AARP is the nation’s leading organization of people age 50 and older. It serves their needs and interests through information and education, research, advocacy and community services which are provided by a network of local chapters and experienced volunteers throughout the country. The organization also offers members a wide range of special benefits and services, including Modern Maturity magazine and the monthly Bulletin.
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Executive Summary

AARP National Survey on Consumer Preparedness and E-Commerce: A Survey of Computer Users Age 45 and Older

Rapid advances in computer-based communication technologies have brought a new dimension to our commercial environment. This new electronic commerce, based on information technology, requires increasing awareness and sophistication on the part of consumers and prompts increasing policy attention to issues of consumer readiness, rights, risks, and responsibilities. A recent panel study conducted by the Stanford Institute for the Quantitative Study of Society found that 65% of households in the United States have a computer and 55% of the population over 18 have access to the Internet either at home or elsewhere.1

As individuals increasingly manage their affairs through the use of information technology, public and private sector decision makers must grapple with the consequences of such activity—the benefits, the risks, the costs, the roles. AARP commissioned a national survey of computer users age 45 and older concerning their views on key issues surfacing in the electronic-commerce debate and their potential readiness as consumers to deal with the changing commercial environment.

This survey, conducted by Market Facts, Inc., examines skill levels of mid-life and older computer users and their opinions on pertinent issues concerning Internet-based business and the potential replacement of paper records (including contracts, warranties, disclosures, and notices) with electronic records that are computer-transmittable. The survey also looks at opinions about privacy of personal financial information, particularly online privacy concerns.

In February 2000, Market Facts conducted this survey of 1,002 computer users age 45 and older, including 375 members of AARP. According to the most recent (1998) Current Population Survey (CPS) data from the U.S. Census, 40% of adults age 45 and older (a total of 35.6 million) have computers in their households. The current survey includes those who have access to computers, whether at home (81% of those surveyed) or somewhere else (50%). These respondents were identified through random digit dialing to reach a nationally representative sample of computer users age 45 and older.

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Key Findings

Computer and Internet Use

♦ Only one in three computer users (32%) are “very confident” in their ability to use their personal computers for financial transactions, while another 25% are “somewhat confident.” Older computer users (65+), those less highly educated (high school or less), and earning lower incomes ($50,000 or less) express significantly lower confidence levels than those under age 65 and those with higher income and educational levels.

♦ Nearly one in four computer users age 45 and older (23%) say they never back up their information on an external storage device and 16% say they never update their programs or applications.

♦ On average, computer users age 45 and older spent $35 last year on software upgrades and $42 on hardware upgrades. However, these averages include 32% who spent less than $10 on software and 58% who spent less than $10 on hardware upgrades.

♦ Computer users age 45 and older report having used computers for an average of 8.5 years. Eight in ten (81%) report having access to the Internet, spending an average of five hours per week using the Internet for e-mail and nine hours per week on other Internet activities. Internet users have accessed the Internet for 3.3 years on average. Nevertheless, just one in three (31%) are “very confident” in their ability to conduct financial transactions over the Internet.

♦ About half (51%) of Internet users age 45 and older say they use the Internet for comparison shopping; and among this group, 39% say they ultimately purchase something over the Internet, while about half make the purchase in a store (48%), by phone (22%), or some other way (11%). Despite this level of Internet purchasing, concern for the potential misuse of personal information while shopping on the Internet is high: 74% of those who have made Internet purchases are concerned (40% "very" concerned) about the privacy of information collected on them while they are making purchases on the Internet. Likewise, among all Internet users, nearly eight in ten (77%) are concerned about their Internet activities being tracked without permission, including 50% who are “very” concerned.

♦ Four in ten computer users surveyed (38%) rate themselves as “novice” computer users. Just over half (54%) call themselves “experienced,” while only 8% rate themselves as “expert.” Those who classify themselves as “novices” are older as well as less educated and less affluent than more experienced computer users.
♦ This large group of novice computer users spends less money than more experienced computer users on both software and hardware upgrades. They use a much smaller variety of types of software, and are less likely to use financial and investing software than more experienced computer users. They are less confident in their ability to use either their computers or the Internet for financial transactions, and few perform routine computer maintenance.

Electronic or Digital Contracts

Many new issues are now surfacing for Internet-based businesses and their customers, such as when businesses should be allowed to replace paper records such as contracts, warranties, and notices with electronic records that are computer-transmittable.

♦ Six in ten respondents (59%) believe that businesses should not have the right to require consumers to use electronic contracts and records in business transactions. About one-third (32%) believe businesses should have this right.

♦ Over four-fifths of those surveyed (81%) think that merchants should pay the costs resulting from the unauthorized use of one's electronic signature.

♦ Two-thirds of consumers (66%) believe that the responsibility for maintaining accurate back-up copies of electronic contracts and related documents should be shared by both consumers and businesses. About one-fifth (18%) think it should be the responsibility of business and 9% think it should be the responsibility of the consumer.

Privacy Concerns

Various financial firms and other businesses routinely collect personal financial information. While this centralization of information can bring mutual benefits to both businesses and consumers, there are legitimate consumer concerns about the potential uses and abuses of these information repositories. Almost all consumers in the present survey oppose the sharing of customer information with other businesses without, at a minimum, an explicit, non-burdensome process of consumer notification and consent.

♦ An overwhelming majority (93%) of those surveyed believe that any personal information they give to a business during a financial transaction remains the property of the consumer and that the information should not be shared with other businesses without the permission of the consumer, including 86% who "strongly" support this position. This strong opinion is shared equally by AARP members and the rest of the 45+ population.
A plurality of respondents (45%) would not permit businesses to share their financial information with other businesses under any conditions. Three in ten (30%) would allow information sharing if they were notified and had the clear option of saying "no," while 18% would allow it with "explicit, recorded permission."

Implications

Skill levels and confidence in using the computer vary substantially in the 45+ population. Specifically, users age 65 and older, less affluent users, and less educated users are generally less proficient and less confident than those who are younger, more affluent, and more educated. Moreover, a substantial portion of computer users appear unable or unwilling to spend money for maintenance and upgrade of their systems. Thus, a significant proportion of computer users age 45 and older are potentially at risk in an increasingly technology-driven commercial environment.

Confidentiality of personal financial information is of utmost concern to this population. Virtually all those surveyed believe that any personal information given to a business during a financial transaction remains the property of the consumer. They express resounding opposition to unrestricted sharing of personal financial information among businesses.2

Those computer users who rate themselves as “novices” – nearly four in ten of all computer users surveyed – are less favorable than more experienced computer users to giving businesses the option of requiring electronic signatures, and more concerned that they would have less protection with electronic contracts. They are also less likely than more experienced computer users to feel sufficiently informed to have an opinion on electronic contracts issues, including issues of responsibility and privacy, and they are less likely to have been approached by companies selling products that protect information privacy.

The potential demands posed by electronic financial transactions and record-keeping, while probably within the capability of seasoned Internet users, may test the proficiency of sizeable subgroups of the population with computers. Thus, any policies for business transactions on the Internet should strike a balance between the advantages and conveniences for industry and government, and consumer interests, especially in light of

2 This finding is consistent with findings from a survey conducted by International Communications Research of Media, Pennsylvania in 1998. AARP Members' Concerns About Information Privacy. Sample of 501 AARP members age 50 and older, Data Digest No. 39, AARP Public Policy Institute, 1999.
pronounced differences in the population's preparedness and capacity to manage the pace and complexity of these technological changes.

Future changes in industry and government policies that increase dependency on automation for business transactions should be sensitive to the range of skill levels among users. The data also suggest opportunities to create, expand, and improve accessibility to consumer education and training in computer use for those subgroups less equipped to handle the pace of technological change.
Background

The advent and rapid growth of electronic commerce (or “e-commerce”) has created many product and service benefits and conveniences for consumers, including greater choice, faster transactions, and easier cost comparisons. At the same time, many of the legal protections on which consumers have traditionally relied for in-person business transactions are not yet in place in the realm of e-commerce, i.e., confidentiality of information, protection from fraud/misrepresentation, and rights with regard to electronic contracts, warranties, and disclosures. A study conducted by Forrester Research (1999) indicates that two-thirds of Internet users are "very" concerned about releasing personal information on the Internet. In a more recent Gallup survey, which found that 54% of American adults use the Internet, only 22% of Internet users say they are "completely" or "very" confident in the security of the information they provide online.

The feasibility of electronic contracts that are legally equivalent to those made on paper will depend on multiple factors, many of which are just now drawing public scrutiny. For example, what technological proficiencies do consumers need to meaningfully engage in such contracts? What marketplace safeguards are required to protect consumers in this environment? AARP sought to learn more about the computer and Internet proficiency and confidence of mid-life and older consumers, their use of such venues for financial transactions, and their views on relevant e-commerce and privacy issues.

Methodology

In February 2000, Market Facts, Inc. conducted a telephone survey for AARP of 1,002 computer users age 45 and older. The sample included 375 AARP members. Interviews averaged 15-17 minutes in length, and included questions covering access to, use of, and proficiency with computer and e-commerce technologies; consumer awareness of e-privacy issues and related risks, rights, and responsibilities; and consumer concerns about the sharing of electronic personal financial information among businesses. The survey also gathered standard demographic information on respondents for analytical purposes.

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The nationally representative sample of computer users 45 and older was drawn by the random digit dialing (RDD) method. The sample size of 1,002 has a margin of error of ± 3% at the 95% confidence level, meaning that in 95% of all samples drawn in the same manner, the response percentages obtained would be within plus or minus 3 percentage points. This margin of error increases when comparisons of smaller subgroups in the sample are made. Statistically significant subgroup differences in report tables are highlighted by alphabetical subscripts associated with each column in the table.

AARP members’ responses were remarkably similar to those of non-members in the 45+ population across most issues covered in the survey. Where there are statistically significant differences, they are noted in the text.

A copy of the survey instrument with frequency of responses can be found in the Appendix.
SECTION I: Computer Use and Proficiency

Summary

This section of the survey was designed to gauge mid-life and older consumers' proficiency in using the computer and to examine the scope of their computer activities. Key findings include:

♦ The average length of time that respondents have been using computers is 8½ years. In general, those with college degrees or graduate education have had significantly more computer experience than those with less education.

♦ A little over half of the sample (54%) describe themselves as "experienced" users, while 38% say they are "novices" and 8% say they are "expert." Novice users are more often age 65 or older and have lower education levels than either experienced or expert users.

♦ The most often used computer application is word processing, used by 81% of those surveyed. Record-keeping and anti-virus programs are used by over two-thirds. Those of lower socio-economic status (income and education) make use of far fewer applications than those with more education and higher incomes. Older respondents (age 65 and older) are less likely to use the computer for record-keeping compared to users under age 55.

♦ Nearly half of all users (46%) say they at least occasionally have trouble with the applications they use (13% "often"). Even among self-described "experienced" users, 43% admit having at least occasional trouble.

♦ There is little uniformity among the computer users surveyed in frequency of backing up information on an external device or updating the programs/applications they use. About four in ten seldom or never back up information (39%), and a comparable proportion never or only occasionally update their applications (43%). Older computer users are less likely than younger users to update programs and back up information as are users with less education and lower income.

♦ Just one in three are "very" confident in their ability to conduct financial transactions on the computer (32%), and an additional 25% are just "somewhat" confident. Four in ten (39%) are not confident, including 24% who are "not at all" confident. Older computer users (65+), those less highly educated (high school or less), and those with
lower incomes ($50,000 or less) express confidence significantly less often than younger users.

♦ Computer users spend little, on average, for software and upgrades for their computers: $35 in the past year for software, and $42 for upgrades/repairs. The amount spent on software decreases steadily with respondents' income level, from an average of $58 for those with incomes above $75,000, to $31 ($30-50,000 income range) to $19 (less than $30,000). Likewise, education is also correlated with the amount spent on software: from $19 for high school graduates to $26 for those with some college to $47 for those with college or graduate degrees.

The findings on computer use and proficiency among those 45 and older illustrate quite clearly that level of skill in using the computer and the use of different applications vary widely across this population. Specifically, users age 65 and older, less affluent, and less educated users are generally less proficient than those who are younger and/or of a higher socio-economic status.
Detailed Findings

1. Profile of Computer Users Age 45 and Older

Data from the U.S. Bureau of the Census indicate that among the population of adults age 45 and older, 40% have a computer at home.5 A study conducted by SeniorNet and Charles Schwab, Inc., likewise found that 40% of those 50 and older have a computer at home and of these, 72% use the Internet.6 The present survey screened for respondents aged 45 and older who have use of a computer at home or somewhere else.

The demographic characteristics of computer users age 45 years and older in the present survey differ in striking ways from the characteristics of the total U.S. population in this age segment (Table 1). Those age 45 and over who are computer users are far younger, far more affluent, and far more educated than the 45+ population as a whole. About four in ten of the entire 45+ population (39%) are between ages 45-54, while 60% of computer users are in this age group. Two-thirds of the 45+ population have incomes below $30,000 annually, while only 17% of computer users are in this income group. Educational achievement shows the same pattern: 55% of the total 45+ population have a high school diploma or less, and only 19% of computer users in the same age segment have this level of education. Conversely, about half of computer users 45 and older (49%) have college or graduate degrees while only 23% of the total population in this age group have four-year degrees or more.

Because computer use is highest among the youngest respondents in the sample, the sample is predominantly under age 55 (60%), but a considerable portion (34%) are between 55 and 75 years old. Few are age 75 or older. About one-fifth of those surveyed did not provide their income level; those who did are evenly divided between those earning under $50,000 and those earning $50,000 or more. Likewise, about half of respondents are college graduates or post-graduates, while half have less than a four-year degree. Nearly four in ten (37%) are members of AARP.

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Table 1. Demographic Comparison of Computer Users 45 and Older with Total U.S. Population 45 and Older

<table>
<thead>
<tr>
<th>Demographics</th>
<th>U.S. Total 45+</th>
<th>Computer Users 45+ (n=1,002)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Age:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>45-54</td>
<td>39%</td>
<td>60%</td>
</tr>
<tr>
<td>55-64</td>
<td>25%</td>
<td>23%</td>
</tr>
<tr>
<td>65-74</td>
<td>20%</td>
<td>11%</td>
</tr>
<tr>
<td>75+</td>
<td>16%</td>
<td>3%</td>
</tr>
<tr>
<td>DK/Ref</td>
<td>3%</td>
<td></td>
</tr>
<tr>
<td><strong>Income:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt; $30,000</td>
<td>66%</td>
<td>17%</td>
</tr>
<tr>
<td>$30-50,000</td>
<td>17%</td>
<td>22%</td>
</tr>
<tr>
<td>$50-75,000</td>
<td>10%</td>
<td>18%</td>
</tr>
<tr>
<td>&gt;$75,000</td>
<td>7%</td>
<td>21%</td>
</tr>
<tr>
<td>DK/Ref</td>
<td>22%</td>
<td></td>
</tr>
<tr>
<td><strong>Education:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt; High School</td>
<td>21%</td>
<td>2%</td>
</tr>
<tr>
<td>HS Diploma</td>
<td>34%</td>
<td>17%</td>
</tr>
<tr>
<td>Some college</td>
<td>22%</td>
<td>29%</td>
</tr>
<tr>
<td>College Grad</td>
<td>14%</td>
<td>28%</td>
</tr>
<tr>
<td>Post Grad</td>
<td>9%</td>
<td>21%</td>
</tr>
<tr>
<td>DK/Ref</td>
<td>3%</td>
<td></td>
</tr>
<tr>
<td><strong>Employment:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Work full time</td>
<td>45%</td>
<td>63%</td>
</tr>
<tr>
<td>Work part time</td>
<td>10%</td>
<td>9%</td>
</tr>
<tr>
<td>Retired</td>
<td>31%</td>
<td>20%</td>
</tr>
<tr>
<td>Other</td>
<td>14%</td>
<td>5%</td>
</tr>
<tr>
<td>DK/Ref</td>
<td>5%</td>
<td></td>
</tr>
<tr>
<td><strong>Gender:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>46%</td>
<td>44%</td>
</tr>
<tr>
<td>Female</td>
<td>54%</td>
<td>56%</td>
</tr>
</tbody>
</table>

2. Computer Experience

Eight in ten computer users (81%) in the present survey have a computer at home and 50% have access somewhere other than home. Older respondents are significantly less likely to have computer access at a workplace than younger users (40% of those 55-64, 19% of those 65-74, and 6% of users 75 or older compared to 54% of those 45-54). AARP members are less likely to have access to a workplace computer compared to non-members (38% vs. 49%), probably a factor of the employment status of AARP members compared to non-members.

The average length of time that respondents have been using a computer is 8½ years, although this figure is much lower for older, less affluent, and less educated computer users. In general, respondents with lower incomes and education levels have had less computer experience (Table 2). Users who are 75 and older differ significantly from those under age 65 in years of computer experience: 41% have 5 years or more, compared to 69% of those 45-54 and 63% of those 55-64.

Table 2. Length of Time Using a Computer
Percent Distribution by Income, Education, and Age (n=1,002)

<table>
<thead>
<tr>
<th>Length of time using computer</th>
<th>&lt; $50k</th>
<th>$50k+</th>
<th>&lt; 4-year degree</th>
<th>4-year degree or higher</th>
<th>45-54</th>
<th>55-64</th>
<th>65-74</th>
<th>75+</th>
</tr>
</thead>
<tbody>
<tr>
<td>(n)</td>
<td>387</td>
<td>392</td>
<td>490</td>
<td>498</td>
<td>603</td>
<td>235</td>
<td>113</td>
<td>34*</td>
</tr>
<tr>
<td>(a)</td>
<td></td>
<td></td>
<td>(b)</td>
<td>(c)</td>
<td>(d)</td>
<td>(e)</td>
<td>(f)</td>
<td>(g)</td>
</tr>
<tr>
<td>Less than 1 year</td>
<td>10 b</td>
<td>5</td>
<td>11</td>
<td>5</td>
<td>7</td>
<td>9</td>
<td>12</td>
<td>9</td>
</tr>
<tr>
<td>1-4 years</td>
<td>35 b</td>
<td>18</td>
<td>32 d</td>
<td>20</td>
<td>24 h</td>
<td>27 h</td>
<td>29</td>
<td>50</td>
</tr>
<tr>
<td>5-9 years</td>
<td>22</td>
<td>24</td>
<td>24</td>
<td>23</td>
<td>24 h</td>
<td>25 h</td>
<td>21</td>
<td>9</td>
</tr>
<tr>
<td>10 years or more</td>
<td>32</td>
<td>53 a</td>
<td>32</td>
<td>51 c</td>
<td>45</td>
<td>38</td>
<td>37</td>
<td>32</td>
</tr>
</tbody>
</table>

*Caution: small base

Q2. About how long have you used a computer?

A majority of respondents rate themselves as "experienced" users (54%), but 38% feel they are "novices." Few give themselves an expert rating (Figure 1).

Those who describe themselves as novice users are more likely to be age 65 or older (50% of those 75+ and 52% of those 65-74, compared to 32% of those ages 45-54). Novice users are also more likely to have less education: six in ten (60%) of those with a high school or less education call themselves novices, compared to 39% with some college and just 28% of those with college or graduate degrees. AARP members are slightly more
likely to call themselves novices than non-members (42% vs. 36%). Retirees are more likely to consider themselves novices than current workers (54% vs. 32%).

\[Figure 1. Self-reported Computer Experience (n=1,002)\]

\begin{figure}
\centering
\includegraphics[width=0.5\textwidth]{fig1.png}
\caption{Self-reported Computer Experience (n=1,002)}
\end{figure}

\textit{Q3. How would you rate your level of experience with a computer?}

On the other hand, experienced users are typically in the youngest age group: 59% of those ages 45-54 are experienced users compared to just 43% of those 65 and older. Six in ten of those with incomes above $50,000 are experienced versus 48% of those with incomes under $30,000. Experienced users are also typically in the highest education category: 59% who have college or graduate degrees rate themselves as experienced users compared to 36% of high school graduates.

\section*{3. Use of Specific Computer Applications}

The most prevalent use of computers cited among the 45+ population is word processing, with 81% of respondents using this application. Record keeping and anti-virus or security software are also commonly used (69% and 68% respectively). Almost half (47%) use the computer for education or training purposes, while fewer than four in ten use it for financial, tax, or investment purposes (Figure 2).
Figure 2. Percent Using Specific Computer Applications (n=1,002)
(Mentioned by 3% or more; multiple responses included)

Q4. Please tell me which of the following types of programs or software you use on the computer. Please say "yes" if you use that program at least occasionally, and "no" if you never use that type of program.

Table 3 indicates subgroup differences in the use of various types of applications. There are significant differences in the frequency of use by socio-economic status of respondents for almost all applications. With the exception of games, those with incomes below $50,000 and a high school education or less are significantly less likely to use the variety of applications with the same frequency as do those with higher incomes and education levels. Those with incomes above $50,000 also report more varied uses of the computer than those with lower incomes. In particular, differences are notably pronounced regarding use of financial planning software (48% vs. 28%), and investing software (32% vs. 13%).

Significant differences by age group are also pronounced except in respondent use of financial planning, investing, legal assistance and game applications. Those ages 65-74 are less likely than their younger counterparts to use the computer for record keeping, anti-virus, training, tax preparation, and spreadsheets; and those 75 and older are less likely to use it for record keeping, anti-virus, and tax preparation than all younger groups.8

8 It should be noted that as the proportion of the sample who are age 75 and older is small at the outset (n=34), the statistical differences between this age group and other age groups are not always discernible. The size of the 75+ subgroup diminishes even further when screening on use of the Internet in the following section of the report.
Table 3. Use of Computer Applications
Percent Distribution by Income, Education, and Age (n=1,002)

How to read the Table: Subscripts indicate column differences. For example, 88a in column (b) indicates a percent that is significantly higher than column (a).

<table>
<thead>
<tr>
<th>Application</th>
<th>&lt; $50k (a)</th>
<th>$50k+ (b)</th>
<th>High Sch or less (c)</th>
<th>Some College (d)</th>
<th>College Grad+ (e)</th>
<th>45-54 (f)</th>
<th>55-64 (g)</th>
<th>65-74 (h)</th>
<th>75+ (i)</th>
</tr>
</thead>
<tbody>
<tr>
<td>(n)</td>
<td>387</td>
<td>392</td>
<td>197</td>
<td>293</td>
<td>498</td>
<td>603</td>
<td>235</td>
<td>113</td>
<td>34*</td>
</tr>
<tr>
<td>Word-processing</td>
<td>72</td>
<td>88a</td>
<td>60</td>
<td>78c</td>
<td>91c</td>
<td>84g</td>
<td>76</td>
<td>80</td>
<td>71</td>
</tr>
<tr>
<td>Record keeping</td>
<td>65</td>
<td>74a</td>
<td>57</td>
<td>70c</td>
<td>73c</td>
<td>72hi</td>
<td>69</td>
<td>60i</td>
<td>50</td>
</tr>
<tr>
<td>Anti-virus</td>
<td>61</td>
<td>76a</td>
<td>56</td>
<td>66c</td>
<td>76cd</td>
<td>74ghi</td>
<td>63h</td>
<td>58</td>
<td>44</td>
</tr>
<tr>
<td>Education/training</td>
<td>44</td>
<td>53a</td>
<td>31</td>
<td>46c</td>
<td>54cd</td>
<td>53gh</td>
<td>41h</td>
<td>27</td>
<td>35</td>
</tr>
<tr>
<td>Financial planning</td>
<td>28</td>
<td>48a</td>
<td>23</td>
<td>36</td>
<td>46cd</td>
<td>39</td>
<td>39</td>
<td>35</td>
<td>26</td>
</tr>
<tr>
<td>Tax preparation</td>
<td>26</td>
<td>36a</td>
<td>17</td>
<td>28c</td>
<td>35cd</td>
<td>33hi</td>
<td>28i</td>
<td>19</td>
<td>12</td>
</tr>
<tr>
<td>Investing</td>
<td>13</td>
<td>32a</td>
<td>13</td>
<td>21</td>
<td>31cd</td>
<td>24</td>
<td>25</td>
<td>28</td>
<td>18</td>
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<td>Legal assistance</td>
<td>11</td>
<td>15</td>
<td>6</td>
<td>12</td>
<td>16c</td>
<td>13</td>
<td>15</td>
<td>11</td>
<td>3</td>
</tr>
<tr>
<td>Spreadsheet</td>
<td>5</td>
<td>10</td>
<td>4</td>
<td>5</td>
<td>10cd</td>
<td>7</td>
<td>10h</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>Games</td>
<td>9</td>
<td>7</td>
<td>9</td>
<td>7</td>
<td>8</td>
<td>8g</td>
<td>4</td>
<td>12g</td>
<td>6</td>
</tr>
</tbody>
</table>

*Caution: small base

Q4. Please tell me which of the following types of programs or software you use on the computer. Please say "yes" if you use that program at least occasionally, and "no" if you never use that type of program.


With the exception of gambling/lottery applications and games, experienced and expert users use all types of applications significantly more often than those self-described as "novice" users. Women are less frequent users of certain applications than men: financial planning (30% vs. 48%), tax preparation (21% vs. 39%), anti-virus software (65% vs. 72%), investing (15% vs. 36%), and legal assistance (10% vs. 17%).

4. Skill Level/Difficulties with Computer Use

A series of questions asked respondents about any difficulties they have with applications, lost information, frequency of backing up information, and confidence in their ability to conduct personal financial transactions on the computer. When asked how often they have difficulty when working with the applications they typically use, nearly half (46%) report at least occasional difficulty with the programs they use (Figure 3).

The 38% who describe themselves as novices are understandably more likely to experience difficulty than either experienced or expert users (56% of novices often or occasionally have trouble, compared to 43% of experienced users and 27% of experts).
Moreover, more than one in five novices say they "often" have difficulty (22%). Men report *seldom* having difficulty more often than women (46% vs. 39%).

**Figure 3. Frequency of Difficulty with Computer Applications, by Self-reported Skill Level (n=1,002)**

<table>
<thead>
<tr>
<th>Skill Level</th>
<th>Often</th>
<th>Occasionally</th>
<th>Seldom</th>
<th>Never</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>13%</td>
<td>33%</td>
<td>42%</td>
<td>11%</td>
</tr>
<tr>
<td>Novice 383</td>
<td>22%</td>
<td>34%</td>
<td>32%</td>
<td>11%</td>
</tr>
<tr>
<td>Experienced 537</td>
<td>7%</td>
<td>36%</td>
<td>49%</td>
<td>9%</td>
</tr>
<tr>
<td>Expert 77</td>
<td>9%</td>
<td>18%</td>
<td>44%</td>
<td>29%</td>
</tr>
</tbody>
</table>

*Caution: small base*

Q5. *How often do you have difficulty working with the computer applications that you typically use?*


When asked how often they have lost information on the computer that cannot be recovered, 87% of those surveyed say they seldom or never have, while 2% say this happens often and 11% say it happens occasionally. Loss of information is related to difficulty using applications: 21% of those who have difficulty with applications have frequently or occasionally lost information, compared to only 5% of those who seldom or never have difficulty. No one with an income above $75,000 and just 1% of those with college degrees often or occasionally lose information, compared to 4% of those with incomes below $30,000 and 5% of those with high school or less education.

Table 4 provides information on the frequency with which respondents back up computer information and update software programs and applications which they use regularly. The data suggest that there is little uniformity among users in the practice of backing up personal and financial information, and even less consistency in updating programs and applications they use regularly.
About four in ten (39%) of the sample say they seldom or never back up their personal or financial information, while just as many say they often do (40%), and another 20% say they occasionally do. About half of those surveyed update applications when necessary (33%) or when a new version is available (22%), but many respondents also report that they do not routinely update the programs and applications they use: 27% update occasionally and 16% never do. Those less likely to back up information often are older (26% of those 65-74 vs. 43% of those 45-64); have incomes between $30-50,000 (37% compared with 48% of those with incomes above $75,000); are retired (29% vs. 44% of workers); and have less education (25% of those with only high school education compared to 42% of those with some college and 46% of those with college or graduate degrees).

**Table 4. Frequency of Backing Up Information and Updating Programs and Applications (n=1,002)**

<table>
<thead>
<tr>
<th>Back up info on storage device:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Often</td>
<td>40%</td>
</tr>
<tr>
<td>Occasionally</td>
<td>20</td>
</tr>
<tr>
<td>Seldom</td>
<td>16</td>
</tr>
<tr>
<td>Never</td>
<td>23</td>
</tr>
<tr>
<td>Update programs/applications:</td>
<td></td>
</tr>
<tr>
<td>As new versions are available</td>
<td>22%</td>
</tr>
<tr>
<td>Only when necessary</td>
<td>33</td>
</tr>
<tr>
<td>Occasionally</td>
<td>27</td>
</tr>
<tr>
<td>Never update</td>
<td>16</td>
</tr>
</tbody>
</table>

Q7. How often do you store or back up personal or business information on an external storage device, for example on a disk, CD or tape? Q8. How often do you update the computer programs and applications that you use "regularly"?


Of the 38% of the sample who describe themselves as novice computer users, 59% seldom or never back up their personal computer information. Those age 75 and older are twice as likely as the sample as a whole to never update the software they use (32% vs. 16%). Also, those with incomes greater than $75,000 are less likely than those with lower incomes to never update their software: 27% of incomes under $30,000; 19% of incomes between $30-50,000; 13% for those between $50-74,000; and. just 6% of those at $75,000 and above.
Thirty percent of novice users never update the applications they use. Even among those who say they are "experienced" users, 40% never or only occasionally update their programs.

Respondents were then asked how confident they are about their ability to use the computer to conduct personal financial transactions such as paying household bills, investing, or shopping. Just one in three (32%) are “very confident” in their ability to conduct personal financial transactions on their computers and another 25% are “somewhat confident.” Four in ten (39%) are not confident, including 24% who are not at all confident. (Figure 4).

![Figure 4. Confidence in Ability to Conduct Personal Financial Transactions by Computer](n=1,002)

Q9. Thinking about your computer skills, how confident are you about your ability to use the computer to conduct personal financial transactions such as paying household bills, investing, or shopping?  

Once again, income, education level, and age are related to how confident respondents feel (Table 5). Older computer users (65+), those less highly educated (high school or less), and those earning lower incomes ($50,000 or less) express confidence significantly less often than younger, more educated, and more affluent users.

Men are also more likely than women to feel very confident about their ability to manage personal financial transactions by computer (39% vs. 27%). Conversely, women more
often say they are not at all confident compared to men (28% vs. 20%). Those who are retired are also less often very confident than those currently employed (23% vs. 36%). Interestingly, one-quarter of self-described "experienced" users admit they are not too or not at all confident in using their computers for financial transactions.

Table 5. Confidence in Ability to Conduct Financial Transactions by Computer
Percent Distribution by Income, Education, and Age (n=1,002)

<table>
<thead>
<tr>
<th></th>
<th>&lt; $50k</th>
<th>$50k+</th>
<th>High Sch or less</th>
<th>Some College</th>
<th>College Grad+</th>
<th>45-54</th>
<th>55-64</th>
<th>65-74</th>
<th>75+</th>
</tr>
</thead>
<tbody>
<tr>
<td>(n)</td>
<td>387</td>
<td>392</td>
<td>197</td>
<td>293</td>
<td>498</td>
<td>603</td>
<td>235</td>
<td>113</td>
<td>34*</td>
</tr>
<tr>
<td>Very confident</td>
<td>27</td>
<td>39a</td>
<td>15</td>
<td>29c</td>
<td>42cd</td>
<td>37gh</td>
<td>29h</td>
<td>20</td>
<td>26</td>
</tr>
<tr>
<td>Somewhat confident</td>
<td>27</td>
<td>26</td>
<td>25</td>
<td>28</td>
<td>24</td>
<td>27</td>
<td>22</td>
<td>24</td>
<td>29</td>
</tr>
<tr>
<td>Not too confident</td>
<td>19b</td>
<td>12</td>
<td>21e</td>
<td>15</td>
<td>12</td>
<td>13</td>
<td>20f</td>
<td>15</td>
<td>12</td>
</tr>
<tr>
<td>Not at all confident</td>
<td>26</td>
<td>20</td>
<td>37de</td>
<td>26e</td>
<td>18</td>
<td>20</td>
<td>27f</td>
<td>35f</td>
<td>32</td>
</tr>
</tbody>
</table>

*Caution: small base

Q9. Thinking about your computer skills, how confident are you about your ability to use the computer to conduct personal financial transactions such as paying household bills, investing, or shopping?

5. Computer-related Expenditures

Respondents who have computers at home were asked two questions regarding the amount of money they spent on software and the amount spent on repairs or upgrading their computers in the last year. A plurality of respondents (32%) spent less than $10 on software and a majority (58%) spent less than $10 on repairs/upgrades/updates (Figure 5). The average amount for software was $35, and for repairs/upgrades, $42.

Software. Respondents ages 65-74 spent an average of $16 on new software, significantly less than those ages 45-54 ($41). Men spent significantly more than women on software ($51 vs. $21). The amount spent on software increases steadily with respondents' income level, from an average of $19 (income of less than $30,000) to $31 ($30-50,000) to $58 (income of more than $75,000). Likewise, education is also related to the amount spent: from $19 for high school graduates to $26 for those with some college to $47 for those with college or graduate degrees.

Respondents who describe themselves as "novice" users spent significantly less on average on software last year than expert or experienced users: $14 for novices compared to $155 for expert users and $32 for experienced users. Those "not too" or "not at all" confident in
their ability to conduct personal financial transactions on the PC spent an average of $15 compared to $48 for those "very" or "somewhat" confident.

Figure 5. Amount Spent on Software and Upgrades/Repairs in the Past Year (n=748)

<table>
<thead>
<tr>
<th>Category</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than $10</td>
<td>32%</td>
</tr>
<tr>
<td>$10-$99</td>
<td>10%</td>
</tr>
<tr>
<td>$100-$299</td>
<td>25%</td>
</tr>
<tr>
<td>$300 or more</td>
<td>26%</td>
</tr>
<tr>
<td>Don't know</td>
<td>8%</td>
</tr>
</tbody>
</table>

Average:
- Software: $35
- Repair/upgrade: $42

Q10a. About how much did you spend last year on new software? Q10b. Repairing, updating or upgrading your computer?


Repairing/updating/upgrading computer. While respondents on the whole spent slightly more on repairs and upgrades than they spent on software last year, the spending patterns are demographically similar to those for software spending. On average, women spent less than men ($26 vs. $62); those with incomes less than $30,000, between $30-$50,000, and between $50-75,000 spent less than those with incomes over $75,000 (averages of $19, $25, $35 and $72 respectively). Those with only a high school education ($16) spent significantly less than those with some college ($38) and those with college or graduate degrees ($55).

Once again, those computer users who say they are novices spent less on upgrades than experienced or experts ($12 vs. $48 and $147 respectively), and those who are not too/not at all confident in conducting financial transactions on the computer spent less than those who are at least somewhat confident in their ability ($16 vs. $60).
SECTION II: Internet Use and Proficiency

Summary

This section of the report explores access to the Internet and patterns of use among computer users in the sample as well as opinions on issues of concern regarding confidentiality in conducting Internet commerce. Key findings include:

♦ Over four-fifths (81%) of those age 45 and older who use computers have access to the Internet while 19% do not. Those without access are quite different demographically from those who have access: those without access are more often age 65 or older, female, have incomes under $30,000, and a high school education or less. Most of those without access say they have no interest in or need for it.

♦ Those with Internet access have been using the Internet for an average of four years. Those with incomes under $50,000 (3.5 years on the Internet) and with high school education or less (2.5 years) have not been online as long as those Internet users with incomes over $75,000 (4.9 years) and college and or graduate degrees (4.5 years).

♦ Internet users spend an average of five hours a week reading or writing e-mail and average nine hours a week on activities other than e-mail.

♦ From a list of 16 possible uses of the Internet, respondents most often cite e-mail (90%) followed by researching product/service information (73%). About half of users engage in education uses, purchasing, and obtaining travel information. From 19% to 30% use the Internet for financial purposes such as financial planning, investing, and banking. Those with incomes below $75,000 make the least varied use of the Internet.

♦ Just one in three (31%) are “very confident” in their ability to conduct personal financial transactions on the Internet and another 27% are “somewhat confident.” About four in ten (37%) are not confident, including 21% who are "not at all" confident.

♦ Strong demographic differences in levels of confidence are apparent: older users say they are less confident than younger; those with less education are less confident than those with college degrees and/or graduate education; and those with incomes less than $50,000 express less confidence than those with incomes above $75,000.
♦ Adults over age 45 are almost evenly divided between those who have used the Internet for comparison shopping and those who have not (51% vs. 49%). While about half (48%) of comparison shoppers eventually purchase the product in a store, 39% say they purchase it over the Internet.

♦ Among Internet users, 54% report that they have purchased something over the Internet in the last year. The average number of purchases was 15. The number of purchases made is strongly related to income: those with incomes under $50,000 are half as likely to make 10 or more purchases as those earning $50,000 or more (25% vs. 52%). Despite this level of Internet purchasing, concern for the potential misuse of personal information is high: 74% are concerned (40% very concerned) about the privacy of Internet purchases. Likewise, among all Internet users, nearly eight in ten (77%) are concerned about their Internet activities being tracked without permission, including 50% who are "very" concerned.

♦ Internet purchasers are overwhelmingly satisfied with their purchases: 82% say the product "completely" met their expectations.

♦ Among those who have never made an Internet purchase, the most frequent reasons given are lack of interest (28%) and concerns about privacy (24%).

♦ While a few respondents (3%) think they have been defrauded in an Internet purchase, most do not (95%).

While Internet use among computer users is pervasive, there are significant differences within the mid-life and older population in use and skill levels. As with general computer use, level of expertise and familiarity with the different uses of the Internet are largely driven by age, education, and income factors. Those who are less familiar with modern telecommunication technologies and who lack the requisite skills stand to risk the most in their e-commerce interactions.
Detailed Findings

This section of the report explores access to the Internet and patterns of use among computer users in the sample, as well as opinions on issues of concern regarding Internet commerce.

1. Internet Access and Frequency of Use

Among the 1,002 computer users 45 and older in the survey, four-fifths (81%) have access to the Internet. Access increases with income and education level of respondents and decreases with age. Men are more likely to have Internet access than women.

Table 6. Percent of Computer Users Age 45 and Older with Internet Access by Income, Education, Gender, and Age (n=1,002)

<table>
<thead>
<tr>
<th></th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>81</td>
</tr>
<tr>
<td>(a) &lt; $30,000</td>
<td>67</td>
</tr>
<tr>
<td>(b) $30-$49,000</td>
<td>79a</td>
</tr>
<tr>
<td>(c) $50-$74,000</td>
<td>86a</td>
</tr>
<tr>
<td>(d) $75,000+</td>
<td>94ab</td>
</tr>
<tr>
<td>(e) &lt; High School*</td>
<td>59</td>
</tr>
<tr>
<td>(f) High School</td>
<td>69</td>
</tr>
<tr>
<td>(g) Some College</td>
<td>77f</td>
</tr>
<tr>
<td>(h) College or Post-graduate</td>
<td>89efg</td>
</tr>
<tr>
<td>(i) Male</td>
<td>86j</td>
</tr>
<tr>
<td>(j) Female</td>
<td>78</td>
</tr>
<tr>
<td>(k) Age 45-54</td>
<td>84lm</td>
</tr>
<tr>
<td>(l) Age 55-64</td>
<td>79</td>
</tr>
<tr>
<td>(m) Age 65-74</td>
<td>76</td>
</tr>
<tr>
<td>(n) Age 75+*</td>
<td>65</td>
</tr>
</tbody>
</table>

How to read the Table: Subscripts indicate row differences. For example, 79a in row (b) indicates a percent that is significantly higher than row (a).

*Caution: small base

Q11. Do you have access to the Internet from any computer that you use?

9 In the SIQSS panel study of adults 18 and older, the proportion of Internet users was 83%. Stanford Institute for the Quantitative Study of Society (SIQSS). Internet Study, December 1999. Menlo Park, CA.
One-fifth (19%) of those who have access to a computer say they do not have access to the Internet. Those without Internet access (n=186) are characteristically different from those who do. More often they are 65 and older, female, and at the lower end of the income and education distributions. Those without access more often identify themselves as computer novices (60%) than experienced/expert (39%). Similarly, two in three (65%) of those without Internet access have little or no confidence in their ability to conduct financial transactions on the computer compared to one in three Internet users (33%).

When asked why they do not have access, nearly half (46%) reply that they have no interest in or need to access the Internet.

**Figure 6. Reasons Given for Not Having Internet Access (n=186)**

*Multiple responses included*

<table>
<thead>
<tr>
<th>Reason</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not interested/no need</td>
<td>11%</td>
</tr>
<tr>
<td>Computer not adequate</td>
<td>9%</td>
</tr>
<tr>
<td>Security/Privacy concerns</td>
<td>8%</td>
</tr>
<tr>
<td>Concerns about inappropriate materials</td>
<td>6%</td>
</tr>
<tr>
<td>No access at work</td>
<td>3%</td>
</tr>
<tr>
<td>Don’t know/refused</td>
<td>5%</td>
</tr>
</tbody>
</table>

Q11a. *Can you please tell me why you do not currently have access to the Internet?*

Among those who have Internet access, 82% have access at home and 48% have access elsewhere. Respondents have been using the Internet for an average of 3.3 years, with a majority (56%) using it for one to four years. There are significant gender, income, and education variations (Table 7). Those with incomes less than $50,000 have not been online as long as those with higher incomes, and those with college or graduate degrees

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10 The Stanford Institute Internet Study (December 1999) revealed that "By far, the most important factors facilitating or inhibiting Internet access are education and age......A college degree boosts the rates of Internet access by well over 40 percentage points compared to the least educated group, while the 65+ population shows a drop of 40 percentage points in rates of access compared to those under 25."
tend to have had online access for a significantly longer time than those with less education. Men are slightly more likely than women to have used the Internet five years or longer.

Table 7. Length of Time Using the Internet
Percent Distribution by Income, Education, and Gender (n=815)

<table>
<thead>
<tr>
<th>Length of time using Internet</th>
<th>Total</th>
<th>&lt; $50k</th>
<th>$50k+</th>
<th>&lt; 4-year degree</th>
<th>4-year degree or higher</th>
<th>Men</th>
<th>Women</th>
</tr>
</thead>
<tbody>
<tr>
<td>(n)</td>
<td>815</td>
<td>286</td>
<td>354</td>
<td>360</td>
<td>444</td>
<td>376</td>
<td>439</td>
</tr>
<tr>
<td>Less than 1 year</td>
<td>15</td>
<td>23b</td>
<td>11</td>
<td>21d</td>
<td>9</td>
<td>11</td>
<td>17e</td>
</tr>
<tr>
<td>1-4 years</td>
<td>56</td>
<td>59</td>
<td>53</td>
<td>60d</td>
<td>53</td>
<td>54</td>
<td>59</td>
</tr>
<tr>
<td>5-9 years</td>
<td>24</td>
<td>17</td>
<td>29a</td>
<td>15</td>
<td>31c</td>
<td>27f</td>
<td>21</td>
</tr>
<tr>
<td>10 years or more</td>
<td>5</td>
<td>2</td>
<td>5</td>
<td>3</td>
<td>7c</td>
<td>7f</td>
<td>3</td>
</tr>
</tbody>
</table>

How to read the Table: Subscripts indicate column differences. For example, 23b in column (a) indicates a percent that is significantly higher than column (b).

Q11c. How long have you had access to the Internet? Overall Mean= 3.3 years

Those who report they are novice computer users have an average length of time online of 1.9 years, increasing to 3.6 years for "experienced" computer users and to 5.8 years for "experts."

Figure 7 indicates the amount of time in an average week that Internet users spend on reading/writing e-mail (5 hours), and on other Internet activities (9 hours). Users spend more time on non-e-mail uses of the Internet, but majorities spend five hours or fewer a week on each type of activity. The findings of Stanford Institute for the Quantitative Study of Society Internet Study show 65% used the Internet fewer than five hours a week for all reasons.11

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11 Op cit., SIQSS (see Executive Summary of this report).
Figure 7. Amount of Time Spent on Internet Weekly (n=815)

- 5 hours or fewer: 76% (E-mail: 57%, Non-e-mail: 57%)
- 6 to 10 hours: 13% (E-mail: 18%, Non-e-mail: 18%)
- More than 10 hours: 9% (E-mail: 23%, Non-e-mail: 23%)

Average:
- E-mail: 5 hours/wk
- Non-e-mail: 9 hours/wk

Q12. Not including e-mail, about how many hours do you now spend on the Internet during an average week?
Q13. About how many hours do you spend reading and writing e-mail during an average week?


2. Specific Types of Internet Use

The two most frequent uses of the Internet for consumers among the 16 uses surveyed are e-mail (90%) and product and service information (73%). Roughly half use the Internet for education, travel, and purchasing merchandise. From 19% to 30% use it for managing finances: for financial planning, banking, or investing (Figure 8).

Demographic differences in particular uses of the Internet are most notable by income and the education levels of users. Overall, more affluent, more educated, and younger groups use a more diverse array of applications. Those with incomes less than $50,000 make the least use of the Internet and are significantly less likely than those with incomes over $75,000 to make use of eleven of the 17 activities on the list. All income groups make comparable use of the Internet for healthcare, insurance, auctioning, gambling, and chatting.
Figure 8. Percent Using Internet for Specific Purposes (n=815)

- E-mail: 90%
- Product/service info: 73%
- Education/training: 55%
- Purchasing merchandise: 53%
- Travel: 50%
- Chatting interactively: 46%
- Newsgroups: 43%
- Healthcare: 42%
- Financial planning: 30%
- Investing: 24%
- Banking: 19%
- Auctioning: 18%
- Real estate: 17%
- Insurance: 10%
- Legal purposes: 10%
- Gambling: 4%

Q15. Please tell me if you have used the Internet for each of the following reasons or purposes. 

Likewise, those with some college or a college degree are more likely than users with only a high school degree to use all but six of the listed Internet applications (Table 8). Further, those with a college or graduate degree are more likely than all those with less education to use the Internet for product service information, purchasing merchandise, travel, investing, and banking.
Table 8. Percent Using the Internet for Specific Purposes
Percent Distribution by Education Level (n=815)

How to read the Table: Subscripts indicate column differences. For example, 73a in column (b) indicates a percent that is significantly higher than column (a).

<table>
<thead>
<tr>
<th>Purpose for Internet Use</th>
<th>High School</th>
<th>Some College</th>
<th>4-year degree or higher</th>
</tr>
</thead>
<tbody>
<tr>
<td>(n)</td>
<td>120</td>
<td>227</td>
<td>444</td>
</tr>
<tr>
<td>Percent using Internet</td>
<td>69</td>
<td>77</td>
<td>89</td>
</tr>
<tr>
<td>E-mail</td>
<td>86</td>
<td>93&lt;sup&gt;a&lt;/sup&gt;</td>
<td>92</td>
</tr>
<tr>
<td>Product/service information</td>
<td>57</td>
<td>73&lt;sup&gt;a&lt;/sup&gt;</td>
<td>80&lt;sup&gt;ab&lt;/sup&gt;</td>
</tr>
<tr>
<td>Education/training</td>
<td>42</td>
<td>55&lt;sup&gt;a&lt;/sup&gt;</td>
<td>60&lt;sup&gt;a&lt;/sup&gt;</td>
</tr>
<tr>
<td>Purchasing merchandise</td>
<td>36</td>
<td>46</td>
<td>62&lt;sup&gt;ab&lt;/sup&gt;</td>
</tr>
<tr>
<td>Travel</td>
<td>27</td>
<td>44&lt;sup&gt;a&lt;/sup&gt;</td>
<td>60&lt;sup&gt;ab&lt;/sup&gt;</td>
</tr>
<tr>
<td>Chatting interactively</td>
<td>45</td>
<td>46</td>
<td>46</td>
</tr>
<tr>
<td>Newsgroups</td>
<td>38</td>
<td>41</td>
<td>47</td>
</tr>
<tr>
<td>Health care</td>
<td>37</td>
<td>46</td>
<td>42</td>
</tr>
<tr>
<td>Financial planning</td>
<td>16</td>
<td>29&lt;sup&gt;a&lt;/sup&gt;</td>
<td>35&lt;sup&gt;a&lt;/sup&gt;</td>
</tr>
<tr>
<td>Investing</td>
<td>18</td>
<td>19</td>
<td>29&lt;sup&gt;ab&lt;/sup&gt;</td>
</tr>
<tr>
<td>Banking</td>
<td>5</td>
<td>17&lt;sup&gt;a&lt;/sup&gt;</td>
<td>24&lt;sup&gt;ab&lt;/sup&gt;</td>
</tr>
<tr>
<td>Auctioning</td>
<td>13</td>
<td>19</td>
<td>19</td>
</tr>
<tr>
<td>Real estate</td>
<td>13</td>
<td>17</td>
<td>18</td>
</tr>
<tr>
<td>Insurance</td>
<td>10</td>
<td>11</td>
<td>10</td>
</tr>
<tr>
<td>Legal/litigation</td>
<td>6</td>
<td>8</td>
<td>13&lt;sup&gt;a&lt;/sup&gt;</td>
</tr>
<tr>
<td>Gambling</td>
<td>7</td>
<td>6&lt;sup&gt;c&lt;/sup&gt;</td>
<td>3</td>
</tr>
</tbody>
</table>

Q15. Please tell me if you have used the Internet for each of the following reasons or purposes.
AARP National Survey on Consumer Preparedness and E-Commerce, February 2000

Gender differences revealed in Internet use include greater use on the part of men than women for all activities except e-mail, health care, education/training, real estate, gambling, and interactive chatting. For these uses, rates between men and women are equivalent.

Users 65 and older are less likely than users ages 45-64 to use the Internet for product/service information, purchasing merchandise, auctioning, and travel.

The only significant difference between AARP members and non-members is in the proportion who use the Internet for legal/litigation purposes (13% of non-members vs. 6% of members).
In addition, those with varying levels of technological proficiency use the Internet differently. Those not too or not at all confident in their computer skills or Internet skills use the Internet significantly less often for all of the surveyed reasons compared to those who are very or somewhat confident in computer or Internet skills. With the exception of insurance and gambling (two infrequently used activities), those who say they are experienced or expert users use the Internet significantly more frequently for all activities listed than those who say they are novices. Those who have made purchases on the Internet use it for all of the listed reasons with significantly greater frequency than those who have never made a purchase.

3. Skill Level/Difficulty with Internet Use

Just one in three (31%) Internet users are very confident in their ability to use the Internet for personal financial transactions such as paying bills, investing, and shopping and another 27% are somewhat confident. Nearly four in ten (37%) are not confident, including 21% who are not at all confident (Figure 9).

![Figure 9. Confidence in Ability to Use the Internet to Conduct Personal Financial Transactions (n=815)](image)

Q14. Thinking about your Internet skills, how confident are you about your ability to use the Internet to conduct personal financial transactions such as paying household bills, investing, or shopping?


Women express less confidence than men (23% very confident compared to 40% of men).

Other demographic variables strongly relate to confidence in using the Internet for financial transactions (Table 9). Older users are less confident than younger; those with
less than college or post-graduate education are less confident than those with college or graduate degrees, and those with incomes under $50,000 are less confident than those earning more than $75,000. AARP members express somewhat less confidence than non-members, with 53% very or somewhat confident compared to 62% of non-members.

Most Internet users (55%) report having had one or two e-mail addresses since they started using the Internet. About one-quarter report having had three to five different addresses, and 17% report having had six or more. Interestingly, retired respondents are more likely than those currently working to have had six or more addresses (23% vs. 15%). AARP members (21%) are also more likely than non-members (15%) to have had six or more e-mail addresses.

Table 9. Confidence in Ability to Conduct Financial Transactions on the Internet

<table>
<thead>
<tr>
<th></th>
<th>&lt; $50k</th>
<th>$50-75k</th>
<th>&gt;$75k</th>
<th>High Sch or less</th>
<th>Some College</th>
<th>College Grad+</th>
<th>45-54</th>
<th>55-64</th>
<th>65-74</th>
<th>75+</th>
</tr>
</thead>
<tbody>
<tr>
<td>(n)</td>
<td>286</td>
<td>152</td>
<td>202</td>
<td>133</td>
<td>227</td>
<td>444</td>
<td>509</td>
<td>185</td>
<td>86</td>
<td>22</td>
</tr>
<tr>
<td>Very confident</td>
<td>25</td>
<td>32</td>
<td>41a</td>
<td>17</td>
<td>26</td>
<td>38de</td>
<td>35ij</td>
<td>29j</td>
<td>19</td>
<td>9</td>
</tr>
<tr>
<td>Somewhat confident</td>
<td>20</td>
<td>27</td>
<td>29</td>
<td>23</td>
<td>30</td>
<td>28</td>
<td>30h</td>
<td>22</td>
<td>22</td>
<td>32</td>
</tr>
<tr>
<td>Not too confident</td>
<td>24c</td>
<td>22c</td>
<td>14</td>
<td>20</td>
<td>22f</td>
<td>13</td>
<td>15</td>
<td>22g</td>
<td>14</td>
<td>32g</td>
</tr>
<tr>
<td>Not at all confident</td>
<td>24c</td>
<td>22c</td>
<td>14</td>
<td>36ef</td>
<td>21</td>
<td>16</td>
<td>18</td>
<td>23</td>
<td>35</td>
<td>18</td>
</tr>
</tbody>
</table>

*Caution: small base

Q14. Thinking about your Internet skills, how confident are you about your ability to use the Internet to conduct personal financial transactions such as paying household bills, investing, or shopping?


Respondents were asked how often they had difficulty keeping track of addresses for important websites. About one in four (23%) at least occasionally have difficulty keeping track of important website addresses; most of the rest either say they never have difficulty (45%) or seldom do (31%) (Figure 10).
Figure 10. Difficulty Keeping Track of Website Addresses (n=815)

Q17. How often do you have difficulty keeping track of addresses for websites that are important to you?

4. Experiences Purchasing Goods/Services on the Internet

Respondents who use the Internet are almost evenly divided between those who have used it to "comparison shop" and those who never have (51% vs. 49%). Men are more likely than women to be comparison shoppers (61% compared to 43% of women), as are those between the ages of 45-54 (59% vs. 45% of those 55-64 and 30% of those 65 and older). Those in the income category over $75,000 (67%) are also more likely to comparison shop on the Internet compared with those with incomes less than $30,000 (39%) and those with incomes between $30-75,000 (51%).

About half (48%) of Internet comparison shoppers eventually purchase the product in a store, but about four in ten (39%) purchase the product over the Internet (Figure 11). This 39% corresponds to 16% of the total sample of 1,002 computer users surveyed.
The single demographic difference distinguishing those comparison shoppers more likely to purchase by Internet is education level (44% of those with college or graduate degrees usually purchase online compared to just 30% of those with some college).

All Internet users (regardless of whether they comparison shop) were asked whether they ever purchased anything over the Internet. Fifty-four percent report that they have. High school graduates are less likely to have purchased online than those with either some college or college/graduate degrees (35% vs. 48% and 60%), and women are less likely to have purchased online than men (48% vs. 60%). Those under age 55 (58%) purchase online more often than all other age groups surveyed.

Respondents who made Internet purchases made an average of 15 purchases over the Internet last year (Figure 12). The number of Internet purchases respondents made is strongly related to income level: about one-quarter of those with incomes under $50,000 made 10 or more purchases last year, and this percentage doubles for those with incomes above $75,000 (52%). Retirees made fewer purchases than those working: 62% of retirees versus 35% of workers made fewer than five.
Figure 12. Number of Internet Purchases Made in the Past Year by Income (n=437 who made purchases)

<table>
<thead>
<tr>
<th>Income Range</th>
<th>Fewer than 5</th>
<th>5–9</th>
<th>10–20</th>
<th>More than 20</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>n=437</td>
<td>41%</td>
<td>22%</td>
<td>25%</td>
<td>11%</td>
</tr>
<tr>
<td>&lt;$30k</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>n=53*</td>
<td>58%</td>
<td>17%</td>
<td>19%</td>
<td>6%</td>
</tr>
<tr>
<td>$30-50K</td>
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<td></td>
</tr>
<tr>
<td>n=93</td>
<td>45%</td>
<td>28%</td>
<td>16%</td>
<td>10%</td>
</tr>
<tr>
<td>$50--75K</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>n=81*</td>
<td>40%</td>
<td>25%</td>
<td>27%</td>
<td>7%</td>
</tr>
<tr>
<td>&gt;$75k</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>n=132</td>
<td>27%</td>
<td>21%</td>
<td>36%</td>
<td>16%</td>
</tr>
</tbody>
</table>

*Caution: Small base

Q20. During the past year, approximately how many times have you purchased goods or services on the Internet?

Internet purchasers are overwhelmingly satisfied with their Internet purchases. Of the 437 respondents who made at least one purchase over the Internet in the past year, a substantial majority (82%) say the product/service completely met their expectations, and another 10% say their expectations were somewhat met. A few report that expectations were only slightly met (1%) or not at all met (4%). However, those with less than high school education and those with incomes below $30,000 were less likely than all other education and income groups to have had their expectations met.

The reasons for not making any Internet purchases given by the 46% of Internet users who have never made a purchase appear in Figure 13.
Figure 13. Reasons For Having Made No Internet Purchases
(n=378)
(Mentioned by 3% or more)

- Not interested: 28%
- Concerns about privacy: 24%
- Don't like to shop online: 15%
- Prefer face-to-face shopping: 11%
- Prefer to examine products: 9%
- Concerned about safety of payment: 6%
- Computer at work not for personal use: 4%
- Not enough product info provided: 4%
- Concern about company/refund policy: 4%
- Concerned about scams: 3%
- Expensive: 3%

Q24. Why have you not made any purchases over the Internet?

About 40% of users who have never made an Internet purchase simply are either not interested in online shopping (28%), or do not like online shopping (15%). About three in ten are concerned either about privacy (24%), safety of payment (6%), or scams (3%). Still others prefer to shop and/or examine products in person (20%).

Concern about Internet privacy as a reason for not purchasing online does not vary across demographic groups in the study. Concern about being scammed is greater among those 75 and older (13% vs. 3% of all other age groups), as is lack of interest (67% vs. 26% of all other age groups).
5. Consumer Concerns Regarding Internet Commerce

Those who have made online purchases generally express a great deal of concern about the privacy of the information they provide to companies when making a purchase. Three in four (74%) are concerned, including 40% who are very concerned and another one-third who are somewhat concerned (Figure 14). Self-described "expert" computer users are more often "not at all" concerned (19%) compared to "novice" users (9%). Those whose incomes are under $30,000 are more often "not at all" concerned (21%) than all other income levels (9%).

**Figure 14. Level of Concern about Privacy of Internet Purchases Among Those Who Have Made Purchases (n=437)**

![Pie chart showing levels of concern about privacy of Internet purchases](chart)

Q22. How concerned are you, if at all, about the privacy of the information you provide when making Internet purchases?

When asked if they think they personally have ever been defrauded or swindled in an Internet shopping transaction, almost all respondents (95%) say they have not, but 3% report that they have. Thus, while personal experience with fraud on the Internet is low, concern about the potential for misuse of personal information is high.
Consumers register high levels of concern regarding the tracking of their Internet activities without permission (all Internet users surveyed were asked this question) (Figure 15). Nearly eight in ten Internet users (77%) are concerned about their activities being tracked without permission, including 50% who are "very" concerned.12 There are no demographic differences in concern about unauthorized tracking. The issue transcends age, income, education, and gender; but those who have made a purchase in the past year are less likely to be "very" concerned than those who have not (45% vs. 56%).

**Figure 15. Level of Concern About Tracking of Internet Activities Without Consumer's Permission**

*(n=815)*

![Pie Chart showing levels of concern](chart.png)

**Q31. How concerned are you, if at all, about your activities on the Internet being monitored or tracked without your permission?**


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12 Findings from a poll of 1,506 adults conducted by National Public Radio/Kaiser/Kennedy School in December 1999 disclose that 59% of Internet users worry that someone may gain access to their financial or personal records, and 54% say the government should do something about loss of privacy on the Internet. National Public Radio, Washington, DC, 1999.
SECTION III: Consumers and E-Commerce Transactions

Summary

This section of the survey reports on the opinions of survey respondents on basic rights and responsibilities regarding the use of electronic or "digital" contracts between consumers and government and businesses. Such items include contracts and associated documents that are conducted online in lieu of traditional paper-based contracts. Key findings on consumer opinions surrounding electronic contracts are:

♦ Six in ten respondents (59%) believe that businesses should not be permitted to require consumers to use electronic contracts and records in business transactions. About one-third (32%) believe businesses should have this right. One in ten offer no opinion on the issue. Those more likely to oppose this business prerogative are those less confident in their ability to conduct financial transactions by computer (63% oppose) compared to those with at least some confidence (56%). Novices less often support this position (28% support) compared to either experienced (34%) or expert users (40%).

♦ Consumers are almost evenly divided between those who think the responsibility for ensuring the consumer's computer can read, store, and print electronic records lies with the business (49%) and those who think it lies with the consumer (42%). One in ten (9%) say they "don't know."

♦ Two-thirds of consumers (66%) believe that the responsibility for maintaining accurate back-up paper copies of electronic contracts and related documents should be shared by consumers and businesses. About one-fifth (18%) say it should be the responsibility of business, and 9% say it should be the responsibility of the consumer.

♦ Those with incomes below $30,000 are more likely than all other income groups to think the responsibility for maintaining records of electronic transactions belongs to the consumer. Those with less confidence in their ability to conduct business transactions on the computer are less likely to say the responsibility should be shared than those with greater confidence (60% vs. 70%).

♦ Over four-fifths of those surveyed (81%) think that the merchant should pay the costs resulting from the unauthorized use of one's electronic signature.
♦ Over half of respondents think that electronic contracts would give them less protection than paper contracts (52%), while about one-third (34%) think they would have the same degree of protection. Those with less computer and Internet proficiency and who call themselves novice users more often say they would get less protection than do those who are more proficient.

♦ Nearly half of respondents (49%) think that businesses should have the option of using electronic contracts with the consent of the consumer regardless of whether or not the transaction takes place on the Internet. For example, business transactions may originate in face-to-face contact, but paperwork could be sent to the consumer online. Slightly over a third (35%) think electronic contracts should be confined to Internet transactions. Sixteen percent could not provide an opinion on this item, suggesting that the concept was unclear to them.

♦ On average, respondents pay eight recurring household bills each month. There is significant variation on this item by income, with higher income respondents (over $75,000) more often paying 10 or more bills compared to those with lower incomes.

The findings in this section indicate that there are certain issues regarding digital contracts where consumer opinion is clearly weighted on one side of the issue. These include: the anticipated lower amount of protection respondents think would be provided by electronic contracts compared to that provided by traditional paper contracts; the responsibility for maintaining accurate records should be jointly shared by business and consumers; the merchant should be responsible for any costs or losses incurred from unauthorized use of an electronic signature (as now with credit cards); and businesses should not have the right to require consumers to engage in electronic contracts.

The computer-user public is more divided on other issues. Those issues are the responsibility to ensure that consumers can read, store and print electronic records and whether businesses should have the option of using digital contracts regardless of whether or not the transaction takes place on the Internet.

Many questions surrounding the concept of digital documents and their legal implications are probably new to consumers. With increasing options to conduct business online, the issues regarding electronic documents may become more personally relevant to consumers. In that environment, the user community will need information and skill to handle these new procedures, risks, and responsibilities handed to them.
Detailed Findings

1. Opinions on Responsibilities Ensuing from Electronic Contracts and Associated Documents

This section of the report analyzes the findings from a series of six questions posed to respondents about Internet-based business and the potential replacement of paper records (including contracts, warranties, disclosures, and notices) with electronic records that are computer-transmittable.

A majority of those surveyed (59%) believe that businesses should not be permitted to require consumers to use an electronic contract or signature in making a particular purchase (Figure 16). Just under one-third, however, feel that businesses should have this right. These opinions are driven primarily by degree of proficiency with computers and the Internet: 40% of expert users and 34% of experienced computer users believe businesses should have this option, compared to just 28% of novice users. Likewise, 36% of those at least somewhat confident in their ability to conduct financial transactions on the Internet support this option, compared to 28% of those with little or no confidence on the Internet.

**Figure 16. Should businesses have the option to require consumers to use an electronic contract, records, or signature to make a particular purchase? (n=1,002)**

Q29. Should businesses have the option to require consumers to use an electronic contract, records, or signature in order to make a particular purchase?
Subgroups more likely to oppose business requiring consumers to use electronic contracts or signatures include those ages 55-64 (65% opposed vs. 56% of those 45-54); those with incomes greater than $75,000 (66% opposed compared to 55% of those making $30-50,000 and 52% of those making between $50-75,000), and those with college or post-graduate degrees (61% compared to 52% of high school graduates). About two-thirds of AARP members (64%) oppose this option for businesses, compared to 56% of non-members.

Respondents were asked if a business should be permitted to use electronic contracts only in transactions that originate online, or also when traditional paper contracts are signed in person (such as an automobile purchase) and subsequent paperwork and notices are sent online. About half of those surveyed believe business should have the option of using electronic contracts regardless of whether or not the transaction originates on the Internet, provided the consumer consents (Figure 17).

![Figure 17. When Should Businesses Have the Option of Using Electronic Contracts? (n=1,002)](image-url)

Q25. *Should businesses have the option to use electronic “contracts” as an alternative to paper contracts with the consent of the consumer? Only when the transaction takes place on the Internet or …? Regardless of where the transaction takes place?*


The youngest respondents (45-54) are more likely than those ages 65-74 to believe these types of contracts should be permitted regardless of where the business transaction takes place (51% vs. 41%), and those age 75 or older are less likely than those under age 65 to say such contracts should take place only for Internet transactions (18% vs. 36%).

Those with Internet access are significantly more likely than those without it to believe such contracts should take place only for Internet transactions (37% vs. 24%). About one-
fifth of novice users had no opinion on this item (21%) compared to 13% of experienced users and 8% of self-described experts.

Sixteen percent of respondents do not offer an opinion on this issue, reflecting significant subgroup differences. Those 65 and older say they "don't know" more often than those under age 65 (28% vs. 13%). Those earning less than $30,000 per year are also more likely to say "don't know" than those with incomes of more than $75,000 (18% vs. 11%) as are those with high school education compared to those with all higher education levels (22% vs. 14%). This suggests the concept and its implications may be less clear to older, less affluent, and less educated individuals.

Respondents are almost evenly divided concerning where responsibility lies for ensuring that the consumer's computer has the capacity to read, store, and print electronic contracts and associated documents (Figure 18). Nearly half believe it is business's responsibility (49%) and 42% think it is the consumer's responsibility. Nine percent do not know.

**Figure 18. Who should be responsible for insuring that the consumer's computer has the capacity to read, print, and store electronic records? (n=1,002)**

![Pie chart showing percentage of respondents who believe business's or consumer's responsibility for ensuring computer's capacity to handle electronic records. Business's responsibility: 49%, Consumer's responsibility: 42%, Don't Know: 9%]

Q26. Proposed legislation requires that legally-binding electronic "records," such as notices of changes in loan interest rates, product recalls, and disclosures of loan conditions, will be permitted only if the consumer's computer has the capacity to receive, store, and print them. In your opinion, who should be responsible for ensuring that the consumer's computer has the capacity to receive these records?


Novice computer users are less likely than experienced users to believe business is responsible to assure the capacity of the consumer's computer to handle electronic records (44% vs. 51%). Those 75 and older tend to have no opinion on the topic (24%) more often than all other age groups. Also, those who are not confident in their ability to conduct
financial transactions on the computer have no opinion on this issue more often than those who are at least somewhat confident (11% vs. 6%).

The issue of legal responsibility for record-keeping associated with electronic contracts is particularly salient in that the potential amount of electronic record-keeping within a single household, particularly those of older and/or lower socio-economic status, may easily exceed what a computer user could reasonably be expected to manage. Two-thirds of computer users surveyed think that the merchant and consumer should share the responsibility for maintaining these records. Almost one in five think the merchant should be solely responsible, and about one in ten think the consumer should be solely responsible (Figure 19).

**Figure 19. Who should have the legal responsibility for maintaining accurate back-up, paper copies of electronic contracts and related documents? (n=1,002)**

<table>
<thead>
<tr>
<th>Option</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Merchant</td>
<td>18%</td>
</tr>
<tr>
<td>Consumer</td>
<td>9%</td>
</tr>
<tr>
<td>Both merchant and consumer</td>
<td>66%</td>
</tr>
<tr>
<td>Don't know</td>
<td>5%</td>
</tr>
<tr>
<td>Neither Party</td>
<td>2%</td>
</tr>
</tbody>
</table>

Q27. Who should have the legal responsibility for maintaining accurate back-up, paper copies of electronic contracts and related documents?


Those earning under $30,000 are significantly more likely to think responsibility lies with the consumer (17% vs. 7%-8% of all higher income groups). Again, those age 75 or older more often "don't know" (24%) who would bear responsibility for backing up materials compared with 3% of those 45-54, 4% of those 55-64, and 10% of those 65-74.

Those without Internet access more often think the consumer should be responsible for the record keeping involved with electronic contracts than those with access (13% vs. 8%). Those who make Internet purchases more often believe that both merchant and consumer
should be responsible compared to those who have not made Internet purchases (72% vs. 64%). Those with less confidence in their ability to conduct financial transactions on the computer are less likely to think the responsibility should be shared than those with greater confidence (60% vs. 70%).

Although two-thirds of respondents (66%) think that the responsibility for accurate electronic record-keeping should be shared by both merchant and consumer, a much greater majority (81%) believe that merchants rather than consumers should be accountable for the cost of an electronic signature used without authorization (Figure 20). Only about one in ten think that the consumer should be liable. One in twelve do not know who should be liable.

**Figure 20. Who should pay the costs for the "unauthorized use" of a customer's electronic signature? (n=1,002)**

![Pie chart showing 81% for Merchant, 11% for Consumer, and 8% for Don't know]

_Q28. Who should pay the costs for the "unauthorized use" of a customer's electronic signature?_
_Source: AARP National Survey on Consumer Preparedness and E-Commerce, February 2000_

Though few think that the consumer should pay costs resulting from unauthorized use of one's electronic signature, older respondents (65-74) are slightly less likely to think so compared to those ages 45-64 (4% vs. 11%). Again, those ages 65-74 and 75 and older more often "do not know" compared to those 45-54 (13% and 18% respectively vs. 6%).

Respondents without Internet access are less likely than those with access to think the merchant should be responsible for paying costs resulting from unauthorized use of one's electronic signature (69% vs. 84%), as are those who say they are novice computer users (77% vs. 83% of experienced users). Almost nine in ten (87%) of those who make Internet purchases think the merchant is responsible, compared to 80% of those who do not purchase online.
Given the changing nature of consumer rights and responsibilities regarding electronic contracts and documents, respondents were asked if they believe electronic contracts would give them more, less, or the same amount of legal protection as a paper contract (Figure 21). A majority of respondents (52%) think they would get less protection, about one-third (34%) feel that they would get the same legal protection provided by a paper contract, but very few (6%) think they would get more.

Figure 21. Would an electronic contract give you more, less, or the same amount of legal protection as a paper document contract? (n=1,002)

More protection 6%

Same protection 34%

Less protection 52%

Don't know 8%

Q30. Do you feel that an electronic contract would give you more, less, or the same amount of legal protection as a paper document contract?

Older computer users are less persuaded than younger ones that they would be afforded the same amount of protection with an electronic contract. The proportion who believe they would get the same protection decreases as age increases: 38% of those ages 45-54, 30% of those 55-64, 22% of those 65-74, and 18% of those 75 or older. Women are more likely than men to think they would get less protection (56% vs. 47%). Non-members are slightly more likely to think they will get more protection than are AARP members (7% vs. 4%). Forty-two percent of respondents with incomes over $75,000 believe they would get the same amount of protection, versus 32% of those with incomes between $50-$75,000.

Even more variation in opinion exists when looking at the computer skill levels of respondents. Respondents with less proficiency on the computer and Internet more
frequently believe they would be afforded less legal protection with electronic contracts. Those who say they are novice computer users are more likely to think they would get less protection (57% compared to 50% of experienced and 42% of expert users).

Those who have difficulty with the applications they regularly use are more likely to think they would get less protection (56%) than those who seldom or never have difficulty (48%). Those without confidence in their Internet skills are also more likely to think they would get less protection (59% vs. 48% of those at least somewhat confident). Respondents who report never making Internet purchases also believe they would get less protection than those who do (57% vs. 47%).

2. Number of Monthly Household Bills

To estimate the magnitude of record-keeping involved for both consumers and merchants who conduct business transactions on the Internet (and who could potentially routinely engage in electronic contracts), respondents were asked the number of recurring household bills they pay monthly.

**Figure 22. Respondent Estimate of Number of Household Bills Recurring Monthly (n=1,002)**

- Ten or more
  - 28%
- Fewer than 5
  - 23%
- Five to nine
  - 38%
- Don't know/refused
  - 11%

Average: 8 bills per month

Q39. On average, about how many recurring household bills, such as car payments, credit card bill, utility bills, mortgage, or rent payments, do you pay per month?

On average, respondents pay eight recurring bills each month, yet nearly three in ten (28%) pay ten or more each month. A plurality (38%) pay five to nine per month, and roughly one-quarter pay fewer than five.

The estimated number of bills varies by income: among those in the highest income bracket, half pay ten or more bills each month. Over three-fourths of respondents with incomes under $30,000 estimate that they pay nine or fewer recurring monthly bills (Figure 23).

There is some indication that those who are more experienced computer users and those with Internet access have a greater number of recurring monthly bills than their less experienced or non-connected counterparts. However, this correlation could be based on the fact that computer proficiency is highly correlated with income level, with income as the driving factor in the number of monthly bills rather than level of computer or Internet expertise.

**Figure 23. Estimate of Number of Monthly Household Bills by Respondent Income (n=1,002)**

<table>
<thead>
<tr>
<th>Income Bracket</th>
<th>9 or fewer</th>
<th>10 or more</th>
</tr>
</thead>
<tbody>
<tr>
<td>$30,000+</td>
<td>19%</td>
<td>79%</td>
</tr>
</tbody>
</table>
| $30,000-
$50,000      | 28%        | 66%        |
| $50,000-
$75,000      | 30%        | 62%        |
| <$75,000         | 50%        | 47%        |

Q39. **On average, about how many recurring household bills, such as car payments, credit card bill, utility bills, mortgage, or rent payments do you pay per month?**
SECTION IV: Consumers and Information Privacy

Summary

This section of the survey examines respondents' opinions on information privacy issues affecting consumers that relate to the sharing of their personal financial information among businesses. Key findings include:

♦ An overwhelming majority (93%) of those surveyed believe that any personal information they give to a business during a business transaction remains the property of the consumer and that the information should not be shared with other businesses without the permission of the consumer. This figure includes 86% who "strongly" support this position.

♦ A plurality of respondents (45%) would not permit businesses to share their financial information with other businesses under any conditions.

♦ Three in ten (30%) of those surveyed would allow information sharing among businesses if they were notified and had the clear option of saying "no."

♦ Eighteen percent would allow their information to be shared with other businesses only with their explicit, recorded permission. Those in the highest income and education categories are slightly more likely to want to require explicit, recorded permission than those with a high school education and incomes under $50,000.

♦ Just 3% would allow personal financial information sharing if there were a rebate or free service offered in exchange, and 2% would permit it without restriction.

♦ Small but equal proportions of respondents say they have been approached by companies offering to sell them goods and services to protect the privacy of their computer information (12%) and Internet activities (13%). Eight percent have been approached about similar services for telephone, pager, or fax.

♦ Consumers express resounding opposition to unrestricted sharing of personal financial information on the part of businesses. These data are consistent with those from a survey conducted by International Communications Research of Media, Pennsylvania in 1998, where results revealed a high level of opposition among AARP members to
the selling of information about customers to businesses (92%), government agencies (93%), and websites (87%).

\textsuperscript{13} AARP Members’ Concerns About Information Privacy. Sample of 501 AARP members age 50 and older, Data Digest No. 39, AARP Public Policy Institute, 1999.
Detailed Findings

1. Opinions on Proprietorship of Personal Information

Almost all consumers in the present survey oppose the sharing of customer information among businesses without, at a minimum, some form of explicit, non-burdensome process of consumer notification and consent.

Nine in ten show overwhelming support for the proprietary rights of the consumer regarding personal information given to businesses during financial transactions (Figure 24). This includes 86% who "strongly" support this position. The only substantive variation by demographic subgroup is that those age 65-74 are slightly more likely than other groups to support this consumer position (96%).

Figure 24. Who Owns Financial Information Provided in a Business Transaction?
(n=1,002)

Q34. "Some people believe that information given to a business during a financial transaction such as securing a loan or purchasing a product becomes the property of the business and that business can do whatever it wants with that information. Others believe that the information is the property of the individual and that businesses have no right to share that information with others without the permission of the consumer. Which do you support?"

14 In a national poll of adults conducted in October 1998 by Roper Starch Worldwide, Inc., 91% believed that the government should make at least some effort in "seeking ways to protect the privacy of individuals in our society" (54% said a "major" effort). Roper Starch Worldwide, Roper Marketing and Public Opinion Research. Washington DC, 1998.
2. Opinions on Sharing/Selling Financial Information

When asked if they would permit businesses that hold personal financial information about them to share it with other companies, nearly half report that they would not allow this sharing under any conditions (45%), and 30% would allow the sharing only if they were notified and had the option of saying "no." About one-fifth (18%) would allow their financial information to be shared if they give explicit and recorded permission. The offer of a rebate or a free service does not enhance the likelihood of consumers' acquiescence to the sharing of information — only 3% would allow such sharing under this circumstance and only 2% would give permission without any restriction at all (Figure 25).

Figure 25. Conditions Under Which Consumers Would Permit Businesses to Share Their Personal Financial Information with Other Companies On or Off the Internet

Q32. Under what circumstances would you be willing to allow a company that you do business with to sell or share financial information that you provided to them with other companies, either on or off the Internet?

There is little significant variation by demographic subgroups in the sample on the information-sharing issue (Table 10): a plurality of all age and socio-economic levels say...
they would "never" permit their information to be shared. However, those in the middle-income range of $50-75k are more likely to say "never" than those with lower incomes (52% vs 41%), as are respondents age 55-74 compared to those under age 55. Respondents with lower incomes (under $50k) are more likely to want to be notified with the option of saying "no" than those with incomes above $75k (37% vs. 27%).

**Table 10. Opinion on Sharing of Personal Financial Information**

Percent Distribution by Income, Education, and Age (n=1,002)

<table>
<thead>
<tr>
<th>Under which condition</th>
<th>$&lt;50k</th>
<th>$50-75k</th>
<th>$&gt;75k</th>
<th>High Sch or less</th>
<th>Some College</th>
<th>College Grad+</th>
<th>45-54</th>
<th>55-64</th>
<th>65-74</th>
<th>75+</th>
</tr>
</thead>
<tbody>
<tr>
<td>(n)</td>
<td>387</td>
<td>176</td>
<td>216</td>
<td>197</td>
<td>293</td>
<td>498</td>
<td>603</td>
<td>235</td>
<td>113</td>
<td>34*</td>
</tr>
<tr>
<td>Under which condition</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Never</td>
<td>(a)</td>
<td>(b)</td>
<td>(c)</td>
<td>(d)</td>
<td>(e)</td>
<td>(f)</td>
<td>(g)</td>
<td>(h)</td>
<td>(i)</td>
<td>(j)</td>
</tr>
<tr>
<td></td>
<td>41</td>
<td>52a</td>
<td>43</td>
<td>44</td>
<td>48</td>
<td>43</td>
<td>41</td>
<td>51g</td>
<td>53g</td>
<td>35</td>
</tr>
<tr>
<td>Only if notified, w/option to say no</td>
<td>37c</td>
<td>30</td>
<td>27</td>
<td>35</td>
<td>28</td>
<td>30</td>
<td>33hi</td>
<td>26</td>
<td>22</td>
<td>32</td>
</tr>
<tr>
<td>With explicit recorded permission</td>
<td>15</td>
<td>14</td>
<td>26a</td>
<td>14</td>
<td>16</td>
<td>21d</td>
<td>19</td>
<td>15</td>
<td>18</td>
<td>18</td>
</tr>
<tr>
<td>Only if rebate/benefit is offered</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>2</td>
<td>4</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Without restriction</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>3</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>3</td>
<td>1</td>
<td>3</td>
</tr>
</tbody>
</table>

*Caution: small base

Q32. Under what circumstances would you be willing to allow a company that you do business with to sell or share financial information that you provided to them with other companies, either on or off the Internet?


Those with the most education (21%) and highest incomes (26%) slightly more often say that they want to give explicit, recorded permission before their information is shared compared to those with only high school education (14%) or those earning under $50,000 (15%).

Those who have never made an Internet purchase are significantly more likely than those who have to say they would "never" permit their financial information to be shared (52% vs. 38%). Those not confident in their computer or Internet skills more often say "never" than those with at least some confidence (50% vs. 41% for general computer skills, and 51% vs. 39% for Internet skills).
3. Experience with Companies Offering to Protect Privacy of Information

All respondents were asked if they have ever been approached by a company offering to protect their information privacy for a fee or a price in exchange for certain protection services including 1) protection of information stored in a computer; 2) protection of activities on the Internet; and 3) protection of information on telephone, pager, or fax. Only a minority of respondents have had any of these offers made to them by a company (Table 11).

Table 11. Percent of Total Respondents Approached by Companies Selling Protection of Certain Products or Services
(n=1,002)

<table>
<thead>
<tr>
<th>Product/Service</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Protect information stored in a computer</td>
<td>12%</td>
</tr>
<tr>
<td>Protect activities while on the Internet</td>
<td>13</td>
</tr>
<tr>
<td>Protect information on telephone, pager, or fax</td>
<td>8</td>
</tr>
</tbody>
</table>

Q33. Have you been approached by any companies offering to protect your information privacy for a fee or price, by providing you with products or services that...?  

No meaningful demographic differences are revealed for the 8% who have received promotions for telephone/pager/fax protection. However, for protection of information on computers and the Internet, some groups appear to be approached somewhat more often than others:

♦ men more than women (16% vs. 10% for both computer and Internet protection)
♦ those currently working more than retirees (13% vs. 7% for computer protection; 15% vs. 7% for Internet protection)
♦ college graduates or post-graduates more than those with high school education only (15% vs. 6% for computer protection; 14% vs. 6% for Internet protection)

Not surprisingly, those who have made Internet purchases are more often approached by companies than those who have not (17% vs. 11% for Internet privacy protection). Those who say they have "expert" computer skills or are "experienced" users are also approached more often than "novices" (22% and 14% vs. 8%).

AARP National Survey on Consumer Preparedness and E-Commerce, March 2000
INTRODUCTION: "Hello, this is__________ calling from Telenation, on behalf of a national consumer group. We are not selling anything."

(IF RESPONDENT SAYS HE/SHE DOESN’T HAVE A COMPUTER, SAY: Then I may just need to ask you a few questions…)  

(IF NECESSARY: You have been called at random and your responses will be kept anonymous and confidential. We're not selling anything, and our study will take only about 15 minutes of your time.)

(IF NOT A CONVENIENT TIME ARRANGE A CALL BACK.)

SCREENING SECTION

Q.C Is there anyone in your household 45 or older who ever uses a computer - either at home or work or anywhere?

(Do not read, record one response. If respondent asks says “no” clarify, “Is there no person age 45 or older who uses a computer in your household, or no one home right now?)

Yes (continue)
No one age 45 or older who uses a computer home right now (arrange call back)
No one living in household who is age 45 or older who uses a computer (terminate)
DK/REF (terminate)

Q.C1 Is that you, or may I speak with that person?

(Do not read, record one response.)

Yes, is person on phone (go to sentence before Q.1)
Yes, informant goes to get eligible person (go to C2)
No one age 45 or older home right now (arrange call back)
Don’t know (terminate)
Refused (terminate)
C2. Hello, we are conducting research on privacy and security among persons 45 and older who use a computer at home or work or someplace else. I just want to confirm that you are 45 or older and use a computer - either at home or work or someplace else?

(DO NOT READ, RECORD ONE RESPONSE)

Yes (CONTINUE)  
No (GO TO Q.C)  
DK/REF (TERMINATE)

This call may be monitored for quality control purposes. [CONTINUE]

My first several questions are about how you use your computer...

**COMPUTER USAGE SECTION**

1. Do you have use of a computer at home, somewhere else, or both home and somewhere else?  
(DO NOT READ. MARK ALL THAT APPLY)  
BASE=TOTAL SAMPLE [n=1,002]

<table>
<thead>
<tr>
<th>Usage</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Home</td>
<td>81%</td>
</tr>
<tr>
<td>Somewhere else</td>
<td>50%</td>
</tr>
</tbody>
</table>

2. About how long have you used a computer? (RECORD EXACT RESPONSE. PROBE IF NECESSARY: PLEASE GIVE ME YOUR BEST ESTIMATE)  
BASE=TOTAL SAMPLE [n=1,002]

<table>
<thead>
<tr>
<th>Duration</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 1 year</td>
<td>8%</td>
</tr>
<tr>
<td>1-4 years</td>
<td>26%</td>
</tr>
<tr>
<td>5-9 years</td>
<td>24%</td>
</tr>
<tr>
<td>10 years or more</td>
<td>41%</td>
</tr>
</tbody>
</table>

3. How would you rate your level of experience with a computer?  
(READ LIST. RECORD ONE RESPONSE)  
BASE=TOTAL SAMPLE [n=1,002]

<table>
<thead>
<tr>
<th>Experience Level</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Novice (Beginner or Near-beginner)</td>
<td>38%</td>
</tr>
<tr>
<td>Experienced user</td>
<td>54%</td>
</tr>
<tr>
<td>Expert</td>
<td>8%</td>
</tr>
</tbody>
</table>

(DO NOT READ)  
Don’t know/Refused --

Now, I’d like to ask you a few questions about the computer applications that you use most frequently.
4. Please tell me which of the following types of programs or software you use on the computer. Please answer “yes” if you use that type of program at least occasionally and “no” if you never use that type of program.
Do you use (INSERT EACH RESPONSE) on the computer?
BASE=TOTAL SAMPLE [n=1,002]

(RECORD ONE RESPONSE FOR EACH.)
   a. Word-processing applications      Yes  81%
   b. Legal or litigation assistance applications (wills, estates, etc) Yes 13%
   c. Financial planning applications   Yes  38%
   d. Tax preparation applications     Yes  29%
   e. Record keeping applications, for addresses, schedules, documents or files Yes  69%
   f. Education or training applications Yes  47%
   g. Gambling or Lottery applications  Yes  5%
   h. Anti-virus or security software (for example, passwords) Yes  68%
   i. Investing applications            Yes  24%
   j. Desk top publishing               Yes  8%
   k. Games                             Yes  8%
   l. Spreadsheet                       Yes  7%
   m. Database                          Yes  3%
   n. Any other programs or software? (SPECIFY) Yes 25%

5. How often do you have difficulty working with the computer applications that you typically use? (Read list. record one response)
BASE=TOTAL SAMPLE [n=1,002]

   Often          13%
   Occasionally   33%
   Seldom         42%
   Never          11%

(DO NOT READ)
   Don’t know/Refused --
6. When working on your computer, how often do you lose information that cannot be recovered-- for example, by accidental deletion or system error?
(READ LIST. RECORD ONE RESPONSE.)
BASE=TOTAL SAMPLE [n=1,002]

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Often</td>
<td>2%</td>
</tr>
<tr>
<td>Occasionally</td>
<td>11%</td>
</tr>
<tr>
<td>Seldom</td>
<td>46%</td>
</tr>
<tr>
<td>Never</td>
<td>41%</td>
</tr>
<tr>
<td>(DO NOT READ)</td>
<td></td>
</tr>
<tr>
<td>Don’t know/Refused</td>
<td>1%</td>
</tr>
</tbody>
</table>

7. How often do you store or back-up personal or business information on an external storage system or device—for example, on a diskette, CD or tape?
(READ LIST. RECORD ONE RESPONSE.)
BASE=TOTAL SAMPLE [n=1,002]

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Often</td>
<td>40%</td>
</tr>
<tr>
<td>Occasionally</td>
<td>20%</td>
</tr>
<tr>
<td>Seldom</td>
<td>16%</td>
</tr>
<tr>
<td>Never</td>
<td>23%</td>
</tr>
<tr>
<td>(DO NOT READ)</td>
<td></td>
</tr>
<tr>
<td>Don’t know/Refused</td>
<td>1%</td>
</tr>
</tbody>
</table>

8. How often do you update the computer programs and applications that you use “regularly”?
(READ LIST. RECORD ONE RESPONSE.)

BASE=TOTAL SAMPLE [n=1,002]

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>As new versions become available</td>
<td>22%</td>
</tr>
<tr>
<td>Occasionally</td>
<td>27%</td>
</tr>
<tr>
<td>Only when necessary</td>
<td>33%</td>
</tr>
<tr>
<td>Never update</td>
<td>16%</td>
</tr>
<tr>
<td>(DO NOT READ)</td>
<td></td>
</tr>
<tr>
<td>Not sure</td>
<td>1%</td>
</tr>
</tbody>
</table>
9. Thinking about your computer skills, how confident are you about your ability to use the computer to conduct personal financial transactions such as paying household bills, investing or shopping? (Read list. record one response.)

BASE=TOTAL SAMPLE [n=1,002]

<table>
<thead>
<tr>
<th>Confidence Level</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very confident</td>
<td>32%</td>
</tr>
<tr>
<td>Somewhat confident</td>
<td>25%</td>
</tr>
<tr>
<td>Not too confident</td>
<td>15%</td>
</tr>
<tr>
<td>Not at all confident</td>
<td>24%</td>
</tr>
</tbody>
</table>

(DO NOT READ)

| Don’t know/Refused        | 3%         |

10. About how much money did you spend last year on…?

(READ LIST. RECORD EXACT RESPONSE FOR EACH. PROBE IF NECESSARY: Please give me your best estimate.)

BASE=TOTAL SAMPLE [n=1,002]

a. New software

<table>
<thead>
<tr>
<th>Amount Range</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than $10</td>
<td>32%</td>
</tr>
<tr>
<td>$10-$99</td>
<td>10%</td>
</tr>
<tr>
<td>$100-$299</td>
<td>25%</td>
</tr>
<tr>
<td>$300 or more</td>
<td>26%</td>
</tr>
<tr>
<td>Don't know</td>
<td>8%</td>
</tr>
</tbody>
</table>

b. Repairing, updating or upgrading your computer

<table>
<thead>
<tr>
<th>Amount Range</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than $10</td>
<td>58%</td>
</tr>
<tr>
<td>$10-$99</td>
<td>5%</td>
</tr>
<tr>
<td>$100-$299</td>
<td>10%</td>
</tr>
<tr>
<td>$300 or more</td>
<td>23%</td>
</tr>
<tr>
<td>Don't know</td>
<td>4%</td>
</tr>
</tbody>
</table>

11. Do you have access to the Internet from any computer that you use?

(DO NOT READ. PROBE IF NECESSARY: Do you have access to an Internet service account that allows you to “go online” and browse the world wide web?)

BASE=TOTAL SAMPLE [n=1,002]

<table>
<thead>
<tr>
<th>Access Status</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>81%</td>
</tr>
<tr>
<td>GO TO Q.11b.</td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>19%</td>
</tr>
<tr>
<td>GO TO Q.11a.</td>
<td></td>
</tr>
<tr>
<td>Don’t Know</td>
<td>--</td>
</tr>
<tr>
<td>GO TO Q.25</td>
<td>--</td>
</tr>
<tr>
<td>Refused</td>
<td>--</td>
</tr>
<tr>
<td>GO TO Q.25</td>
<td>--</td>
</tr>
</tbody>
</table>
IF NO TO Q.11, ASK:

11a. Can you please tell me why you do not currently have access to the Internet?
   (DO NOT READ. RECORD EXACT RESPONSE. REMIND RESPONDENT IF
   NECESSARY: I am not selling Internet Service.)
   (DO NOT READ. RECORD ALL RESPONSES)
   BASE= THOSE NOT USING THE INTERNET T [n=186]

   Not interested; No need; No use 46%
   Concerned about the expense; Too costly, etc. 11%
   Concerned about personal privacy 4%
   Concerned about the security of your
   financial information 2%
   Concerned about learning a new technology;
   Not good with computer; Not confident
   of personal skills to use 8%
   Only have computer at work 8%
   Computer is not adequate 9%
   Inappropriate material for children 3%
   Other (SPECIFY) 8%
   DK/Refused 5%

IF NO TO CURRENT INTERNET ACCESS IN Q.11, GO TO Q.25.
IF YES TO Q.11, ASK:

11b. Where do you have access to the Internet?
   (READ LIST. MARK ALL THAT APPLY)
   BASE=THOSE USING THE INTERNET [n=815]

   Home 82%
   work 42%
   Library 1%
   Someone else's home 1%
   School 1%
   All other 2%

11c. How long have you had access to the Internet? (Record EXACT Response)
   BASE=THOSE USING THE INTERNET [n=815]

   Less than 1 year 15%
   1-4 years 56%
   5-9 years 24%
   10 years or more 5%
12. Not including e-mail, about how many hours do you now spend on the Internet during an average week? (RECORD EXACT RESPONSE. PROBE IF NECESSARY: Please give me your best estimate.)

BASE=THOSE USING THE INTERNET [n=815]

- 5 or less: 57%
- 6-10: 18%
- 10 or more: 23%
- DK/ref: 1%

13. About how many hours do you now spend reading and writing e-mail during an average week? (RECORD EXACT RESPONSE. PROBE IF NECESSARY: Please give me your best estimate.)

BASE=THOSE USING THE INTERNET [n=815]

- 5 or less: 76%
- 6-10: 13%
- 10 or more: 9%
- DK/ref: 1%

14. Thinking about your Internet skills, how confident are you about your ability to use the Internet to conduct personal financial transactions such as paying household bills, investing, or shopping?

(READ LIST. RECORD ONE RESPONSE.)

BASE=THOSE USING THE INTERNET [n=815]

- Very confident: 31%
- Somewhat confident: 27%
- Not too confident: 16%
- Not at all confident: 21%

(DO NOT READ)
- Don’t know/Refused: 4%
15. Please tell me if you have used the Internet for each of the following reasons or purposes. Please answer “yes” if you have ever used it for the purpose I read or “no” if you haven’t. (READ LIST. RECORD ONE RESPONSE FOR EACH.) BASE=THOSE USING THE INTERNET [n=815]

Have you ever used to the Internet for (INSERT EACH RESPONSE)

RANDOMIZE ORDER:

a. E-mail Yes 90%

b. news groups Yes 43%

c. product and service “information” Yes 73%

d. travel (for example purchasing tickets) Yes 50%

e. medical or pharmacy or healthcare purposes Yes 42%

f. purchasing of other merchandise, including software Yes 53%

g. education or training Yes 55%

h. banking Yes 19%

i. investing Yes 24%

j. insurance Yes 10%

k. financial advice or planning Yes 30%

l. legal or litigation purposes Yes 10%

m. real estate Yes 17%

n. auctioning or advertising something Yes 18%

o. gambling or lotteries Yes 4%

p. chatting or communicating interactively Yes 46%

16. How many different e-mail addresses have you had altogether, including your current one(s), at home, school, or work since you started going on the Internet? (RECORD EXACT RESPONSE. PROBE IF NECESSARY: PLEASE GIVE ME YOUR BEST ESTIMATE.) BASE=THOSE USING THE INTERNET [n=815]

2 or less 55%

3-5 26%

6 or more 17%

DK 2%
17. How often do you have difficulty keeping track of address for websites that are important to you? (Read list. record one response)
   BASE=THOSE USING THE INTERNET [n=815]
   
   Often 7%
   Occasionally 16%
   Seldom 31%
   Never 45%
   (DO NOT READ)
   Don’t know/Refused 1%

18. Do you ever use the Internet for comparison-shopping?
   (DO NOT READ. RECORD ONE RESPONSE)
   BASE=THOSE USING THE INTERNET [n=815]
   
   Yes 51% GO TO Q.19.
   No 49% GO TO Q.20.
   Don’t know/refused -- GO TO Q.20.

IF YES TO Q.18, ASK:
19. After comparison shopping on the Internet, how do you usually purchase the items…?
   (READ LIST. RECORD ALL RESPONSES)
   BASE=THOSE WHO COMPARISON SHOP ON THE INTERNET [n=419]
   
   On the Internet 39% GO TO Q. 20
   By phone 22% GO TO Q. 19a
   In the store  48% GO TO Q. 19a
   Some other way 11% GO TO Q. 19a
   (DO NOT READ)
   Do not usually buy items 1% GO TO Q. 19a
   Don’t know/Refused 1% GO TO Q. 19a

19a. Have you ever purchased anything over the Internet?
   (DO NOT READ. RECORD ONE RESPONSE. )
   BASE=ALL THOSE USING THE INTERNET [n=815]
   
   Yes 54% GO TO Q.20.
   No 46% GO TO Q.24.
   Don’t Know/Refused -- GO TO Q.24
20. During the past year, approximately how many times have you purchased goods or services on the Internet? (RECORD EXACT RESPONSE. PROBE IF NECESSARY: PLEASE GIVE ME YOUR BEST ESTIMATE.)
BASE=THOSE WHO HAVE PURCHASED ON THE INTERNET [n=437]

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; 5</td>
<td>41%</td>
</tr>
<tr>
<td>5-9</td>
<td>22%</td>
</tr>
<tr>
<td>10-20</td>
<td>25%</td>
</tr>
<tr>
<td>&gt;20</td>
<td>11%</td>
</tr>
<tr>
<td>DK</td>
<td>1%</td>
</tr>
</tbody>
</table>

21. Thinking about the last product you purchased on the Internet, how well did this product meet your expectations? (READ LIST. RECORD ONE RESPONSE.)
BASE=THOSE WHO HAVE PURCHASED ON THE INTERNET [n=437]

<table>
<thead>
<tr>
<th>Response</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Completely</td>
<td>82%</td>
</tr>
<tr>
<td>Somewhat</td>
<td>10%</td>
</tr>
<tr>
<td>Only slightly</td>
<td>1%</td>
</tr>
<tr>
<td>Not at all</td>
<td>4%</td>
</tr>
<tr>
<td>DK</td>
<td>3%</td>
</tr>
</tbody>
</table>

22. How concerned are you, if at all, about the privacy of the information you provide when making Internet purchases? (Read LIST. record one response)
BASE=THOSE WHO HAVE PURCHASED ON THE INTERNET [n=437]

<table>
<thead>
<tr>
<th>Concern Level</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very concerned</td>
<td>40%</td>
</tr>
<tr>
<td>Somewhat concerned</td>
<td>34%</td>
</tr>
<tr>
<td>Not too concerned</td>
<td>13%</td>
</tr>
<tr>
<td>Not at all concerned</td>
<td>11%</td>
</tr>
<tr>
<td>(DO NOT READ)</td>
<td></td>
</tr>
<tr>
<td>Don’t know/Refused</td>
<td>2%</td>
</tr>
</tbody>
</table>

23. Do you believe you ever been defrauded or swindled over the Internet?
(DO NOT READ. RECORD ONE RESPONSE.)
BASE=THOSE WHO HAVE PURCHASED ON THE INTERNET [n=437]

<table>
<thead>
<tr>
<th>Response</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>3%</td>
</tr>
<tr>
<td>No</td>
<td>95%</td>
</tr>
<tr>
<td>Don’t know/not sure</td>
<td>1%</td>
</tr>
<tr>
<td>Refused</td>
<td>1%</td>
</tr>
</tbody>
</table>
ASK THOSE WHO HAVE NEVER MADE PURCHASE IN Q.19a.
IF RESPONDENT MADE PURCHASE IN Q.19a SKIP TO Q.25

24. Why have you not made any purchases over the Internet? (PROBE: Any other reasons?)
(DO NOT READ. RECORD ALL RESPONSES.)
BASE=THOSE WHO ARE ON THE INTERNET BUT HAVE NOT PURCHASED ON THE INTERNET [n=378]

Not interested 28%
Don’t like to shop online 15%
Prefer to examine products “in person” 9%
Prefer face-to-face transactions 11%
Expense 3%
Not enough information was provided about the products 4%
Concerns about the reputation of the company 2%
Concerns about refund policy 2%
Concerns about privacy 24%
Concerned about product quality 2%
Concerned about the safety of the payment system 6%
Concerned about being scammed or otherwise victimized 3%
Don’t know how to shop/purchase online 2%
Company computer/not for personal use 4%
Other (SPECIFY) 4%
DK/refused 7%

Q.25-31 ASK ALL:
Many new issues have been raised for Internet-based businesses and their customers. There are proposals in Congress that would specify when businesses would be allowed to replace paper records such as contracts, warranties, and notices with electronic records that are computer-transmittable. The next few questions ask your opinions regarding the use of electronic documents. The first question is…

RANDOMIZE ORDER OF Q.25-31

25. Should businesses have the option to use electronic “contracts” as an alternative to paper contracts with the consent of the consumer … (Read list. record one response)
BASE=TOTAL SAMPLE [n=1,002]

Only when the transaction takes place on the Internet, or 35%
Regardless of where the transaction takes place? 49%
(DO NOT READ) Don’t know/refused 17%
26. Proposed legislation requires that legally-binding electronic “records,” such as notices of changes in loan interest rates, product recalls, and loan conditions, will be permitted only if the consumer’s computer has the capacity to receive, store, and print them. In your opinion, who should be responsible for ensuring that the consumer’s computer has this capacity?

(READ LIST. RECORD ONE RESPONSE)

BASE=TOTAL SAMPLE [n=1,002]

- The business, 49%
- The consumer, or 42%

(DO NOT READ)
- Don’t know 9%
- Refused 1%

27. Who should have the legal responsibility for maintaining accurate backup, paper copies of electronic contracts and related documents?

(READ LIST. RECORD ONE RESPONSE)

BASE=TOTAL SAMPLE [n=1,002]

- The merchant 18%
- The consumer 9%
- Both parties, or 66%
- Neither party 2%

(DO NOT READ)
- Don’t know 5%

28. Should the merchant or the customer be responsible for paying the cost if the customer’s “electronic signature” is used without the customer’s permission?

(READ LIST. RECORD ONE RESPONSE)

BASE=TOTAL SAMPLE [n=1,002]

- The merchant, or 81%
- The consumer 11%

(DO NOT READ)
- Don’t know 8%

29. Should businesses have the option to require consumers to use an electronic contract, records, or signature in order to make a particular purchase? (DO NOT READ. RECORD ONE RESPONSE)

BASE=TOTAL SAMPLE [n=1,002]

- Yes 32%
- No 59%
- Don’t know 9%
30. Do you feel that an electronic contract would give you more, less, or the same amount of legal protection as a paper document contract? (Do NOT READ. RECORD ONE RESPONSE)

BASE=TOTAL SAMPLE [n=1,002]

More 6%
Less 52%
The same amount 34%

(DO NOT READ)
Don’t know 8%

ASK ONLY INTERNET USERS:

31. How concerned are you, if at all, about your activities on the Internet being monitored or tracked without your awareness or permission? (READ LIST. RECORD ONE RESPONSE)

BASE=THOSE USING THE INTERNET [n=815]

Very concerned 50%
Somewhat concerned 27%
Not too concerned 13%
Not at all concerned 9%

(DO NOT READ)
Don’t know 1%

RANDOMIZE ORDER OF Q.32-34

32. Under what circumstances would you be willing to allow a company that you do business with to sell or share the financial information that you provided to them with other companies, either on or off the Internet?

BASE=TOTAL SAMPLE [n=1,002]

(READ LIST. RECORD ONE RESPONSE)

Without any restriction 2%
Only with explicit & recorded permission, 18%
Only if you got an additional benefit such as a rebate or free service 3%
Only if you are notified and have the option to say no 30%
Never 45%

(DO NOT READ)
Don’t know 2%
33. Have you been approached by any companies offering to protect your information privacy for a fee or price, by providing you with products or services that…
(READ LIST. RECORD ONE RESPONSE FOR EACH.)
BASE=TOTAL SAMPLE [n=1,002]

a. Protect information stored within the computer    Yes: 12%  No: 85%  DK:2%
b. Protects your activities while on the Internet   Yes: 13%  No: 86%  DK:1%
c. Protect your information on the telephone, pager or messenger, or fax Yes: 8%  No: 90%  DK:1%

34. Some people believe that information given to a business during a transaction such as securing a loan or purchasing a product becomes the property of the business and the business can do whatever it wants with that information. Others believe that that information is the property of the individual and that businesses have no right to share that information with others without the permission of the consumer. Which do you support? (DO NOT READ. RECORD ONE RESPONSE)
BASE=TOTAL SAMPLE [n=1,002]

It is property of the business and the business can do whatever it wants with that information, or
Is the property of the individual and businesses have no right to share that information with others without the permission of the consumer

Don’t know/Refused (SKIP TO Q35)

34a. Do you strongly, moderately, or slightly support that opinion?

<table>
<thead>
<tr>
<th>Property of Individual</th>
<th>Property of Business</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly</td>
<td>93%</td>
</tr>
<tr>
<td>Moderately</td>
<td>5%</td>
</tr>
<tr>
<td>Slightly</td>
<td>1%</td>
</tr>
<tr>
<td>Don’t Know/No Answer/Ref</td>
<td>1%</td>
</tr>
</tbody>
</table>
DEMOGRAPHICS: BASE=TOTAL SAMPLE [n=1,002]

My last few questions are to help us classify our results.

35. Are you currently...
   (READ LIST. RECORD ONE RESPONSE)

   Employed full-time 63%
   Employed part-time 9%
   Retired (not working) 20%
   Homemaker 3%
   Unemployed (looking for work) --
   Something else (SPECIFY) 2%

   (DO NOT READ)
   Don't know --
   Refused 1%

36. What is the highest level of education you have completed?
   (READ LIST. RECORD ONE RESPONSE)

   Grade school/Elementary school --
   Some high school 2%
   High school graduate 17%
   Technical or vocational school 3%
   Some college 26%
   College graduate (4 years) 28%
   Post-graduate studies 21%

   (DO NOT READ)
   Don't know --
   Refused 1%

37. What is your age? (PROBE, IF NECESSARY, WITH RANGES)

   45-54 60%
   55-64 23%
   65-74 11%
   Over 75 3%
   Refused 2%
38. Are you or your spouse a member of the following organizations?
(READ LIST. RECORD ONE RESPONSE FOR EACH.)

a. Triple A – American Automobile Association Yes 37%
b. AOL – America Online Yes 26%
c. AARP, The American Association of Retired Persons Yes 37%

39. On average, about how many recurring household bills, such as car payments, credit card bills, utility bills, mortgage or rent payments, do you pay per month? (RECORD EXACT RESPONSE. PROBE IF NECESSARY: PLEASE GIVE ME YOUR BEST ESTIMATE.)

< 5 23%
5-9 38%
10-20 26%
>20 2%
DK/Refused 11%

40. Now, for statistical purposes only, please stop me when I get to the category that includes your household's total income in 1999, before taxes.
(READ list. RECORD ONE RESPONSE)

Less than $10,000 2%
Between $10,001 and $20,000 5%
Between $20,001 and $30,000 10%
Between $30,001 and $40,000 12%
Between $40,001 and $50,000 9%
Between $50,001 and $75,000 18%
Between $75,001 and $100,000 11%
More than $100,000 10%
(DO NOT READ)
Refused/No answer 22%

41. What is your five-digit zip code?
(RECORD EXACT RESPONSE)

Those are all the questions I have, thank you for your time.
INTERVIEWER RECORD SEX

Male 44%
Female 56%