

# **AOL/NCSA Online Safety Study**

Conducted by America Online and the National Cyber Security Alliance

December 2005



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*Sample Size: 354 homes  
(64% broadband, 36% dial-up)*

## SURVEY HIGHLIGHTS

Home computers lacking core protections  
*(recently-updated anti-virus software, a properly-configured firewall, and/or spyware protection)*

**81%**

Home computer users who have received at least one phishing attempt via e-mail over the prior two weeks

**23%**

Home computers lacking current virus protection  
*(not installed or not updated in prior week)*

**56%**

Home computers lacking properly-configured firewall

**44%**

Home computers lacking any spyware protection software

**38%**

## INTRODUCTORY SURVEY QUESTIONS:

Do you keep any sensitive information on your home computer, such as personal correspondence, resumes or professional records, or health or financial information?	<b>Yes</b>	<b>68%</b>
	<b>No</b>	<b>32%</b>
Do you use the Internet for “sensitive” transactions from your home computer, such as banking, stock trading, or reviewing personal medical information?	<b>Yes</b>	<b>74%</b>
	<b>No</b>	<b>26%</b>
In general, how safe do you feel your home computer is from online threats?	<b>Very safe</b>	<b>22%</b>
	<b>Somewhat safe</b>	<b>61%</b>
	<b>Not very safe</b>	<b>12%</b>
	<b>Not at all safe</b>	<b>5%</b>
How safe do you feel your computer is from viruses?	<b>Very safe</b>	<b>23%</b>
	<b>Somewhat safe</b>	<b>56%</b>
	<b>Not very safe</b>	<b>15%</b>
	<b>Not at all safe</b>	<b>6%</b>
How safe do you feel your home computer is from hackers?	<b>Very safe</b>	<b>21%</b>
	<b>Somewhat safe</b>	<b>55%</b>
	<b>Not very safe</b>	<b>18%</b>
	<b>Not at all safe</b>	<b>6%</b>

## SECURITY PERCEPTIONS AND RISKS – KEY AREAS

### PHISHING / IDENTITY THEFT:

FROM SURVEY: Have you heard the term “Phishing” before?	<b>Yes</b>	<b>42%</b>
	<b>No</b>	<b>56%</b>
FROM SURVEY: [Of users who had heard the term] Could the respondent accurately define “Phishing”? <i>(base: 149)</i>	<b>Accurate</b>	<b>57%</b>
	<b>Inaccurate</b>	<b>43%</b>
FROM SURVEY: Have you received a phishing attempt in the past <i>(based on accurate definition)?</i>	<b>Yes</b>	<b>61%</b>
	<b>No</b>	<b>39%</b>
FROM SCAN: [Of users who participated in the phishing portion of the study] How many respondents received phishing attempts in the past two weeks? <i>(base: 100)</i>	<b>Yes</b>	<b>23%</b>
	<b>No</b>	<b>77%</b>
FROM SURVEY: [Of users who had received phishing attempts] Did this look like a legitimate e-mail to you when you first saw it?	<b>Yes</b>	<b>70%</b>
	<b>No</b>	<b>30%</b>

## SECURITY PERCEPTIONS AND RISKS – KEY AREAS

### PHISHING / IDENTITY THEFT: *(continued)*

<p>FROM SURVEY: Have you or do you believe you have ever fallen victim to a phishing scam by accidentally signing into a fake website or filling out a form placed on a web site by a scam artist?</p>	<p><b>Yes</b>      <b>6%</b> <b>No</b>        <b>94%</b></p>
<p>FROM SURVEY: Has anyone you know (such as a friend / family member) ever fallen victim to a phishing scam?</p>	<p><b>Yes</b>      <b>18%</b> <b>No</b>        <b>82%</b></p>
<p>FROM SURVEY: Has someone ever stolen your credit card number and used it for unauthorized transactions, compromised your bank account, taken out an unauthorized loan in your name, or otherwise misused your identity?</p>	<p><b>Yes</b>      <b>15%</b> <b>No</b>        <b>85%</b></p>
<p>FROM SURVEY: Do you think your identity or financial information was stolen online by a scam artist or virus, or was it stolen offline by a criminal in the real world? <i>(base: 54)</i></p>	<p><b>Online</b>      <b>15%</b> <b>Offline</b>     <b>72%</b> <b>Both</b>        <b>6%</b> <b>Don't know</b> <b>7%</b></p>

### VIRUS PROTECTION:

<p>FROM SURVEY: Have you ever had a virus on your computer?</p>	<p><b>Yes</b>      <b>55%</b> <b>No</b>        <b>38%</b> <b>Don't know</b> <b>7%</b></p>
<p>FROM SURVEY: Do you currently have any viruses on your computer?</p>	<p><b>Yes</b>      <b>11%</b> <b>No</b>        <b>75%</b> <b>Don't know</b> <b>14%</b></p>
<p>FROM SCAN: Does the respondent currently have one or more virus infections on their computer?</p>	<p><b>*</b></p> <p><b>Yes (all users)</b>      <b>12%</b> <b>No (all users)</b>      <b>88%</b></p> <p><b>Yes (NB users)</b>     <b>16%</b> <b>No (NB users)</b>     <b>84%</b></p> <p><b>Yes (BB users)</b>     <b>9%</b> <b>No (BB users)</b>     <b>91%</b></p>

\* NB = Narrowband  
BB = Broadband

## SECURITY PERCEPTIONS AND RISKS – KEY AREAS

### VIRUS PROTECTION: *(continued)*

FROM SCAN: How many different viruses are on each infected computer (average)?	<b>6.8</b>
FROM SCAN: Most viruses found on single machine during scan:	<b>53</b>
FROM SURVEY: How well do you understand the difference between a firewall and anti-virus software?	<b>Very well 23%</b> <b>Somewhat well 32%</b> <b>Not very well 28%</b> <b>Not at all well 17%</b>
FROM SURVEY: Do you currently have anti-virus software on your computer?	<b>Yes 81%</b> <b>No 13%</b> <b>Don't know 6%</b>
FROM SCAN: Does the respondent currently have some type of anti-virus software on their computer?	<b>Yes (all users) 83%</b> <b>No (all users) 17%</b>  <b>Yes (NB users) 76%</b> <b>No (NB users) 24%</b>  <b>Yes (BB users) 87%</b> <b>No (BB users) 13%</b>
FROM SURVEY: [Of users with self-described virus protection] How often do you generally update your anti-virus or virus scanning software? <i>(base: 289)</i>	<b>Weekly/daily (incl. automatically) 68%</b> <b>Monthly 11%</b> <b>Yearly 9%</b> <b>Never 12%</b>
FROM SCAN: When was the anti-virus or virus scanning software on the respondent's computer last updated?	<b>Within past week 44%</b> <b>Within past month 27%</b> <b>Within past six months 7%</b> <b>Longer than six months 5%</b> <b>No virus protection on computer 17%</b>
FROM SCAN: Percent of respondents who either have no anti-virus protection or have not updated their protection within the past week:	<b>56%</b>

## SECURITY PERCEPTIONS AND RISKS –KEY AREAS

### SPYWARE:

FROM SURVEY: Have you heard the term “spyware” before?	<b>Yes</b> 96% <b>No</b> 4%
FROM SURVEY: Spyware and adware are software programs that quietly sit on your computer and can deliver pop-ups or other advertisements to you based on where you go and what you do online. Based on this description, do you think you have any spyware or adware on your machine right now?	<b>Yes</b> 46% <b>No</b> 54%
FROM SCAN: Does the respondent have any known spyware/adware programs installed on their computer?	<b>Yes (all users)</b> 61% <b>No (all users)</b> 39%  <b>Yes (NB users)</b> 62% <b>No (NB users)</b> 38%  <b>Yes (BB users)</b> 60% <b>No (BB users)</b> 40%
FROM SCAN: [Of respondents who said they had children in the household under 18] Does the respondent have any known spyware/adware programs installed on their computer?	<b>Yes</b> 69% <b>No</b> 31%
[Of respondents who said they do not have children in the household under 18] Does the respondent have any known spyware/adware programs installed on their computer?	<b>Yes</b> 58% <b>No</b> 42%
FROM SCAN: Does the respondent have an anti-spyware/adware program installed on their computer?	<b>Yes</b> 62% <b>No</b> 38%
FROM SURVEY: Can you name any of the adware or spyware programs that are on your machine right now? (base: 163)	<b>Yes</b> 18% <b>No</b> 82%
FROM SCAN: Percentage of respondents that had common pieces of spyware/adware on their machines: (base: 163)	<b>Gator/Gain</b> 21% <b>Cydoor</b> 20% <b>Claria</b> 16% <b>Ezula</b> 16% <b>WhenU</b> 14% <b>180 Solutions</b> 11% <b>SaveNow</b> 10% <b>ISTBar</b> 10% <b>Dyfuca</b> 8% <b>MyWay</b> 7%

## SECURITY PERCEPTIONS AND RISKS – KEY AREAS

### SPYWARE: *(continued)*

FROM SURVEY (post-scan): [AFTER SHOWING RESPONDENT RESULTS OF SPYWARE SCAN] Did you know that [all of] these programs were on your computer? <i>(base: 216)</i>	<b>Yes</b> 8% <b>No</b> 92%
FROM SURVEY (post-scan): [AFTER SHOWING RESPONDENT RESULTS OF SPYWARE SCAN] Do you know what [all of] these programs are and what they do? <i>(base: 216)</i>	<b>Yes</b> 9% <b>No</b> 91%
FROM SURVEY (post-scan): [AFTER SHOWING RESPONDENT RESULTS OF SPYWARE SCAN] Did you give permission for someone to install [all of] these programs on your computer? <i>(base: 216)</i>	<b>Yes</b> 9% <b>No</b> 91%
FROM SURVEY (post-scan): [AFTER SHOWING RESPONDENT RESULTS OF SPYWARE SCAN] Would you like us to remove [all of] these programs from your computer? <i>(base: 216)</i>	<b>Yes</b> 81% <b>No</b> 19%

### SYMPTOMS OF SPYWARE:

FROM SURVEY: Approximately how many pop-up ads do you get in the typical week?	<b>Average response (all users): 17</b>
FROM SURVEY: Do you use a pop-up blocker as part of your Internet service or a browser toolbar?	<b>Yes</b> 70% <b>No</b> 30%
FROM SURVEY: [Of respondents who said “yes”] Do you still get pop-ups even when using your pop-up blocker? [base: 247]	<b>Yes</b> 60% <b>No</b> 40%
FROM SURVEY: Has your browser home page – the web site you see when you first go online – ever suddenly changed to a different page without your permission?	<b>Yes</b> 21% <b>No</b> 79%
FROM SURVEY: When you perform a search, have you ever been redirected to a different search engine or received a pop-up offering search results from a different web site?	<b>Yes</b> 40% <b>No</b> 60%

## SECURITY PERCEPTIONS AND RISKS – KEY AREAS

### FILE SHARING PROGRAMS:

FROM SCAN: Does the respondent's computer have a file-sharing program installed on it?	<b>Yes</b>	<b>24%</b>
	<b>No</b>	<b>76%</b>
FROM SCAN: Does the respondent's computer have a file sharing program that is currently active or open on it?	<b>Yes</b>	<b>11%</b>
	<b>No</b>	<b>89%</b>

### FIREWALL:

FROM SURVEY: How well do you understand what a firewall is and how it works?	<b>Very well</b>	<b>17%</b>
	<b>Somewhat well</b>	<b>43%</b>
	<b>Not very well</b>	<b>27%</b>
	<b>Not at all well</b>	<b>13%</b>
FROM SURVEY: Do you currently use a firewall to protect your computer and Internet connection?	<b>Yes</b>	<b>67%</b>
	<b>No</b>	<b>33%</b>
FROM SURVEY: [If answer was 'yes'] Do you believe your firewall is set up correctly? <i>(base: 238)</i>	<b>Yes</b>	<b>96%</b>
	<b>No</b>	<b>4%</b>
FROM SCAN: Does the respondent's computer have a firewall currently running on it?	<b>Yes (all users)</b>	<b>78%</b>
	<b>No (all users)</b>	<b>22%</b>
	<b>Yes (NB users)</b>	<b>60%</b>
	<b>No (NB users)</b>	<b>40%</b>
	<b>Yes (BB users)</b>	<b>89%</b>
	<b>No (BB users)</b>	<b>11%</b>
FROM SCAN: [Of users with a firewall] What type of firewall protection does the respondent have on their computer? <i>(base: 276)</i>	<b>Hardware</b>	<b>71%</b>
	<b>Software</b>	<b>11%</b>
	<b>Both</b>	<b>18%</b>
FROM SCAN: [Of users with a firewall] Does the firewall have any open ports? <i>(base: 276)</i>	<b>Yes</b>	<b>28%</b>
	<b>No</b>	<b>72%</b>
FROM SCAN: Percent of all users who do not have a properly configured firewall on their computer (no open ports):		<b>44%</b>



## SECURITY PERCEPTIONS AND RISKS – KEY AREAS

### WIRELESS ACCESS:

FROM SCAN: Does the respondent use a wireless connection to access the Internet?	<b>Yes</b>	<b>26%</b>
	<b>No</b>	<b>74%</b>
FROM SCAN: Of respondents using a wireless connection, what percent use WEP or WPA-PSK to encrypt their wireless communication? (base: 91)	<b>WEP</b>	<b>41%</b>
	<b>WPA-PSK</b>	<b>12%</b>
	<b>No encryption</b>	<b>47%</b>

### PARENTAL CONTROLS:

FROM SURVEY: Do you currently have any children under the age of 18 living in your household?	<b>Yes</b>	<b>33%</b>
	<b>No</b>	<b>67%</b>
FROM SURVEY: Do you currently use any parental control software on your computer?	<b>Yes (all users)</b>	<b>8%</b>
	<b>No (all users)</b>	<b>92%</b>
FROM SCAN: Does the respondent currently have parental controls software enabled on the computer?	<b>Yes (all users)</b>	<b>10%</b>
	<b>No (all users)</b>	<b>90%</b>
	<b>Yes (NB users)</b>	<b>16%</b>
	<b>No (NB users)</b>	<b>84%</b>
	<b>Yes (BB users)</b>	<b>8%</b>
	<b>No (BB users)</b>	<b>92%</b>

## DEMOGRAPHICS

### GENDER

Male	44%
Female	56%

### AGE

18 - 20	7%
21 - 30	32%
31 - 40	30%
41 - 50	12%
50+	19%

### HIGHEST LEVEL OF EDUCATION OBTAINED

Partial High School Education	2%
High School Diploma	22%
Partial College Education	23%
Associates Degree	7%
BA / BS	37%
MA / MS	8%
PHD	1%

### HOUSEHOLD INCOME

Less than \$20,000	11%
\$20,000 – \$35,000	13%
\$35,001 – \$50,000	19%
\$50,001 – \$75,000	21%
\$75,001 – \$100,000	17%
\$100,001+	19%

### CHILDREN IN HOUSEHOLD

Children under 18	33%
No children under 18	67%

### EXPERIENCE LEVEL (self-described)

Novice	30%
High-End Novice	33%
Intermediate	29%
Expert	8%

### MISCELLANEOUS

Number of years online	8.02
Number of computers in household	1.9

## **AOL/NCSA Online Safety Study**

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### **Methodology:**

The 2005 AOL-NCSA Online Safety Study was conducted through in-person interviews and technical analyses with a typical sample of 354 dial-up and broadband adult computer users, at least 18 years of age, from September 19 to October 28, 2005. The sample included 225 broadband users (64 percent) and 129 dial-up users (36 percent). The survey also included a sub-sample of 100 households that were asked to turn off all spam filtering software and retain all e-mails received for a two week period. Technicians reviewed all of the e-mail received by each of these households to determine the level of phishing activity.

Study participants were interviewed in more than 22 cities and towns and a dozen different states and metropolitan areas. Metropolitan areas in which participants took part included Los Angeles, California; metropolitan Washington, D.C.; Naples, Florida; Atlanta, Georgia; Minneapolis/St. Paul, Minnesota; Rochester, New York; Raleigh, North Carolina; Houston, Texas; Seattle, Washington; and Virginia Beach, Virginia. Subjects were questioned on various aspects of online security to assess their understanding and awareness of the issue. The subjects' computers were then examined by technicians using commercially-available products to examine their firewall settings, anti-virus software, potential virus infections, parental control software, and spyware. Participants were selected by an independent market analysis organization.

### **About The National Cyber Security Alliance**

A not-for-profit 501(c)(3) organization, the National Cyber Security Alliance (NCSA) is a central clearinghouse for cyber security awareness and education for home users, small businesses, and the education community. A public-private partnership, NCSA sponsors include the Department of Homeland Security, Federal Trade Commission, and many private-sector corporations and organizations. For more information, and to review the top 8 cyber security practices, visit [www.staysafeonline.org](http://www.staysafeonline.org).

### **About America Online, Inc.**

America Online, Inc. and its subsidiaries operate a leading network of Web brands and the largest Internet access subscription service in the United States. Brands include the AOL® service, the AOL.com® website, and the AIM®, MapQuest®, Moviefone, Netscape®, CompuServe® and ICQ® services. America Online offers a range of digital services including the TotalTalk® voice service. The company also has operations in Canada and Europe. America Online, Inc. is based in Dulles, Virginia, and is a wholly owned subsidiary of Time Warner Inc.(TWX)