City of Seattle
Information Technology
Indicators Project

Residential Technology Survey

Summary of Results

City of Seattle
Department of Information Technology

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Overview

The City of Seattle is committed to fostering a technology healthy city. It is the City's intention to track the influence of technology on the city over time, and this report presents a summary of the results of this effort - the first Seattle residential survey on technology. This broad spectrum survey was conducted in November of 2000 as a part of the City of Seattle's Information Technology Indicators Project.

In May 2000, the City of Seattle's Department of Information Technology completed development of a set of Information Technology Indicators, marking the first time that a comprehensive effort has been made to look at the full range of impacts that technology is having on our region. These indicators were developed as a joint effort between the Department of Information Technology and the Citizens Telecommunications and Technology Advisory Board along with significant public input and the help of a broad-based Technical Advisory Group representing industry, education, and community groups.

The data from this survey will be combined with other new research and existing data to make up the first complete data set for these technology indicators.

Specifically, this study measures the following:

- Residents' ownership and access to information technology.
- Residents' usage of information technology.
- Levels of technology literacy and fluency.
- Integration of technology into local community activities.
- Awareness and use of City services online and on cable TV.
- Residents' feelings about privacy, security and safety on the Internet.
- Residents' perceptions of the impact that technology is having on their personal time, quality of life, and the quality of life for the City.

The City of Seattle contracted with Northwest Research Group, Inc. to conduct the survey. A total of 1,011 interviews were completed. Scientific Telephone Sampling, a nationally recognized sampling company, provided the sample. A strict random sampling procedure was used and no quotas were established. However, in order to ensure equal representation of demographic groups that can sometimes be under-represented using a telephone methodology, survey data were compared to 2000 census data on key measures (age, gender, income and ethnicity) throughout data collection. It was noted that certain demographic groups (Asian and African-American groups and people with lower incomes) were under-represented in the completed interviews. To correct for this, a targeted RDD (random digit dial) sample for Asian and African-American individuals was purchased. Targeted RDD sample is randomly generated sample in zip codes that have a higher percentage than the general population of individuals meeting the target criteria.

The survey meets or exceeds generally accepted levels of reliability. The margin of error for questions asked of the total 1,011-person sample is plus or minus 3.1 percent.

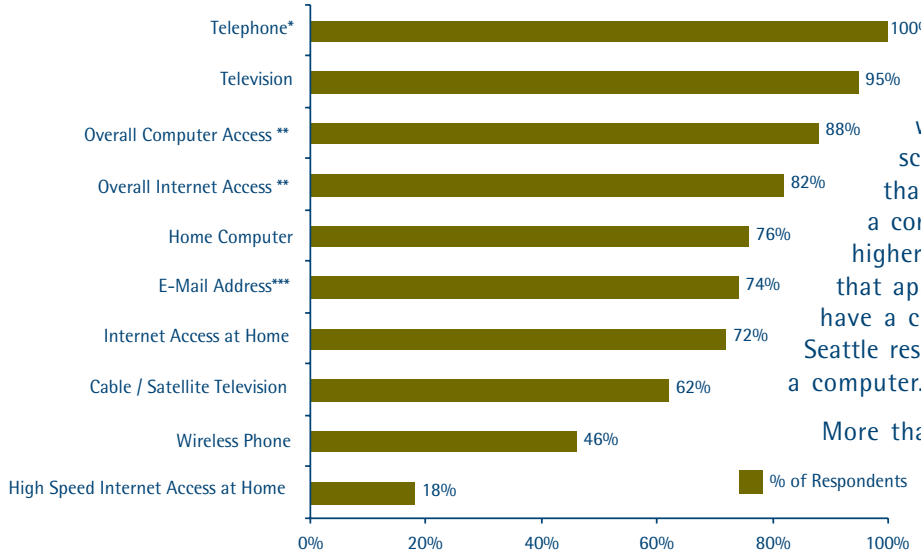
A more detailed technical report is available at http://www.cityofseattle.net/tech or by contacting Emily Bancroft at (206) 233-2751, emily.bancroft@ci.seattle.wa.us.

Access to Information Technology

Overall, Seattle residents have high access to information technology.

Seattle residents are connected to a range of information technologies. Almost all respondents (95%) have television sets at home, with three out of five (60%) subscribing to cable television. An additional five percent subscribe to satellite television. Almost half (46%) of residents have a wireless phone.

ACCESS TO INFORMATION TECHNOLOGY
(BASE: ALL RESPONDENTS)



* Since this was a telephone survey, 100% of respondents had a telephone. Other studies show that 98% of Seattle residents have a phone.

** Overall access to a computer and the Internet includes respondents who have access to a computer at home, work, school, library, community center, Internet café, and/or some other location.

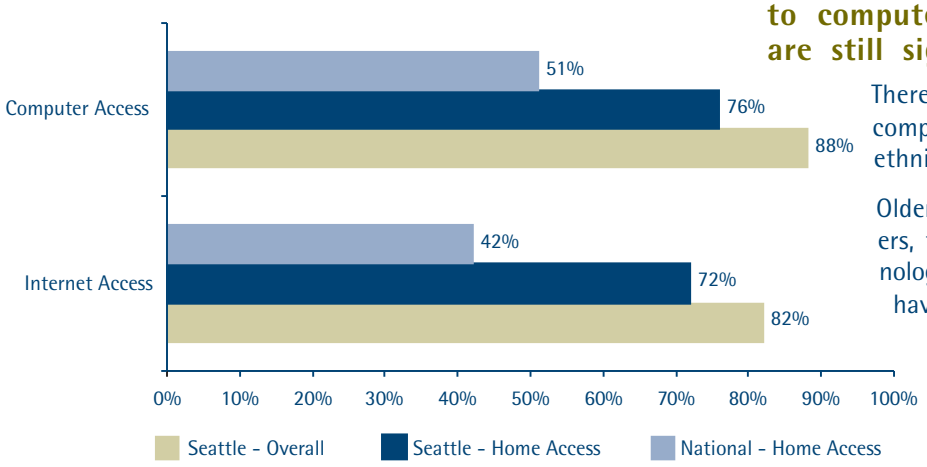
*** This question was not asked to the 9% of respondents who indicated that they had never used a computer.

Most residents have access to a computer and, to a lesser extent, the Internet.

The majority (88%) of respondents have access to a computer at home, work, and/or some other location (e.g., school, library, community center). More than three out of four (76%) residents have a computer in their home. This is significantly higher than the national average that suggests that approximately half (51%) of US households have a computer in the home.[1] Almost all (91%) Seattle residents have at least some experience with a computer.

More than four out of five (82%) residents have access to the Internet at some location, and almost three-quarters (72%) have access at home. Again, this is significantly higher than the national average that suggests that approximately two out of five (42%) households have Internet access.[2] Nearly all (93%) of those with access to a computer have Internet access.

ACCESS TO COMPUTER AND THE INTERNET



Despite high numbers of overall access to computers and the Internet, there are still significant divides.

There are significant differences in access to computers and the Internet based upon age, ethnicity, education and income.

Older respondents have less access to computers, the Internet, and other information technologies. Over half (56%) of those who do not have access to a computer are 65 years or older.

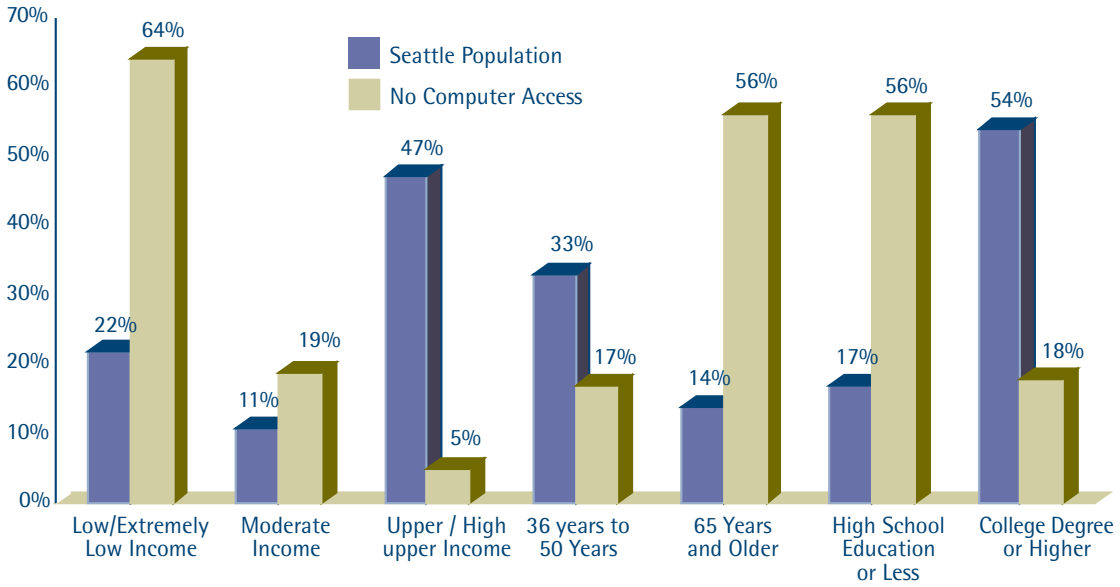
Low income and lower education levels remain significant barriers to computer access. Overall, as income and education increases, access to computers and the Internet also increases.

[1] Results from a biannual study conducted by the National Telecommunications and Information Administration. *Falling Through the Net: Towards Digital Inclusion.* Released October 2000. (see http://www.digitaldivide.gov/reports)

[2] *Falling Through the Net,* October 2000.

SIGNIFICANT DIVIDES IN OVERALL COMPUTER ACCESS (COMPARED TO THE SEATTLE POPULATION)

(BASE: ALL RESPONDENTS)

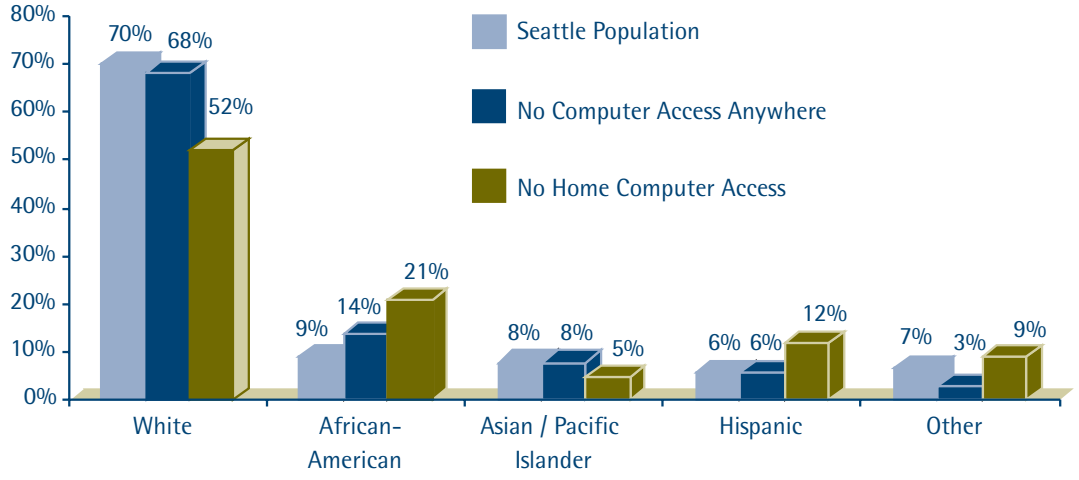


Asian Americans are the most likely to have access to computers and the Internet regardless of income. For African Americans and Caucasians, access to computers and the Internet increases with income. However, for all income levels, African Americans have lower access to technology than do Caucasians, and are more reliant on access outside the home. Only half (52%) of African-American respondents have access to a computer in their home compared with 80 percent of Asian American and 70 percent of Caucasian respondents. One out of five (19%) African-Americans do not have any access to a computer; 30 percent have access outside their homes only.

More than one out of three (35%) African-Americans do not have access to the Internet, compared with 16 percent of Caucasians and 11 percent of Asian Americans. One out of five (21%) of African Americans have access to the Internet outside the home only compared with 14% of Asian Americans and only 8 percent of Caucasians.

ETHNICITY DIVIDES IN COMPUTER ACCESS (COMPARED TO THE SEATTLE POPULATION)

(BASE: ALL RESPONDENTS)

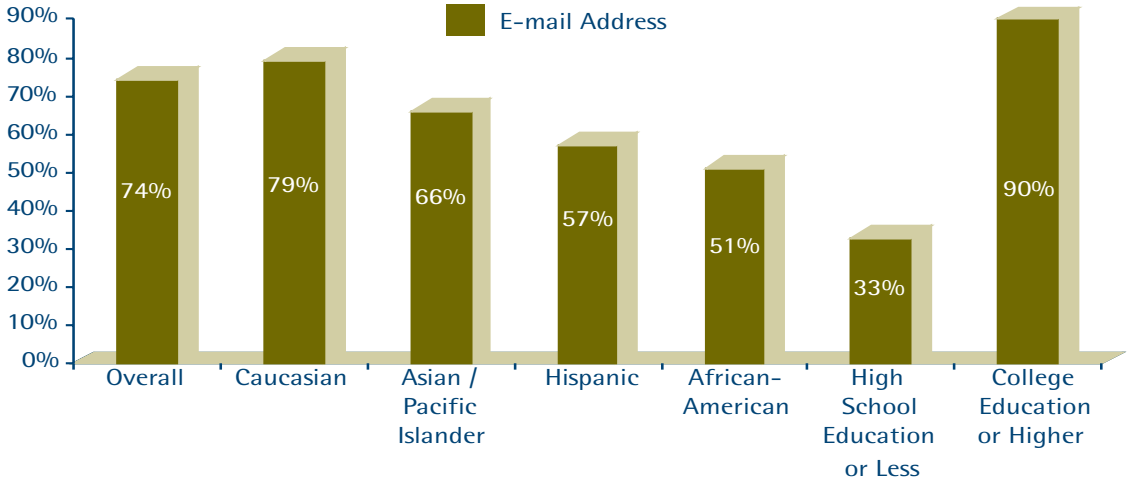


Most residents have an e-mail address.

Almost three out of four (74%) Seattle residents have an email address. This is an increase from the 1999 Citywide Residential survey where only sixty-one percent of residents reported having e-mail. Of those residents who have used a computer before, 85% have an e-mail address. Those with Internet access at home are more likely than those with access elsewhere to have an e-mail address (94% to 51% respectively).

Although a high percentage of residents do have e-mail addresses, there are still significant divides. Only 33% of respondents with a high school education or less have an email address, compared to 90% of those with college educations or higher. African-Americans and Hispanics with computer experience are less likely to have an e-mail address than Caucasians.

THE DIVIDE IN ACCESS TO E-MAIL



Seattle residents have access to new computers and high speed Internet access.

27% HAVE HIGH-SPEED ACCESS

More than three out of five (62%) of home computers are two years old or less, with the average age of a computer in a Seattle home at 2.42 years. Residents living in moderate and middle income households are the most likely to have a computer in the home that is one year old or less (49% and 52% respectively). Only 34 percent of upper income households and 31 percent of upper middle income households have a computer that is one year old or less.

One out of four (27%) residents with Internet access have a high-speed connection using DSL or a cable modem. Nationwide, only 10.7% of online households have high speed Internet access.[3] A large number of respondents did not know the speed of their connection, giving instead the name of their service provider.

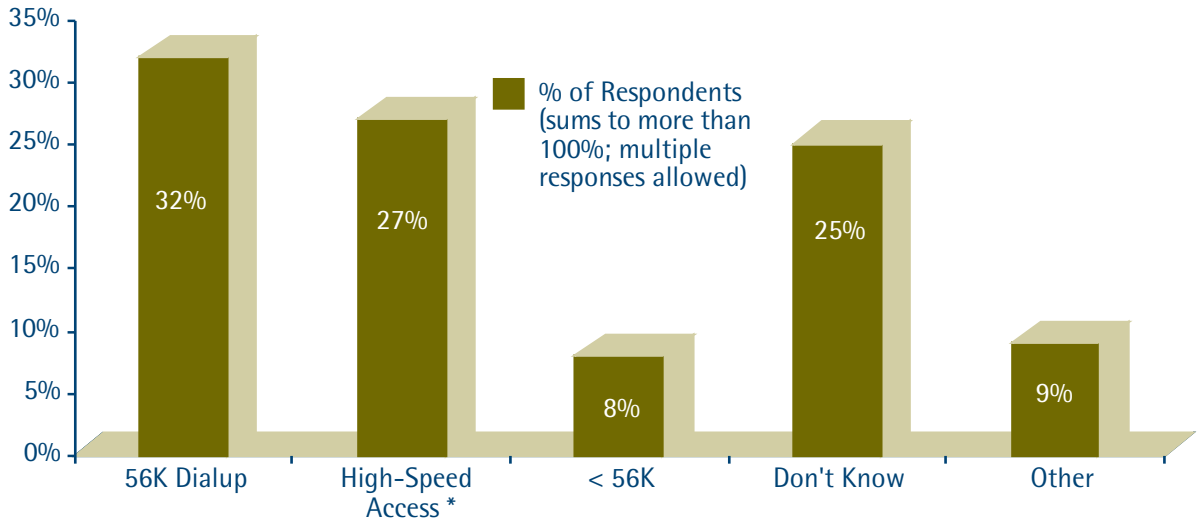
[3] Falling Through the Net, October 2000.

Men are more likely than women to connect at 56K – 37 percent compared with 26 percent, respectively – or to have a high speed connection – 30 percent compared with 21 percent, respectively.

Younger respondents – notably those between the ages of 18 and 25 – are more likely than older respondents to have high-speed Internet access. More than one of three (36%) respondents between the ages of 18 and 25 with Internet access at home have high-speed access compared with 26 percent of those between the ages of 26 and 35 and only 20 percent of those 65 and older.

Higher income households are more likely to have high-speed connections. Thirty-two percent (33%) of those in the upper / high upper income categories have a high-speed connection at home compared with 21 percent of those in the upper middle and moderate / middle brackets and only 17 percent of those in the low / extremely low brackets. Among those households with high-speed access, DSL is concentrated in higher income households, while cable modem access is more evenly spread across the different income segments.

SPEED OF INTERNET ACCESS AT HOME
(BASE: INTERNET ACCESS AT HOME)



Lack of interest and cost are the two largest barriers to computer access at home.

Thirty-eight percent (38%) of those without a computer at home said that they did not want to own a computer. Men are more likely than women to state that they do not want a computer, as are respondents over the age of 65.

An additional thirty percent of respondents cited cost as the reason for not having a computer at home. Cost is more likely to be listed as a barrier for younger respondents - those 35 and under - and for low to moderate income respondents.

Additional barriers to home access included not knowing how to use a computer (11%) and having sufficient access elsewhere (9%).

For those that have computers but don't have Internet access, not wanting Internet access is the reason most often stated (31%). Cost (15%) and problems with home computer (16%) were also stated as significant barriers to Internet access in the home.

Usage of Information Technology

The amount of time spent on the computer varies by where people have access.

Three out of four respondents (74%) use their computer at least seven hours per week[4], or the equivalent of one hour per day. Overall, those who use a computer spend an average of 28 hours a week on the computer.

Those with access to a computer at home average three times as many hours on the computer as those that do not – 28 hours compared with 9 hours, respectively. One out of four (25%) of those with computers at home are considered Hard Core Users (defined as those who use the computer more than 56 hours a week) compared with only 13 percent of those without home access. On the other hand, 19 percent of those without a computer at home are Nonusers and 27 percent are Marginal Users (use the computer less than 7 hours per week).

Location of Computer Use*	Average Hours per Week
Work	35
Home	7
School	3
Other Locations (library, community center, Internet café)	<1

* Hours at home, work, and school are based only on those respondents who use computers in these respective locations – i.e., hours at home is based on those with a computer at home, hours at work is based on those who use a computer at work, and hours at school is based on those who use a computer at school.

Use of a computer at work has the most significant impact on the number of hours spent computing. On average, those who use a computer at work spend a total of 45 hours per week on the computer compared with only 7 hours for those who do not use a computer at work. One out of three (34%) respondents who use a computer at work are Above-Average Users (use the computer between 29 and 56 hours per week); an additional 35 percent are Hard Core Users.

Use of the Internet influences the amount of time spent on a computer.

On average, computer users spend about one quarter (28%) of their time on the computer using the Internet. Those with access to the Internet spend four times as many hours per week on the computer as those without – 28 hours compared with 7 hours, respectively. Residents who have computers at home spend 60 percent of their time on the computer using the Internet, while those using the computer at work only spend 10% of their computer time on the Internet.

Residents use the computer for a range of different tasks.

Respondents were asked to rate a series of tasks one performs on a computer as to their importance on a five point scale. In addition, they indicated which of the tasks they do not perform on the computer.

Respondents are most likely to use the computer for personal communications (97%), researching hobbies or personal interests (96%), gathering information about products or services (95%), finding news about travel or travel arrangements (94%), and learning about current events (93%), and doing work-related tasks (92%). Residents are least likely to use the computer for participating in chat rooms (71%), starting or maintaining a business (75%), or contacting elected officials (79%).

In most cases, those tasks that were performed by most respondents were also rated very high on the 5 point importance scale.

[4] All averages reported this section are measured by the median due to the wide variance in time spent on a computer.

Task	Mean Rating
E-mail or instant messaging	4.13
Do work-related tasks	3.97
Research or gather information about hobbies or other personal interests	3.55
Educational purposes or homework for school	3.38
Find news about travel or make travel arrangements	3.31
Gather information about products or services you might wish to purchase	3.28
Learn about current events	3.17
Manage finances	2.70
Get health or medical information	2.63
Search for jobs	2.59
Purchase products or services	2.57
Create graphics or view and edit photos	2.55
Start or maintain your own business	2.50
Entertainment or sports	2.36
Participate in community or political activities	2.06
Contact elected officials	2.05
Play games	2.03
Participate in chat rooms	1.37

There are differences in the importance of the computer for various tasks between demographic groups.

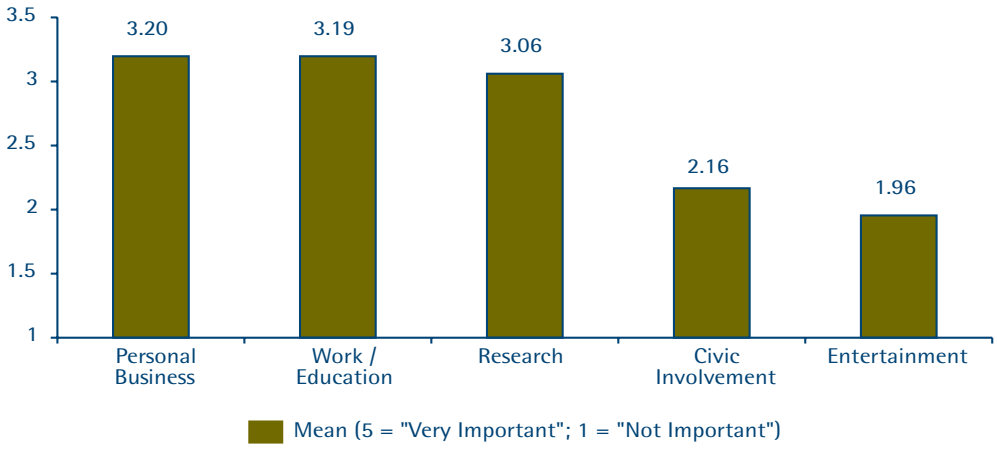
Those between the ages of 26 and 35, those with higher household incomes and/or higher levels of education are more likely place higher importance on using the computer for personal business than other groups.

Those respondents between the ages of 18 and 50, those with college educations, those with children in the household and African-Americans are more likely than other demographic groups to say that the computer is important for work or education-related tasks.

Women, younger respondents, and African-Americans are the most likely demographic groups to rate the computer as very important for research.

While relatively unimportant, use of the computer for civic participation is more important to woman than it is to men. Similarly, use of the computer for fun or entertainment is relatively unimportant overall, but more important to men, those between the ages of 18 and 24, those with high school educations or less, and African-Americans.

IMPORTANCE OF MAJOR COMPUTING TASKS
(BASE: COMPUTER USERS)



The tasks were combined into five major categories of usage and given an average rating based on their importance to users.

Technology Literacy and Fluency

COMFORT WITH USING THE COMPUTER BY DEMOGRAPHICS
(BASE: COMPUTER USERS)

	Mean Comfort Using a Computer	% Very Comfortable
Overall	**4.10**	**50%**
Male	4.16	54
Female	4.05	45
Age 18 to 25	4.37	53
Age 26 to 35	4.33	59
Age 36 to 50	4.12	51
Age 51 to 64	3.89	44
Age 65 and Older	3.47	24
Education		
High School or Less	3.69	37
Some College	4.07	46
College Graduate	4.23	55
Post Graduate Work/Degree	4.20	53
Ethnicity		
White	4.11	51
African-American	4.25	56
Asian-American	4.21	49
Hispanic	3.71	25
Other	4.14	47
Have Home Computer	4.23	53
Have No Home Computer	3.47	32
Use Work Computer	4.38	61
Use No Work Computer	3.67	32
Hours Spent Using Computer		
Nonuser	2.88	14
Marginal User	3.49	21
Average User	4.15	45
Above-Average User	4.57	67
Hard Core User	4.59	73

Seattle residents who have used a computer in the past were asked to rate their comfort level using a computer on a five point scale where 1 is "not at all comfortable" and 5 is "very comfortable." Overall, residents averaged a score of 4.10. Half (50%) of those with computer experience indicate that they are very comfortable using a computer; an additional 25 percent said they are comfortable.

SEATTLE RESIDENTS WHO HAVE USED A COMPUTER INDICATE A HIGH LEVEL OF COMFORT WITH COMPUTERS.

Distinguishing factors, such as age, education, and the amount of time spent on the computer, influence comfort level.

Comfort with computers tends to correspond with certain distinguishing factors. Younger computer users and those with higher education levels are significantly more likely to indicate a high level of comfort than those in older age groups or those with less education.

Comfort level also corresponds with the amount of time spent on the computer and the location of computer access. Those with access to a computer at work are the most likely to indicate a high level of comfort with computers, followed by those with access at home. Those that only have access at some other location besides school or work are the least likely to indicate a high level of comfort.

Computer Tasks	Mean Score
BASIC TASKS – OVERALL SCORE	**4.59**
Navigating using a mouse	4.58
Saving a file	4.47
Opening a saved file	4.47
Typing, editing and printing a document	4.38
ADVANCED TASKS – OVERALL SCORE	**3.59**
Installing new software	3.67
Creating a simple budget using a spreadsheet program	3.63
Adding or changing a peripheral	3.56
Creating a flyer	3.41
Setting up a new computer	3.29
Scanning and editing images	3.24

Residents are very comfortable with basic computer tasks and significantly less comfortable with more advanced tasks.

Respondents were asked to rate their level of comfort with a list of computer tasks on a 1 to 5 scale. On the basic computer tasks, residents scored a mean of 4.59, with 79% of respondents indicating that they are very comfortable completing these tasks. However, on the slightly more advanced tasks, residents scored a mean of 3.59, with only 22% indicating that they were very comfortable completing these tasks.

Using the same 5-point scale, respondents were asked to rate their overall comfort using the Internet. The mean response was a 3.98, compared to a mean of 4.10 with computers.

WHILE RESPONDENTS ARE GENERALLY COMFORTABLE USING THE INTERNET, THEY ARE SLIGHTLY LESS COMFORTABLE THAN WITH THE COMPUTER.

There is a strong correlation between comfort on computers and comfort on the Internet. More than four out of five (83%) respondents who said that they are very comfortable with the computer also indicated that they are very comfortable with the Internet. Conversely, the same amount (84%) that said they were not comfortable using a computer also said they were not comfortable using the Internet.

As with computers, comfort level with the Internet increases with the amount of time spent on the computer and education level, and decreases with age. Women are less comfortable using the Internet than men, with only forty-two percent (42%) of women saying that they are very comfortable using the Internet compared to fifty-three percent (53%) of men. Also, there are differences between comfort level and ethnicity, with Asian-Americans showing the highest comfort with the Internet (a mean score of 4.12) and African-Americans showing the least highest comfort (a mean score of 3.64).

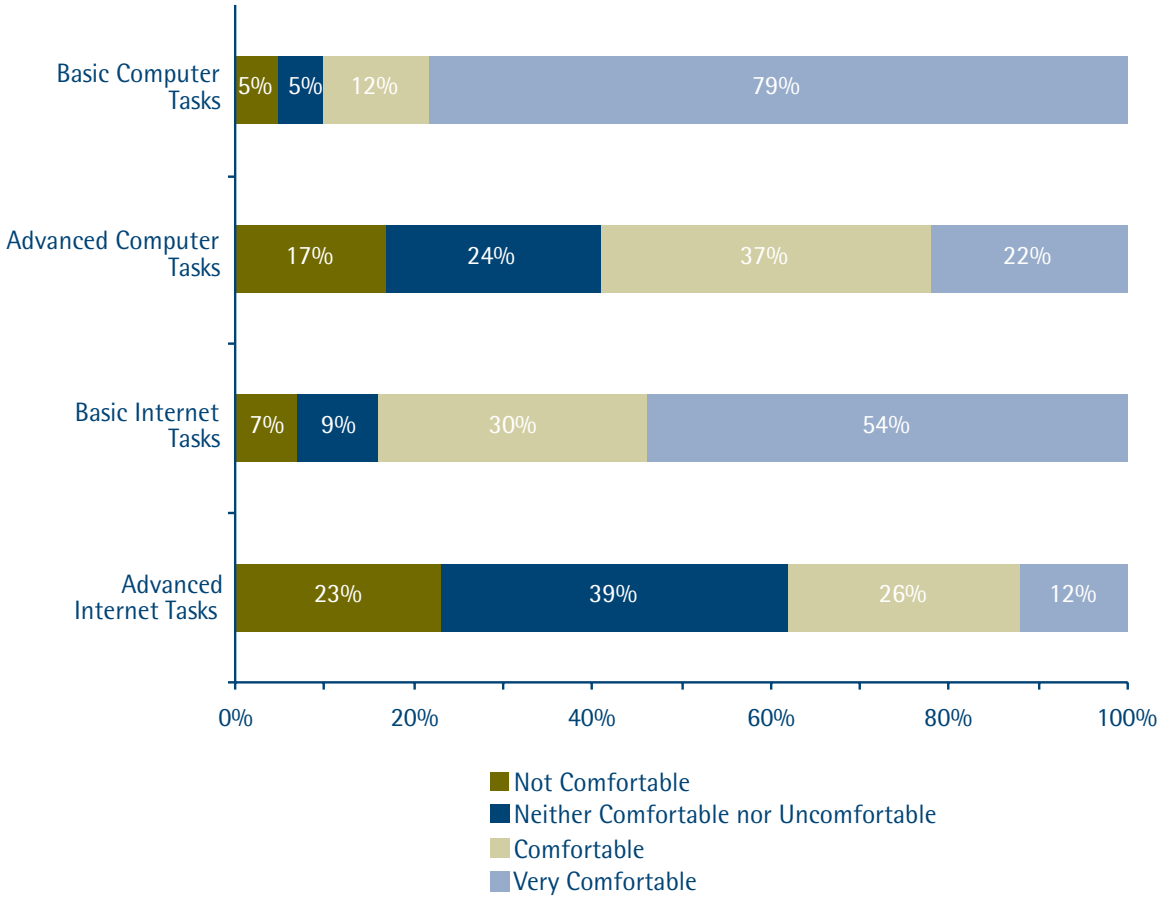
	Mean Comfort Using the Internet	% Very Comfortable
Overall	**3.98**	**48%**
Male	4.10	53
Female	3.84	42
Age 18 to 25	4.27	54
Age 26 to 35	4.41	64
Age 36 to 50	3.95	46
Age 51 to 64	3.75	42
Age 65 and Older	2.93	16
Education		
High School or Less	3.43	36
Some College	3.89	43
College Graduate	4.13	54
Post Graduate Work / Degree	4.14	51
Ethnicity		
White	3.99	49
African-American	3.64	42
Asian-American	4.12	51
Hispanic	3.65	25
Other	3.99	40
Have Computer at Home	4.13	52
Have No Computer at Home	3.19	27
Have Internet at Home	4.20	53
Have No Internet at Home	3.15	28
Use Internet at Work	4.49	64
Use No Internet at Work	3.46	35
Hours Spent Using Computer		
Nonuser	2.83	16
Marginal User	3.38	24
Average User	4.03	42
Above-Average User	4.42	64
Hard Core User	4.56	73
Proportion of Time on Computer on Internet		
Nonuser	2.72	17
Marginal User	4.05	47
Average User	4.30	56
Above-Average User	4.35	56
Hard Core User	4.20	53

Residents are relatively comfortable with basic Internet tasks.

Respondents were asked to rate their level of comfort with a number of Internet tasks on a 1 to 5 scale. On the basic Internet tasks, residents scored a mean of 4.28, with 54% of respondents indicating that they are very comfortable completing these tasks. On the more advanced tasks, residents scored a mean of 3.19, with only 12% indicating that they were very comfortable completing these tasks.

Internet Tasks	Mean Score
BASIC TASKS – OVERALL MEAN	**4.28**
Replying to an e-mail message	4.57
Creating and sending an e-mail message	4.54
Sending and opening e-mail attachments	4.17
Finding and retrieving information on the web	4.09
Downloading files from the Internet	3.90
ADVANCED TASKS – OVERALL MEAN	**3.19**
Signing up or removing oneself from a distribution list	3.84
Setting up a new Internet connection	3.36
Creating a website	2.49

COMPUTER AND INTERNET LITERACY
(BASE: COMPUTER/INTERNET USERS)



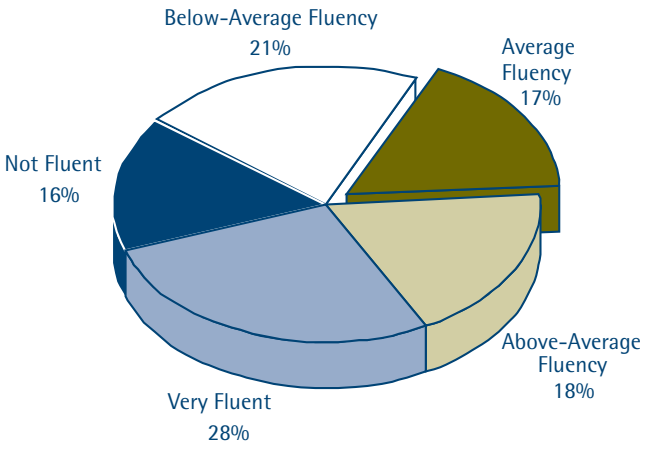
In 1999, the Computer Science and Telecommunications Board of the National Research Council commissioned a study to define the technology skills that citizens need to participate in the Information Age. This study found that in order to use technology effectively today and in the future, citizens must move beyond basic computer literacy and be able to acquire new skills independently after formal education is complete. "Fluency" refers to this ability to continually apply knowledge about technology to adapt to change and acquire more knowledge to effectively apply information technology to work and personal needs.[5] Fluency with information technology is a proxy for residents' ability to effectively participate in the information age.

As a tool for measuring fluency, respondents were asked to indicate the number of times in the past year that they had (1) personally learned a new program or computer application, (2) helped someone else get started using computers or the Internet, and (3) helped someone else learn a new program or computer application. On average, respondents who have computer experience have learned or helped others an average of five times in the past year. More than three out of five (63%) of Seattle residents can be considered "fluent" with information technology – that is, they have personally learned a new computer application or program or have assisted others on the computer four or more times in the past year. Only sixteen percent of computer users had not personally learned a new program or application or assisted others in the past year.

MORE THAN THREE OUT OF FIVE SEATTLE RESIDENTS CAN BE CONSIDERED "FLUENT"

Overall, Seattle residents show a high level of "fluency" with information technology.

FLUENCY SEGMENTS
(BASE: COMPUTER USERS)



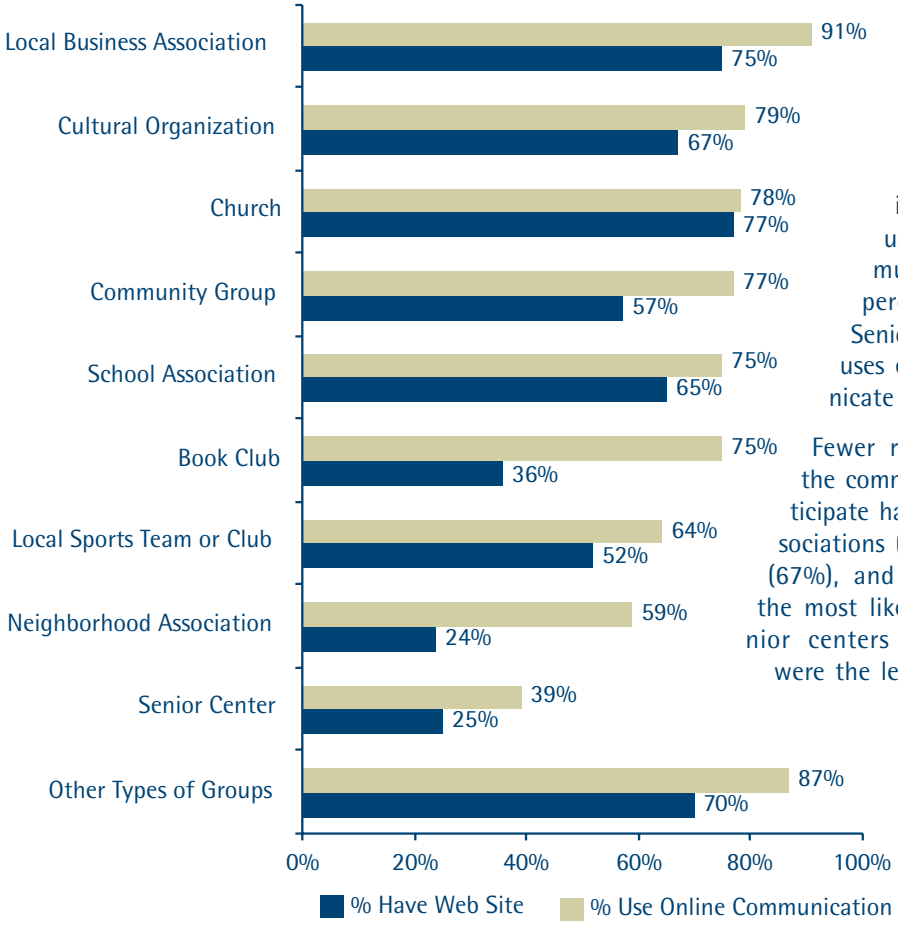
Community Building

Many Seattle residents are active in community groups, and many of those groups incorporate electronic participation into their work.

More than three out of five (62%) of residents participate in at least one neighborhood or community organization.

Those who participate in community groups were asked if that group has a web page or uses e-mail to communicate with members. Almost half (48%) of those surveyed indicated that at least one of the groups they participate in uses e-mail or the Internet to communicate with members. Ninety-one percent of those who participate local business associations, 79 percent of those who participate in cultural organizations, and 78 percent of those who participate in churches state that their group uses e-mail or the Internet to communicate with members. Only 39 percent of those who participate in Senior Centers indicate that the group uses e-mail or the Internet to communicate with members.

EXTENT TO WHICH MEMBERS REPORT THE LOCAL COMMUNITY GROUPS THEY PARTICIPATE IN USE ON-LINE COMMUNICATIONS



Fewer respondents (39%) indicated that the community group(s) in which they participate have a web page. Local business associations (75%), local cultural organizations (67%), and school associations (65%) were the most likely to have web pages, while senior centers and neighborhood associations were the least likely.

Residents are using the Internet to find information on local businesses.

Three out of five (61%) respondents have sought information regarding local businesses online in the past year. Only one-third (38%) of respondents who have sought information on local businesses are satisfied with the information that they found. Almost half (45%) are neither satisfied nor dissatisfied with the information they found. Just under one in five residents (17%) are dissatisfied with the information available on local businesses on the Internet.

Women are more likely than men to be satisfied with the information available from local businesses on the Internet – mean scores of 3.44 compared with 3.23, respectively. Those with low / extremely low household incomes are the most satisfied with the information on local businesses available on the Internet, and those with the highest income levels are the least satisfied – mean scores of 3.73 compared with 3.28 respectively.

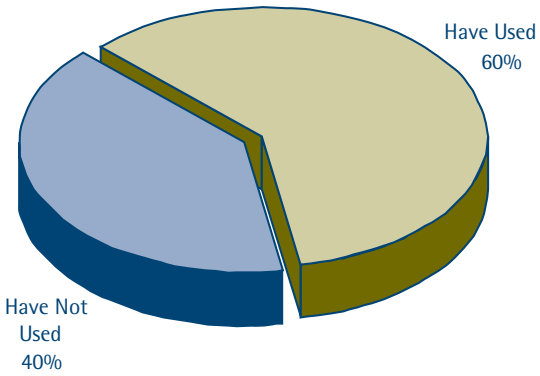
Civic Participation

Seattle residents are going online to get government information, but have mixed feelings about the Internet as a tool for civic participation.

Seattle residents are using the Internet to obtain information on government agencies. Three out of five (60%) of computer users indicate that they have used the Internet in the past year to find information from a city, county, state or federal government site.

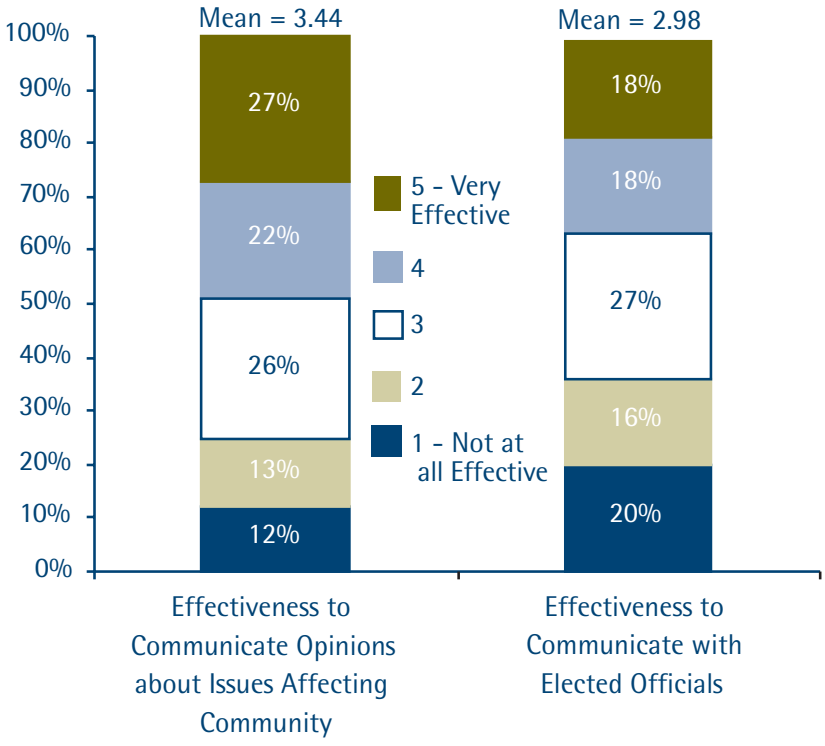
The highest percentages of those who have sought information from a government agency on the web are between 36 and 50 years old, have a college education, and have upper/high upper household incomes. Whereas two-thirds (66%) of Caucasians surveyed have sought information from a government agency on the Internet, only 38 percent of African-Americans, 38 percent of Asian-Americans, and 30 percent of Hispanics respond similarly.

USE OF THE INTERNET TO OBTAIN INFORMATION ON GOVERNMENT AGENCIES
(BASE: COMPUTER AND/OR INTERNET USERS)



Residents do feel that overall, the Internet and e-mail are effective ways to communicate about issues that affect them and their community (a mean score of 3.44 on a 1 to 5 scale). However, residents do not see e-mail and the Internet as very effective ways to communicate with elected officials - a mean score of 2.98 with 20 percent of respondents indicating that they think it is not at all effective.

EFFECTIVENESS OF E-MAIL AND INTERNET TO COMMUNICATE CIVIC ISSUES
(BASE: COMPUTER AND/OR INTERNET USERS)

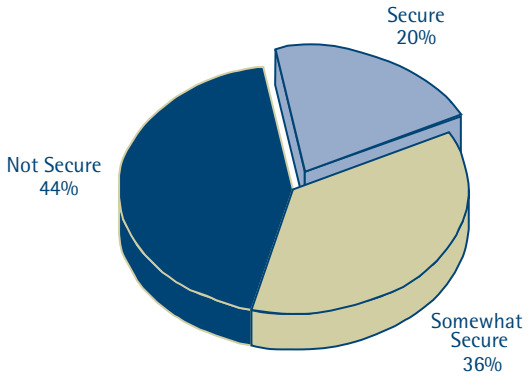


Human Relationships to Information Technology

Seattle residents have very mixed feelings about privacy, security and safety concerns.

Residents, both computer users and non-users, are evenly split in their opinion on whether or not companies and organizations on the Internet use personal information appropriately - 38 percent responded yes, while 36 percent responded no.

OVERALL SECURITY WHEN USING INTERNET
(BASE: ALL RESPONDENTS)



Nearly half (46%) of those surveyed do not feel that there are adequate precautions for children to access the web safely, with an additional twenty-six percent (26%) responding that they do not know. Those with children in the home are more likely than those without to feel there are adequate safeguards for children – 41 percent compared with 29 percent respectively.

Just over half (52%) of residents feel that financial transactions on the Internet are secure. However, more feel that these transactions are only "somewhat secure" as opposed to "very secure" – 40 percent versus 12 percent, respectively.

An overall measure of security was created by counting the number of times that respondents said they felt "secure" with these three measures.

Men were more likely than women to be part of the 20% of respondents who feel secure with the Internet, meaning they responded yes or "very secure" to two out of the three questions.

Older residents feel less secure with the web than do younger residents. Nearly half (48%) of those who feel secure about using the web are between the ages of 18 and 35 compared with only 36 percent of those who feel somewhat secure and 27 percent of those who feel not secure. On the other hand, 23 percent of those who do not feel secure about using the web are 65 and older.

Increased access to computers and/or the Internet as well as comfort using the computer and/or Internet is related to how secure one feels on the Internet.

DIFFERENCES IN SATISFACTION WITH CONTENT ON WORLD WIDE WEB BY DEMOGRAPHIC SEGMENTS
(BASE: RESPONDENTS WHO HAVE USED COMPUTER)

	Satisfaction (Mean)
Overall Average	**4.10**
Income	
Low / Extremely Low	3.88
Moderate / Middle	3.89
Upper Middle	4.00
Upper / Higher Upper	4.28
Ethnicity	
Caucasian	4.16
African-American	4.06
Asian-American	3.85
Hispanic	3.96
Other	4.00
Children In Household	
Yes	3.99
No	4.15

Overall Seattle residents are satisfied with the content of the World Wide Web.

Only one in ten (11%) of respondents state that they are "dissatisfied" with the content of the World Wide Web for their personal needs. Eighty five percent of respondents say that they are either "somewhat satisfied" or "very satisfied" with the content of the web. There were some differences in demographic groups and overall satisfaction with web content, with those in lower income groups, Asian-Americans, and those in households with children being the least satisfied with web content.

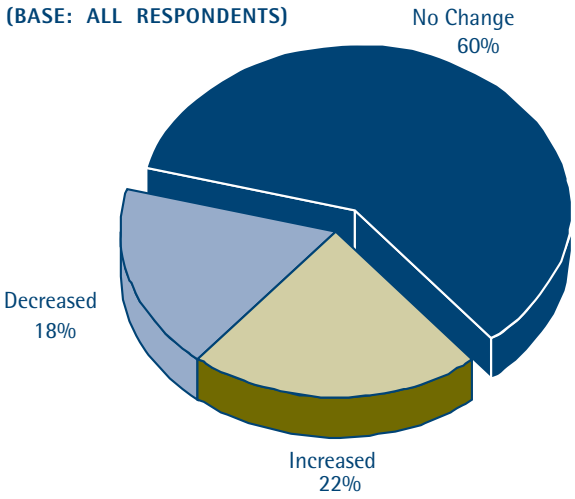
Information technology tools are improving the quality of life for Seattle residents.

The majority (60%) of residents feel that information technology tools, such as computers and the Internet, have had no impact on the amount personal time they have available. Less than one in five (18%) feel that information technology has decreased their personal time, while just over one in five (22%) feel that it has increased their personal time.

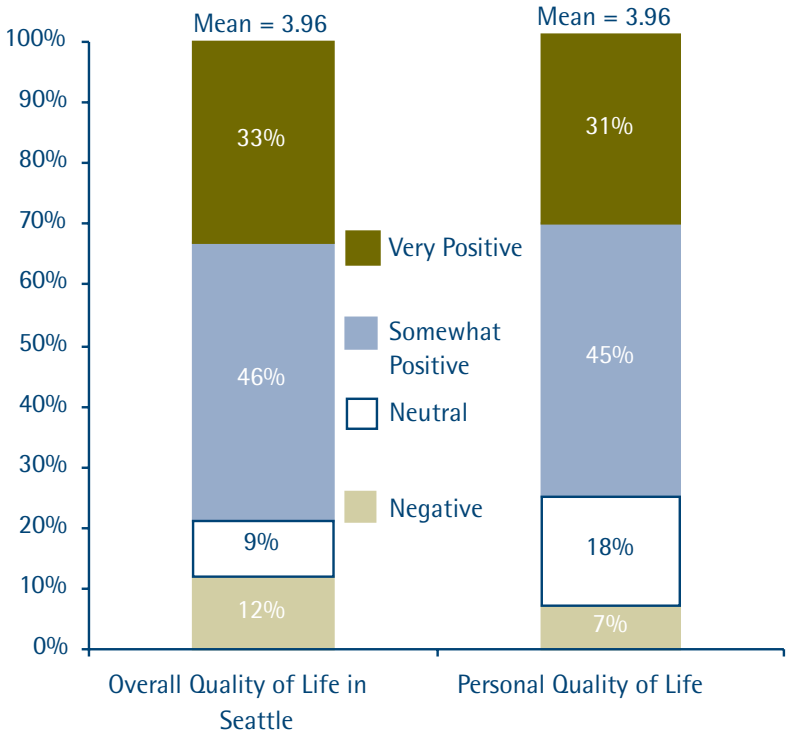
As would be expected, those without computer or Internet access are more likely than those with access to say that there has been no impact. Among those with access to computers and the Internet, the majority also say that information technology tools have had no impact on the amount of personal time they have available. Among those who feel it has had an impact, opinions are equally divided as to whether it has increased or decreased the amount of personal time they have available.

Overall, residents feel that information technology has had a positive impact on the overall quality of life in Seattle (79%) and on their personal quality of life (76%).

IMPACT OF INFORMATION TECHNOLOGY ON PERSONAL TIME
(BASE: ALL RESPONDENTS)



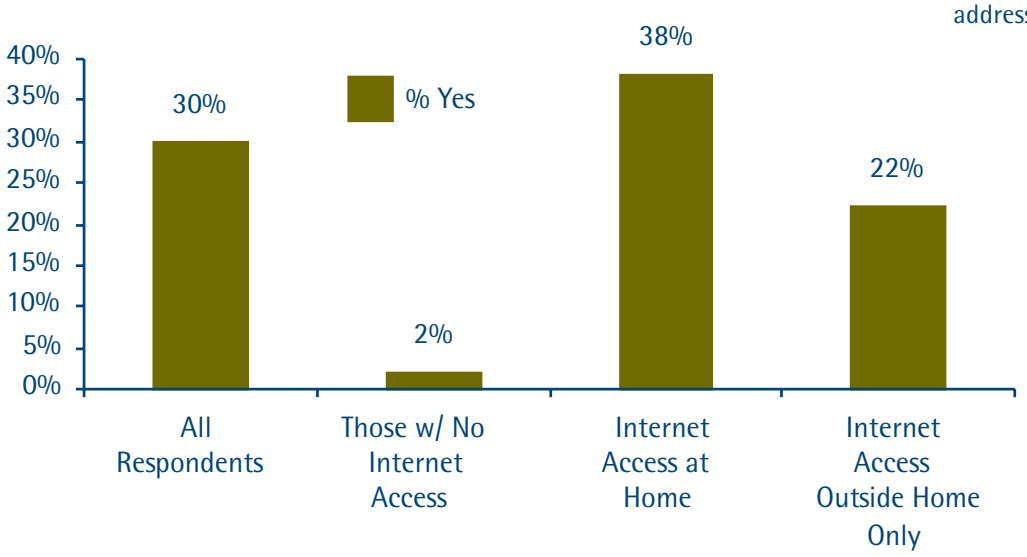
IMPACT OF INFORMATION TECHNOLOGY ON QUALITY OF LIFE
(BASE: ALL RESPONDENTS)



City Services Online And On Cable TV

More than one-third (36%) of those with Internet access have visited the City of Seattle's website, cityofseattle.net. When responses are expanded to include those respondents without Internet access, 29 percent of all residents have accessed the City of Seattle's website over the Internet. This is an increase from the 1999 Citywide Residential survey when only 18 percent of residents had accessed cityofseattle.net.

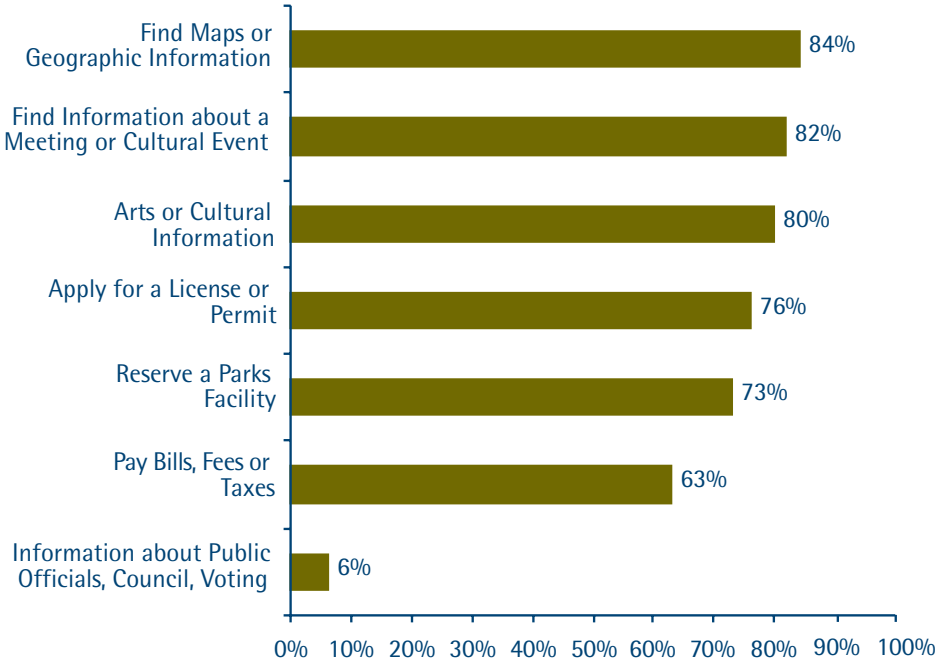
VISITED CITYOFSEATTLE.NET
(BASE: ALL RESPONDENTS)



The majority of residents visit cityofseattle.net to find specific city or city service information (83%), just to browse (68%), or to find a name, address or contact (51%).

Residents also show a high interest in adding a number of online government services to the city's website.

INTEREST IN NEW CONTENT AND FEATURES ON CITYOFSEATTLE.NET
(BASE: RESPONDENTS WHO VISITED CITYOFSEATTLE.NET)



Many residents with cable service have watched TV-Sea.

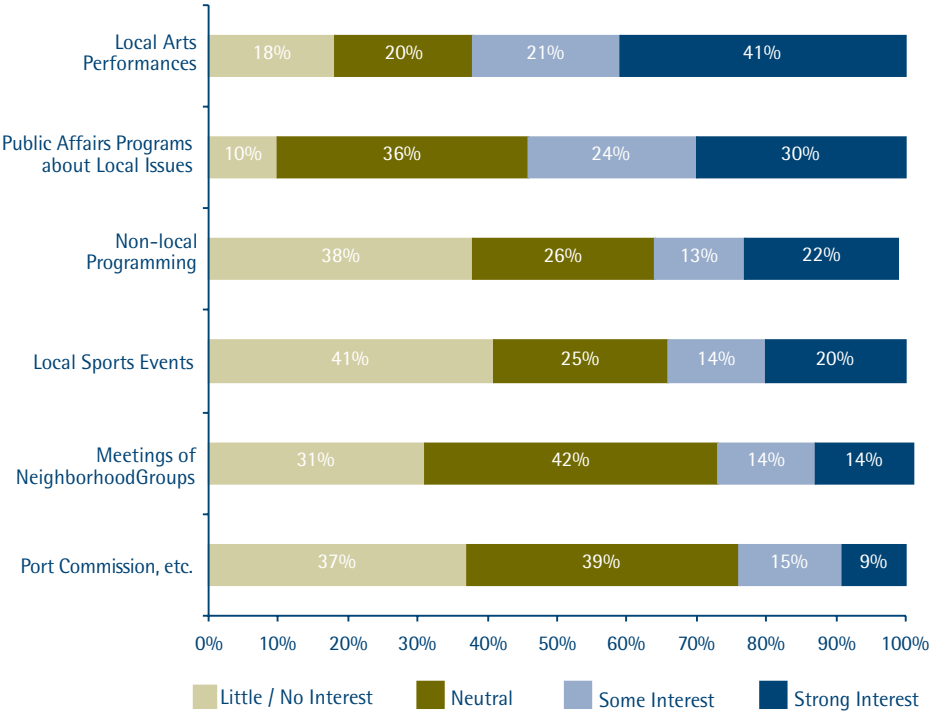
More than half (57%) of those with cable television have seen or watched TV-Sea. This would mean that one out of three (33%) adults in the city have seen or watched TV-Sea, the municipal government channel. Those most likely to watch TV-Sea are men, between the ages of 51 and 64, well educated (post-graduate degrees), affluent (upper middle / upper / high upper), and African American.

The majority (51%) of respondents report that their viewing of TV-Sea varies or they see it when they are "channel surfing." Almost half (44%) of those who have watched TV-Sea report that they have watched City Council meetings.

Viewers are interested in additional programming with the majority asking to see local arts performances (62%) and public affairs programming about local issues (54%).

41% HAVE A STRONG INTEREST IN VIEWING LOCAL ARTS PERFORMANCES ON TV-SEA

TV-SEA VIEWING - INTEREST IN FUTURE PROGRAMMING
(BASE: RESPONDENTS WHO WATCH TV-SEA)



City of Seattle
Department of Information Technology

This report is a project of the City of Seattle Department of Information Technology and the Citizens Telecommunications and Technology Advisory Board (CTTAB). The research presented here was completed as a portion of the Information Technology Indicators Project.

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