

**PART 4**

Computer and Internet literacy and comfort.....	51
Overall comfort.....	51
Comfort with specific tasks .....	54

## Computer and Internet literacy

Computer users were asked to rate their overall comfort using a computer or the Internet on a five point scale, where 1 means “not at all comfortable” and 5 means “very comfortable.”

**57. Overall comfort level with computers or the Internet increases with income**

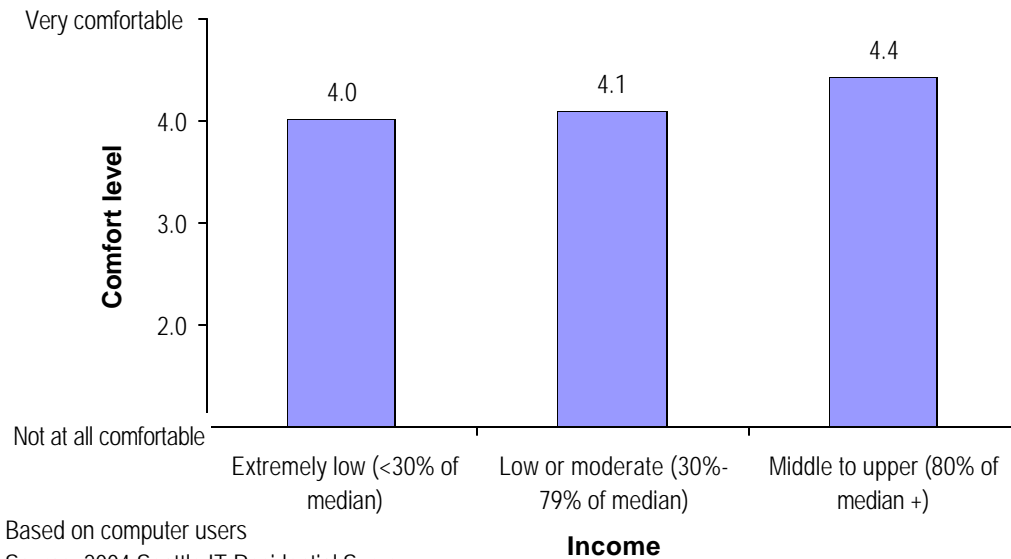


Figure 57 shows an overall high level of comfort using this technology, and that comfort increases with income. Fifty-five percent of the computer users overall said they are “very comfortable,” but within the different income levels, this figure ranges from

46% of those in the lowest income group to 61% of those in the highest income group.

**58. The impact of income on overall comfort separately for men and women**

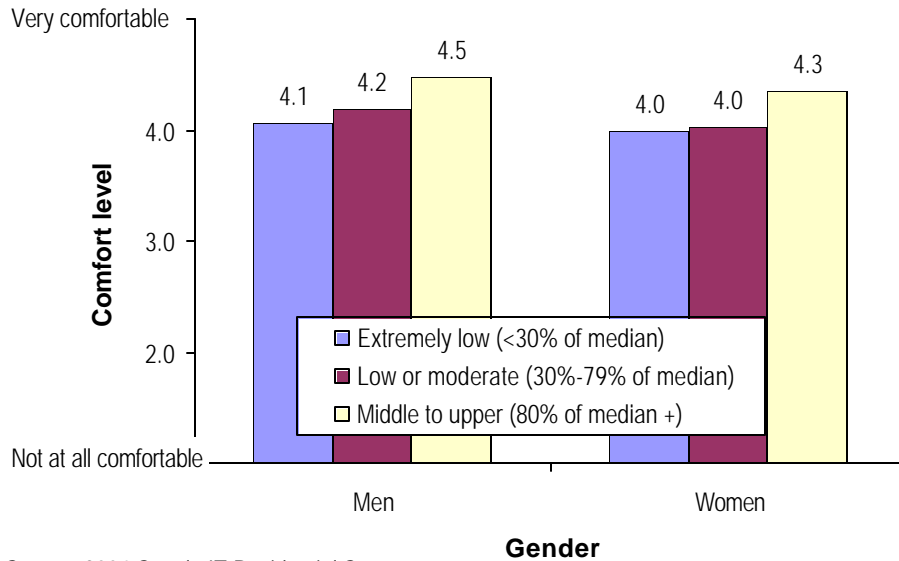


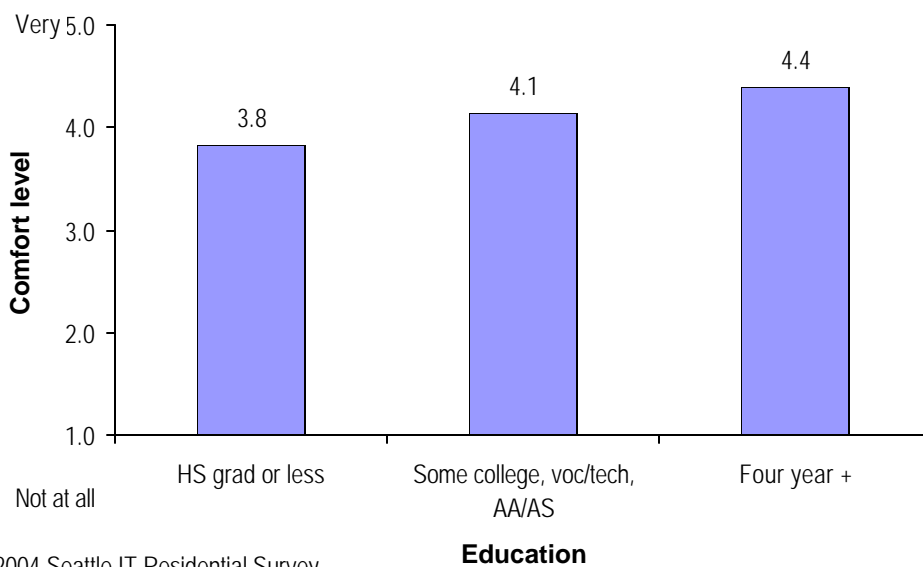
Figure 58 shows that the impact of income is fairly similar for men and women, despite the different pattern that emerges when 2000 responses are included.

Source: 2004 Seattle IT Residential Survey

Internet is similar to that of income (Figure 57): as education increases, so does comfort with computers and the Internet.

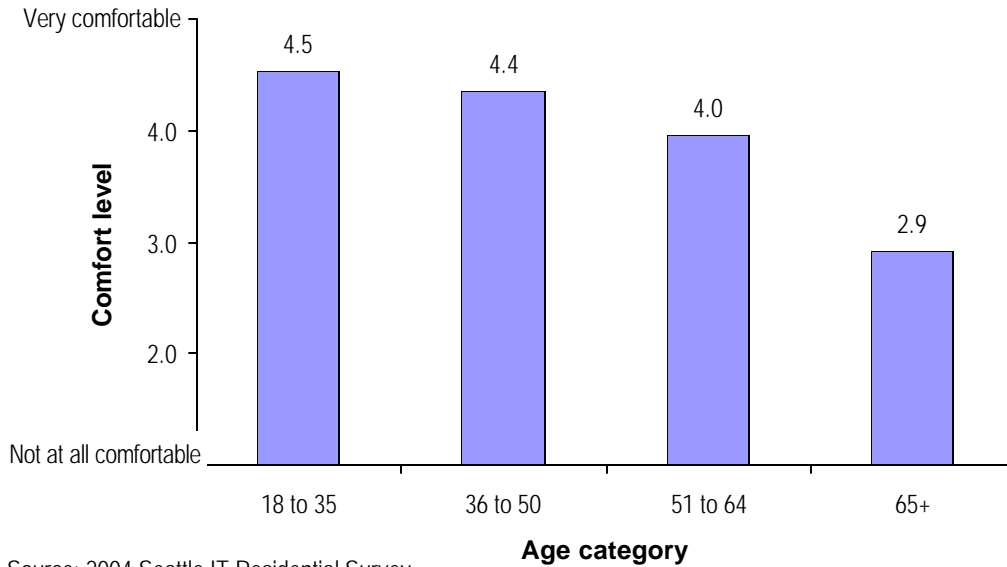
Figure 59 shows that the impact of education on overall comfort with computers and the

**59. Overall comfort level with computers or the Internet increases with education**



Source: 2004 Seattle IT Residential Survey

**60. Overall comfort level with computers or the Internet decreases with age, especially after 64**

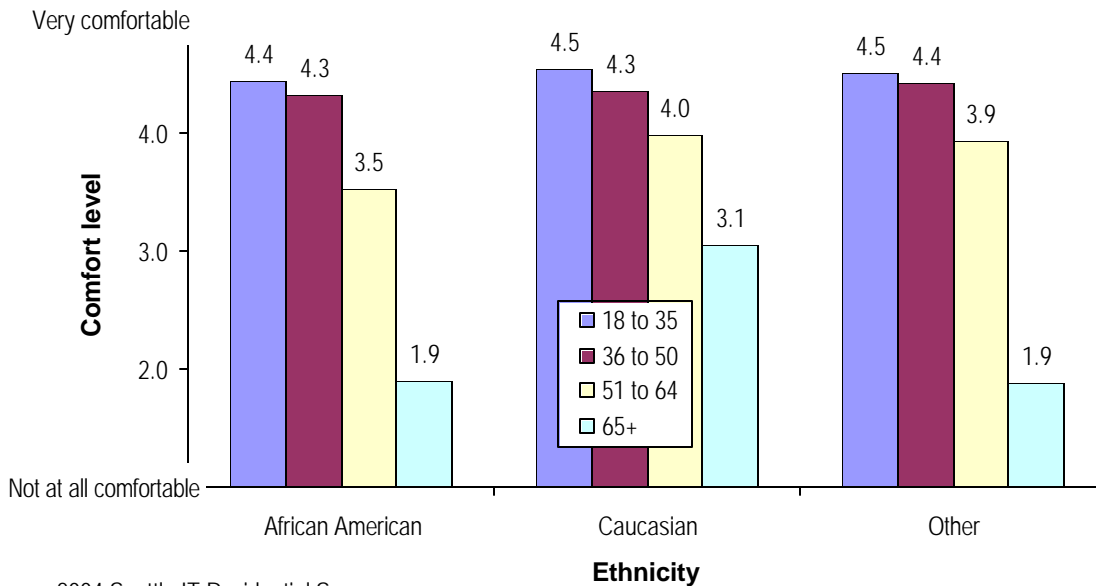


Source: 2004 Seattle IT Residential Survey

that those seniors who *are* current computer users are significantly less comfortable overall using computers or the Internet than their younger counterparts.

Figure 60 illustrates the effect of age on overall comfort with this technology. Recall that these ratings of comfort are based on current computer users. Only about half of the seniors in the sample identified themselves as current computer users. This figure shows

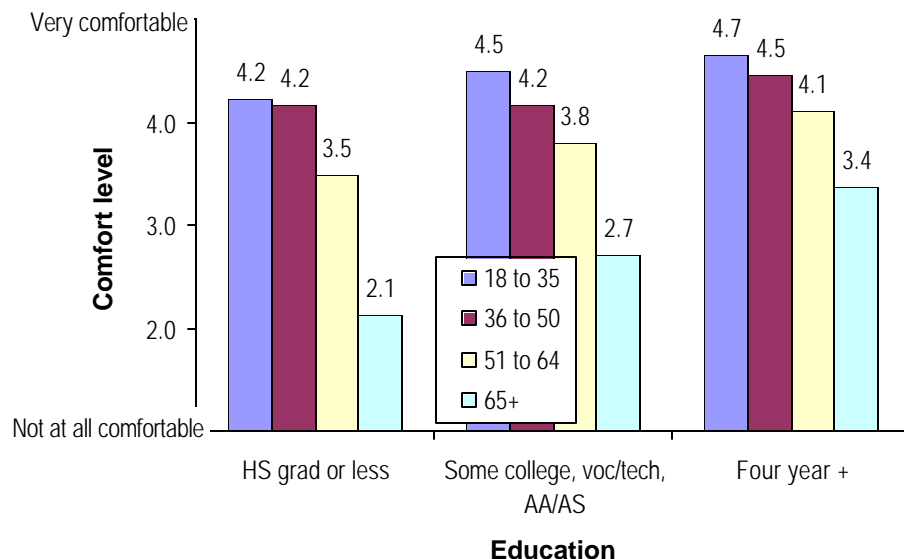
**61. The relative discomfort with computers or the Internet reported by seniors is more striking among African American respondents and other ethnic minority groups**



Source: 2004 Seattle IT Residential Survey

Figure 61 shows that the impact of age is most dramatic for non-Caucasian seniors.

### 62. The impact of age on overall comfort with computers or the Internet diminishes as education increases



Source: 2004 Seattle IT Residential Survey

Figure 62 shows that the age effect is mitigated by education.

Note that although seniors with a four year college degree or more continue to report less comfort than their younger counterparts with comparable education, the gap between these seniors and the others in this education category is significantly smaller than the gap in the other education categories.

Summarizing, earlier analyses show that older Seattleites or those with less income or education are less likely to be current computer or Internet users. Individuals in these groups are also less likely to have home computer or Internet access. This set of figures shows that those who are computer or Internet users in the same subgroups tend to be significantly less comfortable with the technology overall. Figures comparing changes from 2000 suggest that individuals in these groups are catching up in Seattle, but access and comfort are not yet equal across the subgroups.

### Comfort with specific tasks

In addition to asking computer-using respondents about their overall comfort with computers and the Internet, we also asked about their comfort with specific tasks selected to represent both basic and advanced computer and Internet applications. If respondents had not done a particular task, that information was recorded. Figure 63 provides several pieces of information. The tasks that were asked about are listed on the left. The top half of the figure represents the basic tasks, the bottom half, the advanced tasks. Within the basic tasks, the top two require experience with a computer, but not the Internet. The next three require experience with the Internet. The advanced tasks are organized in the same way.

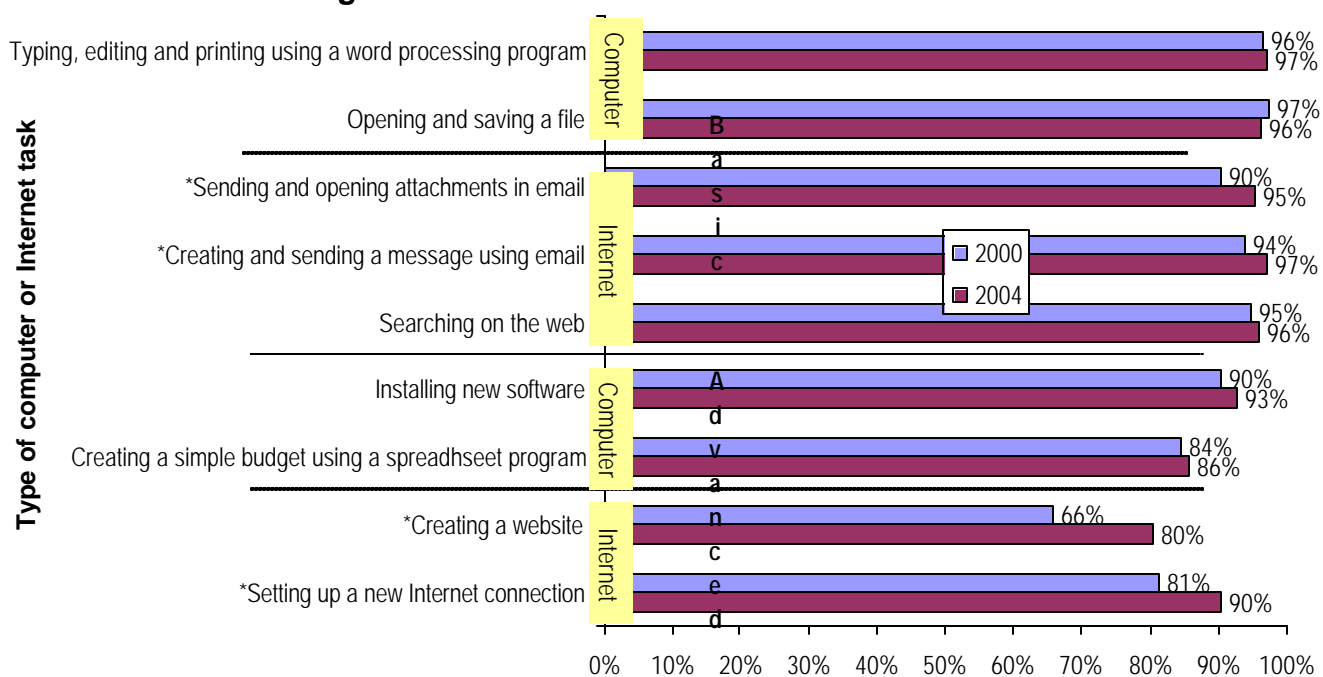
A pair of bars is associated with each task. These represent the percentage of respondents who have done this task. The top bar in each pair represents the percentage of respondents in 2000 who said they had done the task, and the bottom bar represents the 2004 respondents. This figure shows that almost all computer users in both years said they have used a word processing

program and opened and saved a file. Experience becomes less common with the advanced tasks, especially the advanced Internet tasks. So that in 2000, two-thirds of the computer-users said they had created a website, and 81% said they had set up a new Internet connection.

The other piece of information available from this figure is the change in experience since 2000. The tasks with an asterisk (\*) are those for which respondents report a significant increase or decrease in experience. For example, significant increases were seen in sending and opening attachments in email, creating and sending a message using email, creating a website and setting up a new Internet connection. That is, significantly more Seattleites are familiar with advanced computer and Internet applications in 2004 than in 2000 – in general, computer-using Seattleites are growing in their computer-use expertise.

However, as with other indicators of access, these patterns are not constant across demographic groups. Looking at the individual tasks, experience with all computer or Internet tasks is lower among seniors, especially creating a website, using a spreadsheet or setting up a new Internet connection. Experience with all computer or Internet tasks is most common among respondents with more income or more education. Men were between 5% and 8% more likely to say they’ve had experience with each of the advanced applications as well as searching on the web (3% more likely). African American respondents were less likely to report experience with creating and sending a message with email (10% less likely), sending and opening email attachments (11% less likely), installing new software (14% less likely), searching the web (12% less likely) or using a word processor (8% less likely).

### 63. Residents report using computers or the Internet for many tasks. Significant increases in Internet tasks since 2000.



\* p<.05

Source: 2004 Seattle IT Residential Survey

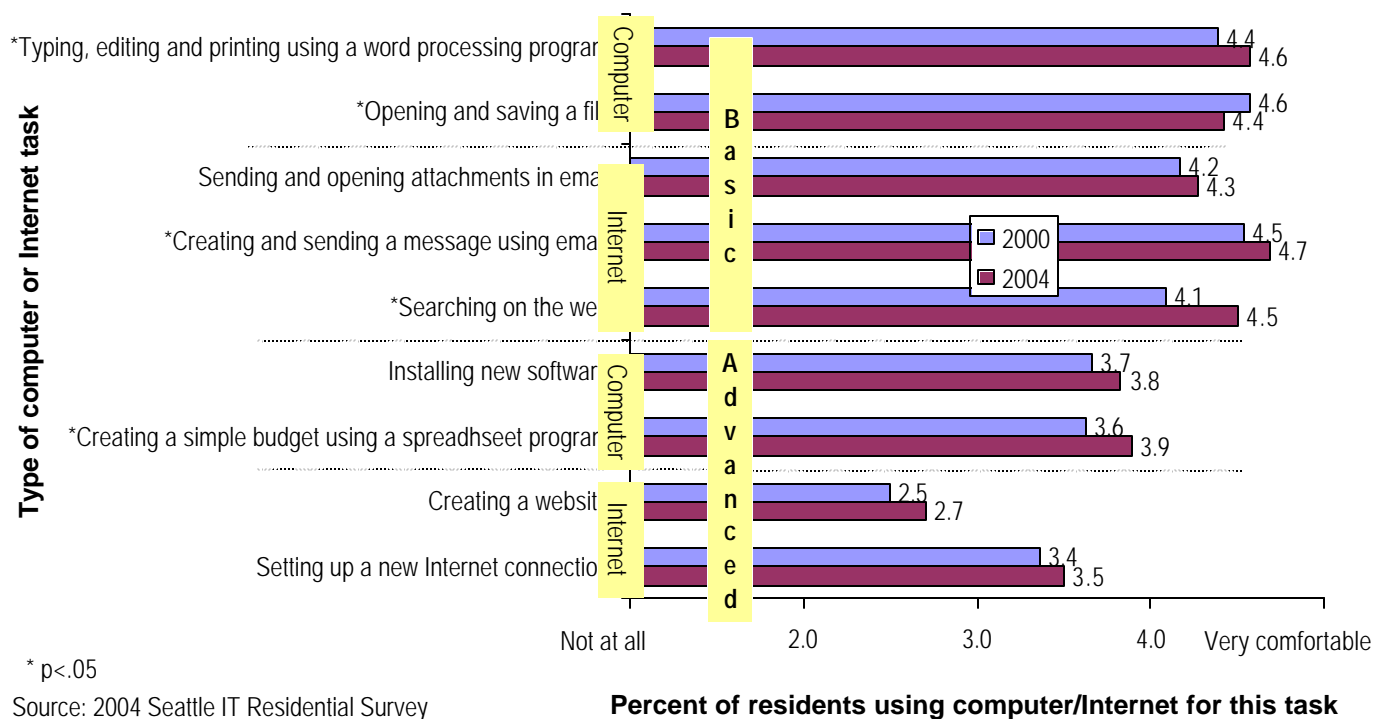
Percent of residents using computer/Internet for this task

Figure 64 shows a different type of information. Looking at the same tasks, this figure summarizes the responses from the respondents who said they have done this task. That is, the lack of familiarity of the people who have never done the task is not represented in this figure. For those who have done each task, this figure shows that compared with 2000 respondents, 2004 respondents report greater comfort with all the tasks except opening and saving a file. These changes reached statistical significance for all basic tasks (except sending and opening attachments in email), and for creating a simple budget using a spreadsheet program. Together, these figures show that an increasing percentage of the computer-using population is becoming familiar with computer and Internet application, and that self assessed skill level is increasing among the users.

These individual tasks were combined into four summary scores: basic computer tasks, basic Internet tasks, advanced computer tasks and advanced Internet tasks. The next seven figures illustrate differences in comfort with each type of task for the different demographic groups examined.

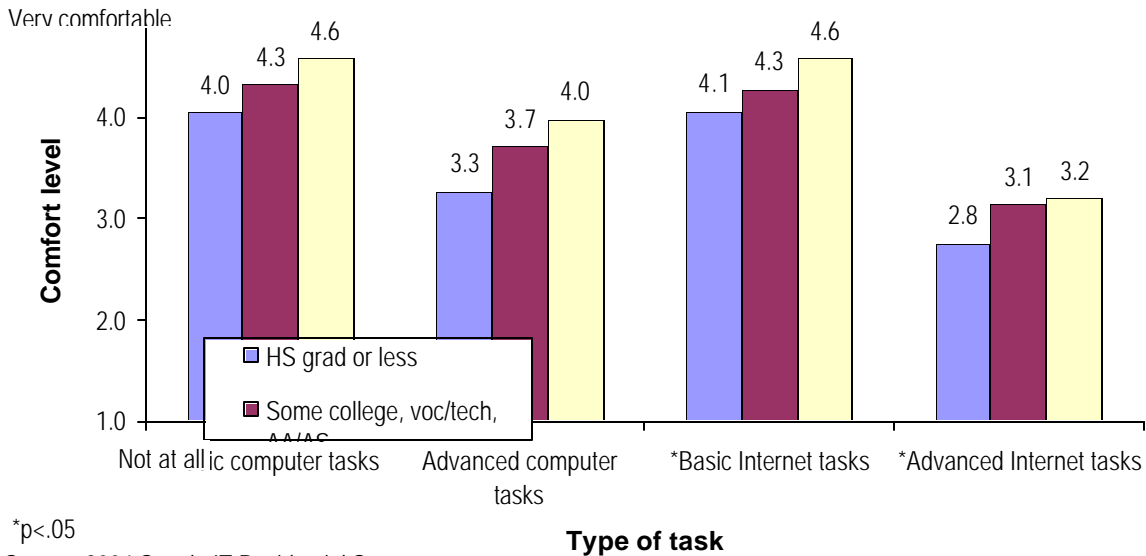
Figure 65 has four sets of bars representing comfort level for the four different types of tasks. The three bars within each set, illustrate the comfort level of a specific demographic group. Figure 65 focuses on the education level of the respondent and shows the increase in comfort for all four types of task with increasing education. Note that three of the four labels on the horizontal axis are asterisked (\*). These asterisks indicate statistical significance.

### 64. Residents report high levels of comfort doing basic computer and Internet tasks, and comfort in many areas has increased since 2000



Even though the average comfort levels increases with education for all four types of tasks, the increases reached statistical significance for basic computer and Internet tasks, and advanced Internet tasks. The increase did not reach statistical significance for advanced computer tasks.

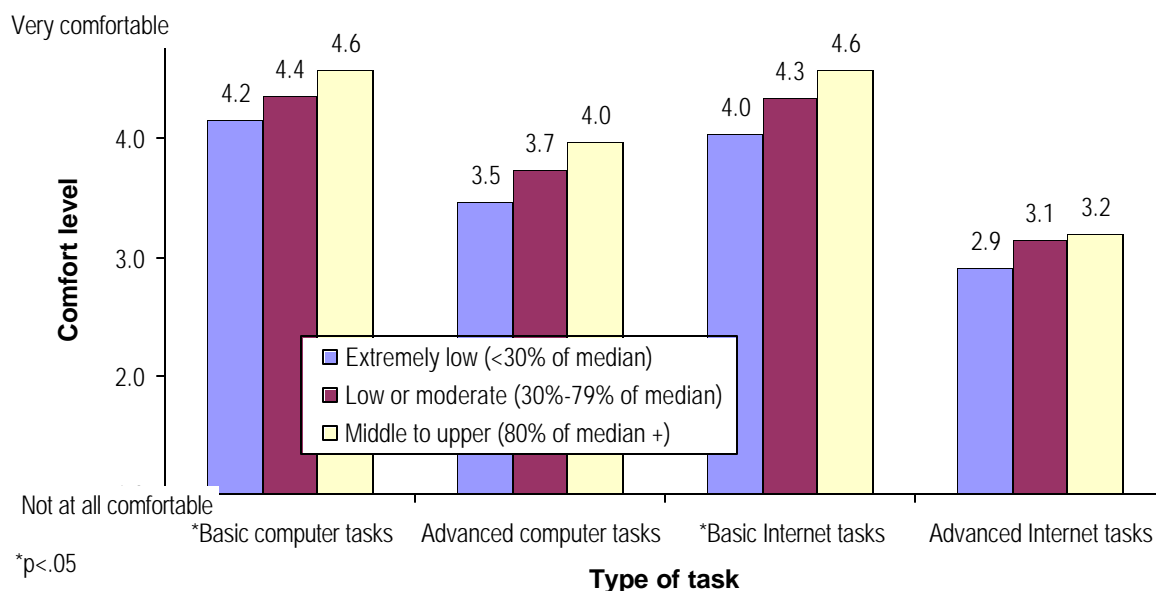
**65. Among those with experience, comfort with these\* tasks increases significantly with education**



Source: 2004 Seattle IT Residential Survey

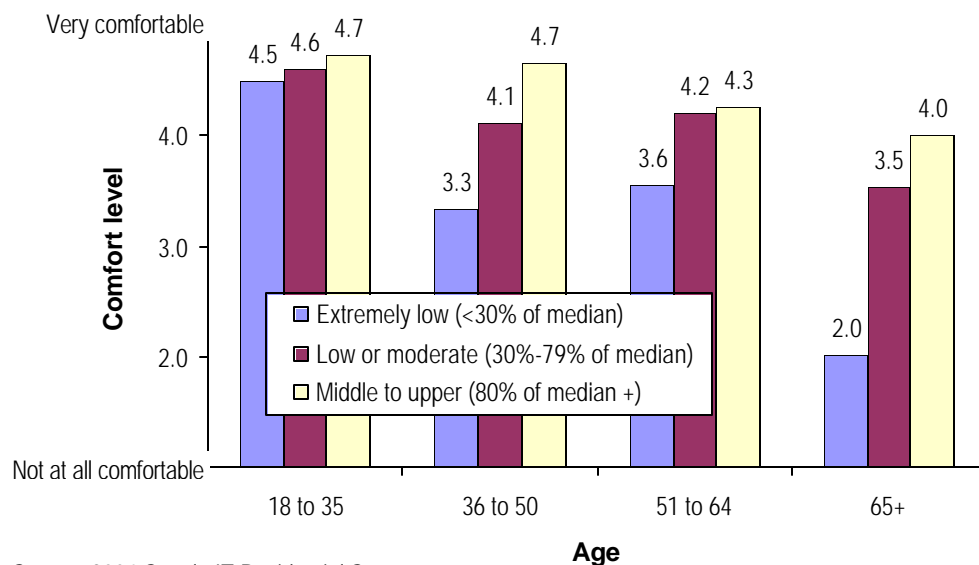
Figure 66 shows similar results for the different income groups. The average comfort ratings increased with income for all types of tasks and these differences reached statistical significance for basic computer and Internet tasks. The differences seen in the advanced tasks did not reach significance.

**66. Among those with experience, comfort with basic tasks increases significantly with income**



Source: 2004 Seattle IT Residential Survey

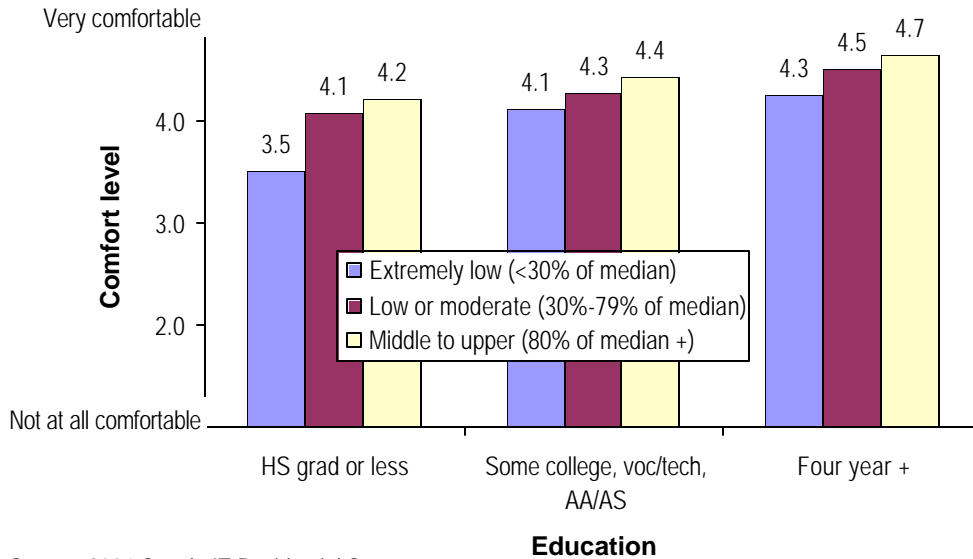
**67. Income has little effect on comfort with basic Internet tasks for those 35 and younger**



Source: 2004 Seattle IT Residential Survey

Figure 67 shows that the effect of income on comfort with the basic Internet tasks is not consistent across the age groups. Specifically, for those 35 and younger, income seems largely unrelated to income while it has a dramatic impact among those 65 and older.

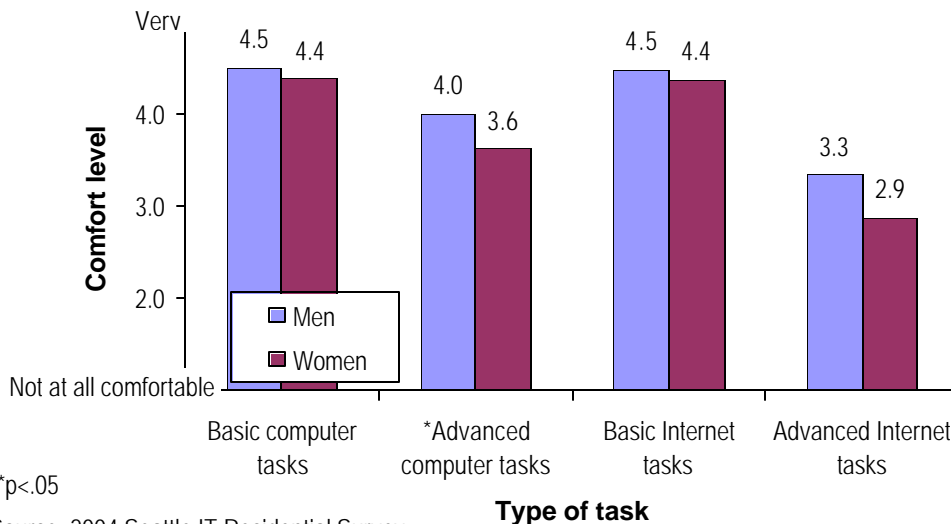
**68. Income has less effect on comfort with basic Internet tasks at higher education levels**



Source: 2004 Seattle IT Residential Survey

Figure 68 shows another group where the impact of income is mitigated. For those with more education, the effect of less income on comfort level with basic Internet tasks is reduced, while income has the greatest effect on comfort with basic Internet tasks for those with the least education.

**69. Among those with experience, men report significantly more comfort with advanced computer tasks than women**



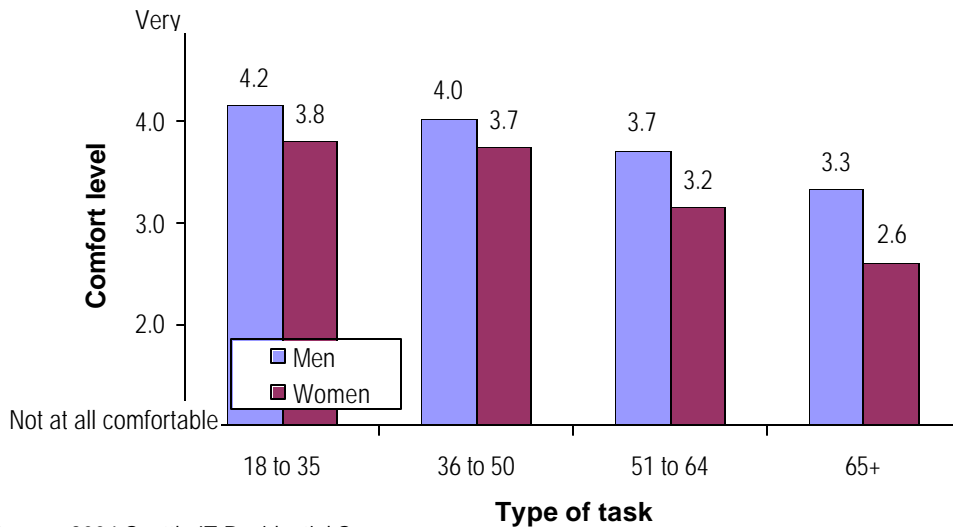
\*p<.05

Source: 2004 Seattle IT Residential Survey

Figure 69 shows that men report being more comfortable with advanced computer tasks than do women. The same pattern is observed for the other types of tasks, but they did not reach statistical significance.

**70. The gap between men and women in comfort with advanced computer tasks is greater among older respondents**

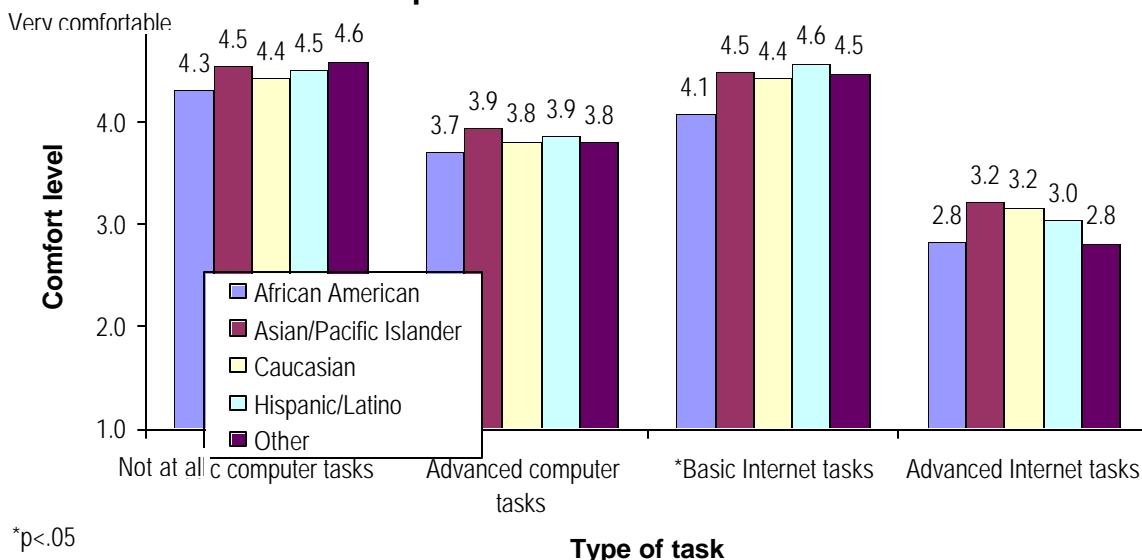
Figure 70 shows that the gender gap in comfort with advanced computer tasks is evident in each age category, but is more pronounced among respondents aged 51 and older.



Source: 2004 Seattle IT Residential Survey

Figure 71 shows the levels of comfort with the different types of task for respondents belonging to different ethnic groups. This figure shows a lower level of comfort reported by African American respondents for each of the four types of task, a difference that reached statistical significance for basic Internet tasks.

**71. Among those with experience, African American respondents report less comfort with basic Internet tasks than respondents of other ethnicities**



\*p<.05

Source: 2004 Seattle IT Residential Survey