

Estimated Internet Usage Differences By Basic General Social Survey Demographics

Table 1 shows the basic differences in estimated hours of Internet usage by type of usage and by demographic factors, which are divided into the four categories that have been found useful in analyzing other ways people use time (Robinson and Godbey 1999). The four types of predictors are birth factors (gender, race and age), status factors (education and income), role factors (work hours, marriage and parenthood) and location/ecological factors (region, community size, home ownership and housing type).

In the first row of Table 1, it can be seen that the average estimated weekly Internet usage (variable *netime* in the file) is 4.2 hours. With a 46% overall usage rate that averages 9.6 hours per week *among users*, a figure higher than other source estimates of usage, particularly those from time diaries.

In the next set of columns of figures in Table 1, it can be seen that the overall 4.2 hour average (column 1) is comprised of 2.0 hours of e-mail use (*emtime* in column 4) and 2.2 hours of other web use (*wwwtime* in column 7). Both email and other web use were reported by 37% of the GSS sample (column 5 and column 8), which means that email users estimate an average of 5.7 hours per week (column 6), while web users estimate an average of 6.4 hours per week (column 9). (The 5.7 and 6.4 hourly estimates are greater than the 10.4 hours of combined use (in column 3) because the overall figure excludes exclusive email or other web users; it is a combined figure for both and thus includes email users who use the other web sites for zero hours per week, along with web users who likewise use email for zero hours per week).

Before turning to the major observed differences by these basic background factors, several notes of caution are in order. First, these are results were obtained from respondent estimate questions, which tend to be higher than other data sources. Second, there were several problems encountered by GSS interviewers in obtaining these estimates in terms of respondent and interviewer interpretation of these questions; for example, several respondents who were excluded from answering these questions when they should have been asked; others may not have properly separated hours from minutes. Third, there may be rounding or other errors encountered in entering the data into Table 1, which occur because the base number sometimes shifts.

Nonetheless, because these are the central usage questions asked in the year 2000 Internet module that can be used to separate heavier from lighter Internet users, we are providing them here to allow analysts a general overview of the basic differences in response—as well as a way of learning the basic SDA commands to analyze these data. In general, it will be seen that the results fit well with other data sources in terms of patterns correlations even if, in our judgment, they show greater Internet usage than other surveys, or what one would find if one had direct observation data on how people use the web.

Birth Factor Differences:

Gender: Overall, it can be seen that men not only report heavier web usage (5.0 hours vs. 3.6 hours for women), but more of them use the web (50% vs. 42%) and for more hours per week of usage (10.5 vs. 8.8). The differences are larger for other web use (2.9 vs. 1.8 hours) than for email use, however; in other words, women use email almost as much as men (1.9 vs. 2.1 hours, with almost as high a usage rate as well (35% vs. 40%), so that email usage per user for men and women is virtually the same—5.6 vs. 5.7 hours. On the other hand, more men (42%) report other web usage than women (33%) and more usage per user as well.

Race/Ethnicity: Whites report more than twice as much weekly Internet usage (4.4 hours) than blacks (2.0 hours), but only about half as much as those in the “other race” category (8.2 hours); that grouping includes Native Americans and Asian Americans among others, not specified in the GSS race variable. This other group has somewhat higher usage rates as well, with a large difference found in user hours per user in the third column of 16 hours a week vs. 9 hours for whites; the right-hand columns show that they are larger users as well for both email and other web use. Whites in turn report higher proportions of users and more usage hours than blacks for both email and other web usage.

Separate figures for Hispanics are shown in the next row, a grouping that includes those coded as white, black and other in the GSS race variable. Higher Internet usage in hours and percentage using is reported by these Hispanic respondents than by all white respondents, with the 12.2 hour usage among users being about 30% higher than among white users. Again, these higher figures are found for both email and other web use.

Age: In general, estimated Internet use tends to decline with age, with the largest declines found after age 54, and again after age 65; these senior citizens report less than a quarter of the usage and usage hours (1.2 hours with 13% being users) of those under age 55. On the other hand, *usage hours per user* (9.4 hours) among seniors are virtually the same as younger age groups. In other words, if seniors use the web they report the same extent of usage as younger respondents. That is true for both email and other web use, the latter being slightly larger for all age groups.

STATUS FACTORS:

Education: Both usage rates and overall usage tend to rise steadily with each category increase in both education. However, usage per user is somewhat higher with those having graduate education—and those with less than a high school degree. Again these differences hold for both email and other web use.

Income: As with education, Internet usage rises with each income level, although usage per user is slightly higher among higher income groups. Again such differences hold for both email and other web use. Note that the usage figure for those who refused or otherwise did not provide income figures tend to below the average for other income groups.

Not shown in Table 1 are figures for regression analyses in which the separate effects of education and income are determined. As in other data sets, education emerges as the much stronger predictor of each aspect of Internet use.

ROLE FACTORS:

Of the three factors examined here, far larger differences are found by work hours and marital status than by presence of children.

Work hours: In general, Internet usage increases with number of hours worked, with those reporting 60 or more hours of work reporting 8.6 hours of overall usage (and a 64% usage rate) vs. only 1.9 hours (and 23%) usage of those reporting no work. Of course, much of the low levels of the non-working group are due to their being retired with no access to a computer at work. The 60+ work hour group also reports 13 hours of usage per user, keeping with the overall pattern of more usage the more time at work. Again, email and other web usage patterns tend to hold across all work hour categories (two notable exceptions being the low usage per user figures for those working less than 20 hours a week and the high other web use figure for those working 30-39 hours).

Although not directly testable with the data at hand, it would appear that longer hours at work afford more opportunity to use the Internet.

Marital Status: Probably reflecting their younger age, never married respondents report most Internet use, followed by married and divorced people, then the separated and finally the widowed. Usage per user, on the other hand, is much more equal by marital state. While widowed people tend to be low in their use of email, differences in email and other web use in other groups follow the same patterns.

Separate regression analyses with age as a predictor, largely accounts for most of these marital status

differences.

Children: As noted above, having children of all ages (especially preteens) is associated with slightly higher Internet use. As might be expected, controlling for age accounts for most of these parental status differences.

LOCATION/ECOLOGICAL FACTORS:

Of the four factors examined here, region and city size are associated with larger usage differences than residence-related factors.

Region: The contrasting regions here are the West (5.3 hours usage and 53% access) and the South (3.6 hours and 41% access) with the Northeast and Midwest in the middle. Hours per user are also highest in the West and lowest in the South (for both email and other web uses).

City Size: Highest usage and access are found in the suburbs of large urban areas (5.3 hours and 50% access) and lowest in non-urban areas (2.5 hours and 37% access), the latter found for both email and other web use.

Home Ownership: Homeowners are somewhat heavier Internet users than non-owners, although non-owners (mainly renters) report more “other” web use (but less email use) than owners.

Housing type: Minimal differences are found between residents of single-family detached houses and those living in town houses and apartments. However, residents of trailers and other housing are somewhat below average in both usage and access. Usage per user, however, is fairly constant across all housing types.

Many of the differences found in this category may well turn out to be a simple function of education or age when multiple regression analyses are completed.

OVERALL:

As in other surveys of Internet users, education and age emerge as the major predictors of Internet usage, and there are fewer differences in email and other web usage than might have been expected. For example, it has been widely reported that most use of the Internet is for email rather than for web surfing or browsing. GSS respondents, however, reported slightly more non-email use.

Gender differences in the GSS data are also larger than in other surveys conducted in year 2000, and that seems true for racial and city size differences as well. The gradations by income level are also much steadier than in other studies.

Table1: GSS Estimated Weekly Hours of Internet Use

| | | Total Internet Time | | | Electronic Mail Time | | | Other Web Time | | |
|-----------------------|---------|---------------------|---------|--------|----------------------|---------|--------|----------------|---------|--------|
| | | Hrs/Wk | Percent | Hrs/Wk | Hrs/Wk | Percent | Hrs/Wk | Hrs/Wk | Percent | Hrs/Wk |
| | | All R's | Users | Users | All R's | Users | Users | All R's | Users | Users |
| Total Sample | (2,283) | 4.2 | 46% | 9.6 | 2.0 | 37% | 5.7 | 2.3 | 37% | 6.4 |
| Birth Factors | | | | | | | | | | |
| Gender | | | | | | | | | | |
| Male | (990) | 5.0 | 50% | 10.5 | 2.1 | 40% | 5.7 | 2.9 | 42% | 7.4 |
| Female | (1,293) | 3.6 | 42 | 8.8 | 1.9 | 35 | 5.6 | 1.8 | 33 | 5.5 |
| Race | | | | | | | | | | |
| White | (1,810) | 4.4 | 48% | 9.4 | 2.0 | 39% | 5.6 | 2.4 | 40% | 6.3 |
| Black | (357) | 2.0 | 28 | 7.1 | 1.0 | 22 | 4.6 | 1.0 | 29 | 4.9 |
| Other | (117) | 8.2 | 54 | 16.0 | 3.7 | 50 | 8.0 | 4.5 | 45 | 10.8 |
| (Combined) | | | | | | | | | | |
| Hispanic | (161) | 5.2 | 44% | 12.2 | 2.7 | 38% | 7.5 | 2.5 | 33% | 7.9 |
| Age | | | | | | | | | | |
| 18-24 | (210) | 5.1 | 55% | 9.9 | 2.1 | 42% | 5.5 | 3.0 | 47% | 5.5 |
| 25-34 | (443) | 5.6 | 58 | 10.2 | 2.7 | 48 | 6.2 | 3.0 | 50 | 6.3 |
| 35-44 | (542) | 5.0 | 56 | 9.4 | 2.3 | 46 | 5.4 | 2.7 | 46 | 6.2 |
| 45-54 | (442) | 4.5 | 51 | 9.4 | 2.1 | 43 | 5.4 | 2.4 | 41 | 6.2 |
| 55-64 | (247) | 2.9 | 33 | 8.9 | 1.3 | 27 | 6.1 | 1.7 | 24 | 7.5 |
| 65+ | (395) | 1.2 | 13 | 9.4 | 0.6 | 12 | 5.3 | 0.6 | 10 | 6.3 |
| Status Factors | | | | | | | | | | |
| Education | | | | | | | | | | |
| HS (Inc.) | (413) | 1.3 | 12% | 10.4 | 0.5 | 8% | 6.5 | 0.7 | 10% | 7.3 |
| HS (Grad.) | (658) | 2.5 | 32 | 7.9 | 1.0 | 24 | 4.4 | 1.4 | 25 | 5.9 |
| Some Coll. | (630) | 4.8 | 53 | 9.4 | 2.2 | 43 | 5.6 | 2.6 | 44 | 6.2 |
| Coll. Grad. | (330) | 6.9 | 75 | 9.8 | 3.2 | 66 | 5.6 | 3.7 | 61 | 6.5 |
| Grad School | (247) | 8.3 | 78 | 11.5 | 4.2 | 71 | 6.9 | 4.2 | 67 | 7.1 |
| Income | | | | | | | | | | |
| \$10-19.9K | (347) | 2.1 | 27 | 8.0 | 1.0 | 22% | 4.5 | 1.1 | 20% | 5.7 |
| \$20-29.9K | (292) | 3.6 | 39 | 9.6 | 1.5 | 32 | 4.9 | 2.1 | 33 | 6.6 |
| \$30-39.9K | (271) | 4.5 | 45 | 10.1 | 2.1 | 35 | 6.4 | 2.4 | 40 | 6.2 |
| \$40-59.9K | (360) | 4.9 | 58 | 9.0 | 2.3 | 47 | 5.4 | 2.6 | 47 | 6.1 |
| \$60-79.9K | (286) | 6.9 | 75 | 10.0 | 3.2 | 64 | 5.5 | 3.8 | 60 | 7.0 |
| \$80+K | (215) | 7.2 | 70 | 10.3 | 3.5 | 61 | 6.6 | 3.7 | 63 | 6.4 |
| Refused/DK | (190) | 3.8 | 35 | 11.1 | 2.1 | 29 | 7.4 | 1.7 | 25 | 7.1 |
| Roll Factors | | | | | | | | | | |
| Work Hours | | | | | | | | | | |
| 0 | (772) | 1.9 | 23% | 8.5 | 0.8 | 18% | 4.7 | 1.1 | 18% | 6.1 |
| 1-19 | (75) | 3.5 | 54 | 6.8 | 1.5 | 47 | 3.5 | 2.0 | 40 | 5.3 |
| 20-29 | (110) | 4.4 | 51 | 8.7 | 2.0 | 41 | 5.1 | 2.4 | 42 | 5.8 |
| 30-39 | (163) | 4.0 | 47 | 8.8 | 1.5 | 36 | 4.5 | 2.5 | 33 | 8.0 |
| 40 | (526) | 5.0 | 56 | 9.5 | 2.5 | 46 | 5.8 | 2.6 | 46 | 5.8 |
| 41-49 | (228) | 6.3 | 64 | 10.5 | 3.1 | 55 | 6.4 | 3.2 | 54 | 6.3 |
| 50-59 | (196) | 5.9 | 65 | 9.3 | 2.4 | 55 | 5.0 | 3.4 | 56 | 6.5 |
| 60+ | (190) | 8.6 | 64 | 13.2 | 4.4 | 58 | 8.6 | 4.2 | 52 | 8.7 |
| Marital Status | | | | | | | | | | |
| Married | (979) | 4.4 | 50% | 9.0 | 2.1 | 42% | 5.5 | 2.3 | 41% | 5.9 |
| Widowed | (234) | 1.0 | 13 | 8.2 | 0.5 | 11 | 4.4 | 0.6 | 9 | 6.1 |

| | | | | | | | | | | |
|---------------------|---------|-----|-----|------|-----|-----|-----|-----|-----|-----|
| Divorced | (89) | 4.6 | 46 | 10.3 | 2.2 | 38 | 6.2 | 2.4 | 37 | 6.7 |
| Separated | (52) | 3.0 | 29 | 10.7 | 1.2 | 22 | 5.6 | 1.8 | 26 | 7.1 |
| Never Married | (331) | 5.1 | 52 | 10.4 | 2.2 | 42 | 5.8 | 2.9 | 43 | 7.1 |
| Children | | | | | | | | | | |
| None 0-5 yrs | (1876) | 4.1 | 44% | 9.6 | 1.9 | 36% | 5.6 | 2.2 | 36% | 6.6 |
| One+ 6-12 | (371) | 4.4 | 49 | 9.5 | 2.1 | 40 | 5.8 | 2.3 | 41 | 5.8 |
| None 6-1 | (1771) | 4.1 | 43 | 9.9 | 1.9 | 35 | 5.8 | 2.2 | 35 | 6.7 |
| One+ 6-12 | (476) | 4.3 | 54 | 8.6 | 2.0 | 43 | 5.0 | 2.3 | 44 | 5.8 |
| None 13-17 | (1408) | 4.2 | 44 | 9.7 | 2.0 | 27 | 5.8 | 2.2 | 36 | 6.5 |
| One+ 13-17 | (340) | 4.1 | 48 | 9.1 | 1.7 | 38 | 4.9 | 2.4 | 40 | 6.3 |
| Ecology | | | | | | | | | | |
| Region | | | | | | | | | | |
| Northeast | (461) | 4.2 | 43% | 10.1 | 2.0 | 35% | 6.5 | 2.3 | 36% | 6.6 |
| Midwest | (548) | 4.1 | 47 | 9.2 | 1.8 | 38 | 5.2 | 2.3 | 38 | 6.3 |
| South | (816) | 3.6 | 41 | 8.9 | 1.6 | 33 | 5.2 | 1.9 | 34 | 6.0 |
| West | (458) | 5.3 | 53 | 10.6 | 2.5 | 45 | 6.1 | 2.8 | 42 | 7.0 |
| City Size | | | | | | | | | | |
| Large city | (769) | 4.0 | 45% | 9.4 | 1.9 | 37% | 5.7 | 2.1 | 36% | 6.0 |
| Suburbs | (826) | 5.3 | 50 | 10.7 | 2.5 | 42 | 6.5 | 2.8 | 41 | 7.1 |
| Midsize city | (292) | 4.0 | 44 | 9.5 | 1.7 | 36 | 5.1 | 2.3 | 35 | 7.0 |
| Non-urban | (397) | 2.5 | 37 | 7.1 | 1.1 | 30 | 3.9 | 1.4 | 29 | 5.1 |
| Owner | | | | | | | | | | |
| Home owner | (1077) | 4.5 | 49% | 9.5 | 2.2 | 40% | 5.9 | 2.4 | 39% | 6.3 |
| Non-owner | (656) | 3.7 | 40 | 9.8 | 1.6 | 32 | 5.3 | 2.1 | 32 | 6.8 |
| Housing Type | | | | | | | | | | |
| Detached | (1,283) | 4.2 | 49% | 9.0 | 2.0 | 40% | 5.6 | 2.2 | 40% | 6.0 |
| Town/Row | (330) | 4.2 | 43 | 10.2 | 2.0 | 35 | 5.9 | 2.2 | 35 | 6.5 |
| Apartment | (450) | 4.5 | 43 | 10.8 | 1.8 | 37 | 5.2 | 2.7 | 35 | 8.0 |
| Other | (174) | 3.1 | 29 | 10.8 | 1.8 | 22 | 8.4 | 1.3 | 24 | 5.8 |