

## DAILY ACTIVITY AND INTERNET USE IN DUAL-EARNER FAMILIES: A WEEKLY TIME-DIARY APPROACH

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### ABSTRACT [\(Data Available\)](#)

*This study compared the time use of parent and child IT users with that of parent and child nonusers. The study took advantage of a year 2000 data collection that involved a national sample of 450 dual-income, middle-class families. All family members kept a complete, weekly account of all of their daily activities. The sample thus has the advantage of being restricted to a relatively homogeneous population group in terms of age, family circumstance and life stage.*

*The major difference found between parent Internet users and nonusers is in terms of the 5+ lower paid work hours of Internet users that offset their 3.5+ weekly hours of Internet use. Parent Internet users slept significantly less, but spent more time reading, radio/music listening and engaging in hobbies. Among children in these households aged 5-18, the major differences between Internet users and nonusers after multivariate adjustments are found in their slightly greater time attending social events and engaging in conversation. Otherwise, the diary figures of Internet users and nonusers, especially for children, are strikingly similar.*

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A major limitation of most American time-diary studies has been their short-term focus, usually the single day. That focus provides only a short-time perspective on how life is affected. Someone who sleeps three hours more than usual or who plays a five-hour game of golf on a diary day has little opportunity to “make up” that time with more normal or needed activity. The problem is further exacerbated if the diary day chosen is a weekend day, a holiday or a vacation day.

One way to circumvent this limitation is to ask respondents to keep diaries over longer time periods, such as two days or a weekend and two weekdays. The problem here, of course, is that the added reporting burden on the respondent can cause significant and costly declines in respondent cooperation. In the present study, these burdens were virtually maximized, since the project goal was to examine the lifestyles of a population group at the peak of time burdens, namely parents and children in dual-income, middle-class families.

## **SURVEY METHODS**

Parents in this national sample of 450 dual-income families came from three different samples. The first sample was originally contacted as part of the University of Maryland Survey Research Center's 2000 National Survey of Parents (NSOP). These families were identified from a Random Digit Dial (RDD) sample of about 1200 parents, using an initial-screen question asking whether any children under 18 lived in that contacted household. If a household contained at least one child, a random parent in that household was selected to complete a 25-minute survey about his or her general patterns of child-rearing. That parent was also asked for a detailed time diary of the previous day's activities. At the end of that interview, those parents who were married and employed, whose spouses were also employed and who had at least some college education (or whose spouse was college-educated), were asked to participate in a further weekly-diary study, to be completed by mail. Participants were offered between \$70 and \$100 to participate, depending on the number of children in the family.

Families who agreed to participate were then mailed a weekly time-diary packet, which contained a separate seven-day diary for each parent and child in the household. Each diary form asked for the family member to record each activity for the 24 hours of each day, the time each activity began and ended, the location and other persons present (secondary activity data were not collected). The “persons present” or “with whom” entry identified any child present according to whether that child was the oldest child in the household, the youngest or a middle child. Interviewers at the Survey Research Center called each family by phone about a week after its mailing to determine whether the family had received the packet and understood its instructions. They were then called a few days later to further confirm participation and instructions,

particularly the need to have completed diaries for *all* members of the family. Upon completion of the weekly diary, each family mailed the completed family diaries back to the University of Maryland.

Of the initial sample of 1200 families, only about 450 met the criteria for inclusion in the Sloan Foundation study criteria, namely being a parent in a middle-class family in which both parents worked 20 or more hours per week. Of these families who were mailed the diary packet, only 128 returned diaries that met the criteria for providing full weekly accounts for all family members.

Because of the small sample size and the high cost of reaching and recruiting cooperating families, a more cost-efficient method of locating families was required. That method involved using the sample facilities of two organizations that already had recruited large, national panels of respondents willing to participate in various survey projects. Because of their large sample base and previous determination of the demographic composition of their samples, both firms were readily able to contact families meeting the study's strict sampling criteria (roughly one eligible family for each 8-12 telephone numbers called). The two panel-sample studies, one from Market Facts and the other from National Family Opinion (NFO), were conducted separately using diary forms, data collection procedures and payment schedules determined to be most appropriate for each organization. In both studies, about one third of the panel families contacted returned satisfactorily completed family diaries. These samples, about 200 from Market Facts and 130 from NFO, also completed other survey questions asked of parents in the University of Maryland NSOP.

Comparison of the weekly time-diaries showed rather consistent results across the three data-collection efforts. Parents in the commercial panel sample reported somewhat more time in religious and other organizational activity in their diaries than did those in the University of Maryland survey (both the weekly diary and the initial NSOP telephone survey), and the mothers in these samples reported somewhat less time at work. Overall, however, the three samples reported similar enough weekly behavior to warrant combining them into the single sample examined in the following analysis.

This analysis follows the logic and procedures used in the preceding article for analyzing diary data. Thus, those 450 adult respondents who reported any time using the Internet or personal computer at any time during the diary week were coded as being "users," whereas the remaining 450 adult respondents were coded as "nonusers." Similarly, those 236 child respondents who reported any time using the Internet or personal computer at any time during the diary week were coded as being "users," whereas the remaining 398 child respondents were coded as "nonusers." A major feature of the sample and the analysis in the present tables is that they are from a highly homogeneous sample, and not one where age, gender, education, employment or life-stage differences could underlie the time-use differences that are found. Moreover, the MCA procedures employed in the previous article are again used to adjust for any undue influence of these factors including age and sex.

## RESULTS

*Parents:* The weekly hour differences shown in Table 1 generally indicate very little difference in the everyday activities of parents who use IT and those who do not. The major difference is that IT users spent 5.4 fewer hours than nonusers for paid-work hours. Family-care activity differences are rather similar, with significantly less child care among users, but not after MCA adjustment. The one significant difference is that IT users sleep less than nonusers—significantly less so after MCA adjustment. This decline in sleep is offset by more time in washing and dressing by about one hour per week, although that is not a significant difference.

What does distinguish the two groups described in Table 1, naturally enough, is that users use IT 3.7 hours more than do nonusers. Those hours seem to come at the expense of about the five hours less paid work time. Whether there is a direct trade-off involved, perhaps as IT users do their work at home or use IT as a substitute for work, cannot be determined from the present data set at this time.

As for other free-time activities, parent IT users spend statistically significantly *more* time in hobbies and in radio and record listening than nonusers—before and after MCA controls for age and sex. Adult IT users also spend slightly but significantly more time reading. They watch about an hour's less TV than nonusers, but the difference is not significant. There is virtually no difference in travel time between users and nonusers.

*Children:* Table 2 shows the weekly hour differences in activities between IT users and nonusers among the children's age group of 5-18 years old. Only the higher grooming activities of nonusers are statistically significant among non-free-time activities, and that significance does not hold up after controls for age and sex.

Of available free-time activities, nonusers are more likely to engage in hobbies than users, but again not after MCA adjustment. Two activities emerge as significant after MCA adjustment, although not in bivariate relations, namely more social events and more conversation among Internet users. Again, the biggest difference between the two groups is that users spend 4.9 more hours per week than nonusers on computer and Internet time.

## SUMMARY AND CONCLUSIONS

In comparing the weekly social activities of IT users and nonusers among the relatively homogeneous population segment of college-educated parents in dual-income families, little evidence of different everyday activities is found. Parental IT users do spend significantly more time than nonusers in hobbies and listening to radio and records, and less time in paid work and sleeping.

**TABLE 1: ACTIVITY DIFFERENCES BETWEEN INTERNET USERS AND NONUSERS:  
WEEKLY DIARY BASIS FOR PARENTS (YEAR 2000–2001 WEEKLY TIME DIARY DATA—IN  
ACTUAL HOURS PER WEEK)**

Parents (age 25-64)		Nonuser (n=450)	User (n=450)	IT difference	Significance	
					ANOVA Test	MCA Test†
<b>Non-Free-Time Activities</b>						
<b>Work</b>	Work	36.9	31.5	-5.4	***	***
	Study	0.4	0.4	0.0		
<b>Family</b>	Housework	12.9	13.3	0.4		
	Child Care	5.1	6.1	1.0	*	
	Shopping, Doctor	3.3	3.6	0.3		
<b>Personal</b>	Sleeping	55.7	54.6	-1.1	*	*
	Eating	8.1	8.4	0.2		
	Washing, Dressing	6.1	7.1	1.0		
<b>Free-Time Activities</b>						
<b>Social</b>	Church, Religion	1.3	1.3	0.0		
	Other Organization	1.4	1.3	0.0		
	Movies, Sports, Culture	1.4	1.6	0.2		
	Visiting, Socializing	3.1	3.1	0.0		
	Conversation	2.2	2.4	0.2		
<b>Media</b>	TV, Videos	11.8	11.0	-0.8		
	Reading	2.3	2.7	0.4		
	Radio, Records	0.2	0.3	0.1	*	*
	PC, Internet	0.0	3.7	3.7	***	***
<b>Other</b>	Exercise, Play Sports	2.9	2.6	-0.3		
	Hobbies	0.7	1.1	0.4	**	*
	Thinking, Relaxing	0.8	0.8	0.0		
	Other Home	0.5	0.3	-0.2		
<b>Travel</b>	Auto Travel	11.0	10.8	-0.2		
<b>Total</b>		168.0	168.0			

† Adjusted by sex and age group (25-34;35-44;45-59)  
\* Difference significant at  $p < .05$  level; \*\*  $p < .01$  level; \*\*\*  $p < .001$  level

**TABLE 2: ACTIVITY DIFFERENCES BETWEEN INTERNET USERS AND NONUSERS: WEEKLY DIARY BASIS FOR CHILDREN (YEAR 2000–2001 WEEKLY TIME DIARY DATA—IN ACTUAL HOURS PER WEEK)**

Children (age 5-18)		Nonuser (n=236)	User (n=398)	IT difference	Significance	
					ANOVA Test	MCA Test†
<b>Non-Free-Time Activities</b>						
<b>Work</b>	Work	2.3	2.0	-0.3		
	Study	26.4	24.9	-1.5		
<b>Family</b>	Housework	3.7	4.1	0.4		
	Child Care	0.6	0.4	-0.2		
	Shopping, Doctor	1.9	2.1	0.2		
<b>Personal</b>	Sleeping	65.6	66.1	0.5		
	Eating	8.7	8.4	-0.3		
	Washing, Dressing	5.8	4.9	-0.9	**	
	Other; NA	4.6	2.5	-2.1		
<b>Free-Time Activities</b>						
<b>Social</b>	Church, Religion	1.7	1.4	-0.3		
	Other Organization	1.1	1.1	0.0		
	Movies, Sports, Culture	1.3	1.5	0.2		*
	Visiting, Socializing	3.4	3.1	-0.2		
	Conversation	1.5	1.8	0.4		*
<b>Media</b>	TV, Videos	12.9	13.2	0.3		
	Reading	1.6	1.7	0.1		
	Radio, Records	0.6	0.5	0.0		
	PC, Internet	0.0	4.9	4.9	***	***
<b>Other</b>	Exercise, Playing Sports	6.9	7.5	0.6		
	Hobbies	8.3	6.8	-1.5	*	
	Thinking, Relaxing	0.9	1.2	0.3		
	Other Home	0.3	0.5	0.2		
<b>Travel</b>	Auto Travel	8.1	7.8	-0.3		
<b>Total</b>		168.0	168.0			
† Adjusted by sex and age group (25-34;35-44;45-59)						
* Difference significant at p < .05 level; ** p < .01 level; *** p < .001 level						

However, IT users do not spend significantly less time than nonusers on other family, personal care and free-time activities. Although the diaries do not identify what the purposes of IT usage are, it is possible that IT users use the Internet and PCs to work and watch videos. However, it is interesting to find that IT users spend more time than nonusers in hobbies other than using the Internet.

The results for children ages 5 through 18 are also generally insignificant. Again, it is found that child IT users spend about 5 hours per week using PCs and the Internet, but they do not differ from nonusers in most other activities, except for spending slightly more time in family conversation, going to movies and other social events.