

FINAL REPORT

What's Work?  
Respondents' Interpretations of  
Work-Related Summary Questions

*Lisa K. Schwartz*  
The American Time Use Survey  
Bureau of Labor Statistics

*Siri Lynn*  
The Idea Exchange

*Jayme Gortman*  
The American Time Use Survey  
Bureau of Labor Statistics

October 2001

## TABLE OF CONTENTS

<b>ACKNOWLEDGEMENTS .....</b>	<b>3</b>
<b>BACKGROUND AND PURPOSE.....</b>	<b>8</b>
<b>STUDY 1.....</b>	<b>10</b>
<b>DESIGN AND METHODOLOGY .....</b>	<b>10</b>
RECRUITMENT SPECIFICATIONS AND PROCESS .....	10
PARTICIPANTS.....	11
INTERVIEWERS.....	12
PROCEDURE .....	13
<i>Time Use Interview</i> .....	13
<i>Cognitive Interview</i> .....	14
<b>RESULTS .....</b>	<b>15</b>
QUANTITATIVE FINDINGS .....	15
<i>Time Diaries</i> .....	15
PROBING FOR MAIN OR OTHER JOB.....	16
SUMMARY QUESTIONS.....	17
QUALITATIVE FINDINGS.....	19
<i>General Reactions</i> .....	19
<i>Rating Scales</i> .....	24
<i>Interpretation of Summary Questions</i> .....	28
<i>Activity-by-Activity Review</i> .....	35
<i>Secondary work activities</i> .....	36
<i>Alternative Wordings</i> .....	37
<b>SUMMARY AND RECOMMENDATIONS.....</b>	<b>38</b>
SUMMARY.....	38
OUTSTANDING ISSUES AND DIRECTIONS FOR FUTURE RESEARCH .....	38
<i>Issues Addressed by QDT</i> .....	39
<i>Issues Related to Help Screens and Frequently Asked Questions</i> .....	39
<i>Issues Related to Concepts of Work</i> .....	39
<i>Recommendations for Future Research</i> .....	40
<b>REFERENCES.....</b>	<b>42</b>
<b>APPENDIX A: ATUS MOCK INTERVIEW PROTOCOL .....</b>	<b>43</b>
<b>APPENDIX B: STUDY 1. COGNITIVE INTERVIEW PROTOCOL .....</b>	<b>50</b>
<b>APPENDIX C: STUDY 2. FICTIONAL SCENARIOS .....</b>	<b>58</b>

## **ACKNOWLEDGEMENTS**

Paul Chen is thanked for his assistance with data collection.

## Executive Summary

The following paragraphs describe the results of a recently completed cognitive test of the effectiveness of a series of work-related summary questions in the American Time Use Survey. A more detailed discussion follows in the remainder of the paper.

### **Background and Purpose**

The Bureau of Labor Statistics (BLS) is in the process of developing a nationally representative survey that will measure how Americans spend their time. As part of the survey development process, BLS has been engaged in a series of cognitive pretesting efforts designed to ensure that respondents understand survey questions in a manner that is consistent with the survey developers' intent.

The American Time Use Survey (ATUS) relies on the use of time diary probes and summary questions to accurately capture all market work and work-related activities. The present study evaluates the effectiveness of these methodologies in addressing the following issues related to the collection time spent working:

Can time diary probes and summary questions successfully measure time spent working by individuals who work from nonstandard work environments or who work flexible or staggered hours?

Can time diary probes be used to determine whether multiple job holders' work activities were undertaken on behalf of their MAIN or their OTHER job? If so, can effective probing be done without unduly burdening respondents who hold multiple jobs?

Can a summary question approach be used to effectively identify work activities done outside of standard work environments or outside of "normal" work hours?

Can a summary question approach be used to accurately identify informal income-generating activities?

### **Methodology and Design**

Fifty adults (31 women, 19 men) each participated in a mock ATUS interview followed by an intensive cognitive interview. Ten self-employed individuals who worked from their homes or other nonstandard work environment, 10 multiple jobholders, 12 telecommuters, 8 salaried workers and 10 freelancers were recruited for this study. Fifteen respondents (5 each of self-employed, telecommuter and multiple job-holder respondents) were recruited and interviewed in Stamford, CT. The other 40 respondents were recruited and interviewed in Washington, DC.

Respondents reported their 24-hour time diary and then were asked the following set of summary questions:

- Lead Because so much of our time is spent working, I'd like to ask you a few questions to make sure that this survey doesn't miss any of your work activities.
- PW1 (Other than the times you said you were at work) Were any of the activities you mentioned done for your job (or business)?
- PW2 [If yes to PW1], Which ones?
- PW3 Were there any (other) activities that you were paid for or expect to be paid for? [Read if necessary: These could include things like crafts that you sell on the side].
- PW4 [If yes to PW3], Which ones?

Upon completion of the mock ATUS interview, respondents engaged in a face-to-face cognitive interview designed to address the following issues:

- The ease or difficulty with which respondents could recall required information in the ATUS interview,
- The confidence with which respondents could report the required information,
- Respondent interpretations of the work-related summary questions, and
- Omissions and other errors in responses to summary questions.

Midway through the data collection period, the cognitive interview was redesigned to ask respondents about work as a secondary activity. All salaried workers and all freelancers answered questions about simultaneous, secondary work activities.

The principle findings from this study include:

1. Thirty-three of 50 respondents<sup>1</sup> reported at least one work activity in the time diary.
2. Across respondents, an average of 1.3 work activities were reported in the time diary and respondents spent an average of 6:45 hours in work activities reported in the time diary.
3. Six of 10 multiple job holders engaged in activities for their MAIN job only, 1 multiple job holder worked solely at his OTHER job, and 3 multiple job holders worked at both their MAIN and their OTHER jobs on their reference day.
4. In response to the first summary question, 31 of 50 respondents reported at least one activity that was done for their job or business. Respondents reported an

---

<sup>1</sup> One respondent failed to show up for her appointment. Data from four other telecommuters were excluded from analyses because respondents did not telecommute on their reference day. One self-employed respondent did not work on her reference day. Her data were also excluded from analyses.

average of 2.7 activities done for their job or business and spent an average of 4:05 hours engaged in these activities.

5. Multiple jobholders reported significantly more time at work in the time diary. Self-employed respondents and freelancers reported significantly more time in activities done for their jobs or businesses than did multiple-job holders, salaried workers or telecommuters.
6. Sixteen of 50 respondents reported at least one activity that was done for pay. Respondents who reported any activities for pay reported an average of 0.92 activities and spent an average of 5:58 hours engaged in income-generating activities. There were no statistical differences between groups with respect to their reports of activities done for pay.

The following are the key findings from the cognitive interview:

1. In general, respondents enjoyed the survey although some regional differences emerged with respect to the perceived intrusiveness of the survey topic.
2. Respondents had some difficulty answering questions about “who was in the room” with them because they were unsure how to respond if people were in and out of the room during an activity. Some respondents also found this question intrusive.
3. Respondents reported that the chronological structure of the survey enhanced its flow and facilitated recall.
4. Respondents who reported work in the time diary were confused by the phrase “Other than the times you said you were at work...” This was particularly true of respondents who had worked from home or some other nonstandard work environment.
5. Respondents defined activities that are done for one’s job or business more broadly than had been intended. They included work preparation activities like ironing clothes and networking or other relationship-building activities in their reports.
6. Respondents also interpreted activities for which one is paid or expects to be paid more broadly than had been intended. They included all income-generating activities such as investment activities.
7. Responses to the summary questions omitted simultaneous work activities that usually occurred while commuting. They also omitted activities that were done for work and for personal interest. Respondents were confident that they could estimate the duration of the work portion of these dual-purpose activities.

Based on the findings of this study, the following recommendations are offered:

- During the time diary, selectively probe the following activities to determine if they were done for work:
  - Telephone calls
  - Reading
  - Computer and other technology (i.e., palm pilots) use

- Remove the phrase “Other than the times you said you were at work,” from the first summary question.
- Develop a help screen to assuage concerns about confidentiality and perceived intrusiveness.

It is recommended that ATUS management develop conceptual definitions of the activities that are included in the category “done for one’s job or business” and “done for pay or with the expectation of payment.”

## WHAT'S WORK? RESPONDENTS' INTERPRETATIONS OF WORK-RELATED SUMMARY QUESTIONS

### BACKGROUND AND PURPOSE

The Bureau of Labor Statistics (BLS) is in the process of developing a new survey to measure how Americans spend their time. Preliminary testing of the American Time Use Survey (ATUS) began in 1997 when a field test was undertaken to determine the feasibility of conducting a nationally representative time-use survey by telephone. The ATUS was funded in December 2000 and goes into full production in January 2003 as a computer-assisted telephone interview (CATI). As part of the survey development process, BLS has engaged in a series of questionnaire pre-testing activities designed to ensure the collection of accurate and reliable data.

During a time-use survey interview, respondents provide information about how they spent their time during the previous day. During the first part of the interview, the *time diary*, respondents provide a sequential list of activities and estimate the duration of those activities. Upon completion of the *time diary*, respondents are asked a series of *summary questions* that focus on specific activities of interest. *Summary questions* probe for details that respondents may not provide in the *time diary*.

The ATUS collects information about time spent working in both the *time diary* and with a series of *summary questions*. The *time diary* successfully captures time spent at work by individuals who “go to work.” For example, on workdays, most respondents report some amount of time spent at home engaged in various activities. Then, they report traveling to work and report the time they started working and the time they stopped working. Respondents are asked about breaks of 15 minutes or longer that occur during the workday to identify nonwork-related activities such as lunch breaks or personal errands. The *time diary* also captures time spent engaged in work activities when respondents clearly specify that a reported activity constituted work. These activities may be identified in response to interviewer probes of select activities or may be identified through additional information volunteered by the respondent. For example, interviewers are trained to probe reports of reading to determine whether the purpose of reading was primarily work-related or for personal interest. The use of probes, in these instances, will allow an interviewer to accurately identify work-related activities and will ensure that such activities are coded appropriately. In comparison, some respondents, but not all, may volunteer additional information about activities that are not currently probed. For example, a respondent may report that a phone call was made to a client and was a “work” call. However, in the absence of predetermined probes for “telephone calls” some work-related calls (and other activities) may not be accurately recorded in the *time diary* or accurately coded.

To help capture work-related activities without necessitating extensive and burdensome probing, BLS developed a series of work-related *summary questions*. Stinson (2000) conducted a preliminary test of a question that asked respondents to identify all activities for which they were paid or expected to be paid. This question successfully identified informal income-generating activities, like crafts that are sold on the side, but did not identify other work-related activities. Thus, a number of

issues related to the collection of paid work and work-related activities remained unresolved. The ATUS has attempted to address these issues through the use of additional *time diary* probes and a series of *summary questions*. The purpose of the present study is to evaluate the effectiveness of these methodologies in addressing the following issues:

1. Can the ATUS successfully measure the amount of time spent working by self-employed respondents, telecommuters, and other individuals who work from nonstandard work environments or whose work hours are staggered throughout the day?

Measuring the amount of time spent working by these individuals introduces two areas of concern: First, respondents who “go to work” may have an easy time following instructions to omit from their reports the individual activities that constitute their workday. They simply report the time they started working and the time they stopped. In comparison, individuals who do not “go to work” may have difficulty responding in this way; they may end up reporting individual activities that make up their workday. If this is the case, then these individuals face a more burdensome interview. Second, the *time diary* may underestimate the amount of time the self-employed and other nonstandard job-holders spend working because interviewers will be unable to use travel information (e.g., “I went to work.”) and location information (e.g., “I was at work.”) to help them identify work activities.

2. For respondents with multiple jobs, can probes during the collection of the diary be used to effectively identify for which job an activity was undertaken without unduly burdening respondents?

The ATUS is interested in coding work activities done for a main job separately from activities done for a second or other job. This classification scheme requires that multiple jobholders be able to report easily and accurately the job for which an activity was performed.

3. Can the ATUS identify work activities done outside of standard work environments or outside of “normal work hours?”

Anecdotal evidence suggests that people are bringing work home with them and working beyond their scheduled work hours. Can the ATUS collect reliable data about these kinds of work activities?

4. Can the ATUS accurately identify informal income-generating activities, such as crafts or hobbies, that may be categorized incorrectly in the absence of detailed information about the purpose of the activity?

Prior testing has shown that a question that asks people about activities for which they *expect to be paid* successfully elicits reports of informal income-generating activities such as crafts that are sold on the side. However, the criteria that people use in determining whether they should expect to be paid for a particular activity was not investigated. The reliability of responses to this question will be called into question if there is evidence to suggest that respondents engage in wishful thinking when reporting their expectations.

The present study examined the *time diaries* of individuals who work from standard (e.g., salaried workers) and nonstandard work environments (e.g., self-employed individuals, telecommuters and freelancers) and evaluated the reporting burden placed on multiple job holders. Two work-related *summary questions* were evaluated using cognitive interview techniques.

Midway through data collection, two additional research issues were incorporated into the cognitive interview protocol. (1) Preliminary interviews with self-employed respondents, telecommuters and multiple jobholders revealed that respondents were interpreting the work-related questions more broadly than had been intended by the researchers. To address this issue, fictional scenarios were developed that depicted protagonists engaged in various activities that could be considered work-related. Respondents were asked to judge whether the protagonist was engaged in an activity for his/her job or business and whether the activity was one for which the protagonist should expect to be paid.

(2) With the exception of childcare, the ATUS does not collect information about secondary activities. Economists, survey methodologists and respondents have all expressed concern about this data limitation. As a preliminary investigation into the feasibility of collecting information about secondary work activities, all salaried workers and freelancers as well as some self-employed respondents and telecommuters were asked, during the debriefing, to identify any simultaneous, secondary work activities that they may have engaged in on their reporting day.

## **STUDY 1**

### **DESIGN AND METHODOLOGY**

#### **RECRUITMENT SPECIFICATIONS AND PROCESS**

The Office of Survey Methods Research (OSMR) recruited 35 participants in Washington, DC and the Idea Exchange recruited 15 participants in Stamford, CT. Both recruiting offices first contacted participants in their research databases, and then recruited prospective participants through newspaper and website advertisements, and flyers. Participants in the DC-area were paid \$25 for their participation and participants in the Stamford-area received \$65<sup>2</sup>.

Specifications for recruiting participants were as follows:

- Self-employed respondents worked in their home and/or in some other nonstandard work environment. None of the self-employed respondents worked in a retail or franchise business.
- Respondents who qualified as multiple jobholders were employed in and were paid for two or more full time and/or part time jobs.

---

<sup>2</sup> For details about this reimbursement experiment, see Schwartz, Lisa (September, 2001). "The Use of Reimbursements in Cognitive Research: Research Costs and Data Quality." BLS Working Paper.

- Telecommuter respondents were employed full time or part time. All of the telecommuters spent 50% or more of their professional time working from their home or on the road away from their company’s office. During the initial telephone screening, telecommuters self-reported that they were extremely likely or very likely to conduct business away from their company’s office on the day before their interview.
- Salaried workers worked mainly from an office, factory or store and self-reported during a screening call that bring work home with them or work from somewhere other than an office, factory or store at least once a week.
- Freelancers self-reported that they considered themselves to be an artist or they had a hobby or craft that they sell on the side. Consultants and independent contractors were not eligible for this study.
- A good mix of company sizes and business types were represented across all interviews. None of the respondents worked in government.

**PARTICIPANTS**

Fifty respondents (19 men, 31 women) each participated in a single experimental session. Fifteen respondents were black, 27 were white and 7 were Asian<sup>3</sup>. Respondents ranged in age from 18 - 75 (M =45.4, SD = 11.6) and had an average of 15.9 years of education (SD = 1.8, range: 12-21 years). During an initial screening call, respondents self-reported their annual household income. The average household income was \$59,000 (SD = \$24,593; median = \$52,500).

Tables 1 and 2 summarize the demographics of each of these groups.

Table 1. Demographic composition of groups

	Race			Gender		Children in household	
	Black	White	Other	M	F	Yes	No
Self-employed (n=10)	3	6	1	5	5	4	6
Multiple jobs (n=10)	3	5	2	5	5	5	5
Telecommuters (n=12)	2	8	2	4	8	3	9
Salaried (n=8)	3	4	1	3	5	4	4
Freelancers <sup>4</sup> (n=10)	4	4	1	2	8	3	7
<b>Total</b>	<b>15</b>	<b>27</b>	<b>7</b>	<b>19</b>	<b>31</b>	<b>19</b>	<b>31</b>

<sup>3</sup> One respondent did not provide race information.

<sup>4</sup> One freelancer did not provide race information.

Table 2. Demographic differences between groups

		Age	Education (in years)	HH Income	HH size	Age youngest child
Self-employed	Mean	46.4	15.8	\$62,222	2.7	4.8
	SD	13.6	1.8	\$25,994	1.3	3.8
	Median	43.5	16	\$60,000	2.5	3.5
Multiple jobs	Mean	46.1	14.7	\$53,4000	3.1	11.2
	SD	10.0	2.0	\$24,061	1.9	6.7
	Median	48	14	\$49,500	3	14
Telecommuters	Mean	42.5	16.8	\$71,111	2.5	11
	SD	11.9	1.5	\$24,720	1	7
	Median	41	16	\$75,000	2	14
Salaried	Mean	42.9	16.25	\$60,000	2.8	6
	SD	9.1	1.8	\$23,508	1.4	2.6
	Median	43.5	16	\$54,000	2	5
Freelancers	Mean	49.8	16	\$37,500	1.8	7.7
	SD	13.4	1.2	\$11,902	1.2	4.6
	Median	49	16	\$37,500	1	5
<b>Total</b>	Mean	<b>45.4</b>	<b>15.9</b>	<b>\$59,000</b>	<b>2.6</b>	<b>8.3</b>
	SD	<b>11.6</b>	<b>1.8</b>	<b>\$24,592</b>	<b>1.4</b>	<b>5.5</b>
	Median	<b>45</b>	<b>16</b>	<b>\$52,500</b>	<b>2</b>	<b>6.5</b>

Univariate analyses of variance (ANOVAs) were conducted with employment type as the independent variable. With respect to the demographic composition of the groups, only the difference in years of education approached statistical significance<sup>5</sup>. Post-hoc analyses using Tukey's HSD revealed that multiple jobholders had significantly fewer years of education ( $M = 14.7$ ) than did telecommuters ( $M = 16.8$ ). No other demographic differences between groups were significant.

### **INTERVIEWERS**

Three interviewers conducted 50 mock ATUS interviews and cognitive debriefings. Interviewer 1 is an independent qualitative researcher with 10 years of experience conducting one-on-one interviews. Interviewer 1 conducted 27 interviews. Interviewers 2 and 3 are undergraduate student interns at BLS. Both interns completed a 2-day workshop on cognitive interviewing techniques and completed 5 practice interviews prior to data collection. Interviewer 2 conducted 17 interviews and Interviewer 3 conducted 6 interviews.

Table 3 shows the average number of activities reported in respondents' time diaries for each interviewer. There is no evidence of interviewer effects on the quality of the data collected in the time diary.

<sup>5</sup>  $F(4,42) = 2.093, p = 0.099$ .

Table 3. Average number of activities reported in time diaries

	Activities in time diary		
	Mean	SD	Median
Interviewer 1 (n=27)	25.5	7.8	24
Interviewer 2 (n=17)	22.6	8.4	22
Interviewer 3 (n=6)	25	6.6	26.5
<b>Total (n=50)</b>	<b>24.5</b>	<b>7.9</b>	<b>24</b>

### **PROCEDURE**

The study methodology used one-on-one interviews conducted in Washington, D.C and in Stamford, Connecticut. Respondents completed a mock ATUS interview followed by a face-to-face cognitive interview. Each session lasted approximately 60 minutes.

### **Time Use Interview**

Respondents engaged in a telephone interview that included the introduction to the ATUS, a household roster update, time diary instructions and time diary, and two work-related summary questions.

Prior testing efforts (Stinson, 2000; Westat, 1997) determined that a summary question that asked respondents to identify all activities for which they were paid or expect to be paid successfully elicited reports of informal income-generating activities. However, the same question did not successfully measure work-related activities, particularly those done by self-employed individuals. Based on the findings from cognitive interviews with self-employed individuals (Stinson, 2000), the following summary question was drafted to measure work activities done outside of standard work environments:

*“(Other than the times you said you were at work) Were any of the activities you mentioned done for your job (or business)?”*

This summary question was administered immediately upon completion of the time diary. The first parenthetical was used when respondents reported work activities in the time diary. The second parenthetical was used with self-employed respondents.

A second summary question followed that asked:

*“Were there any (other) activities that you were paid for or expect to be paid for? [Read if necessary: These could include things like crafts that you sell on the side.]”*

The first parenthetical was read when respondents reported work activities in the *time diary* or identified work-related activities in response to the first *summary question*. A positive response to either summary question was followed by a request to identify all relevant activities in the time diary.

Both the time diary and summary questions were administered over the telephone. The mock ATUS interview protocol is included in Appendix A.

### **Cognitive Interview**

Upon completion of the mock-ATUS interview, respondents engaged in a face-to-face cognitive interview designed to examine the ease and confidence with which respondents could provide needed information in the ATUS interview and their interpretation of the work-related summary questions. The cognitive interview included an activity-by-activity review of the respondents' time diaries to identify any activities that were omitted in response to the summary questions. The debriefing protocol is included in Appendix B.

The debriefing protocol was modified midway through data collection. The further probe respondents' interpretation of the kinds of activities that are done for one's job or business and the kinds of activities that are done for pay, fictional scenarios were developed. Each scenario depicted an ambiguous situation in which the protagonist engaged in an activity that could be considered work-related. Respondents were asked to judge each scenario twice. First, they indicated whether or not the activity was one that was being done for the protagonist's job or business. They then indicated whether the protagonist should expect to be paid for the activity. Responses were probed to reveal respondents' decision-making process. The fictional scenarios are included in Appendix C.

A second modification to the protocol asked respondents to review their time diaries and identify all episodes in which they were engaged in a secondary work activity. Respondents were asked:

*You may have noticed that during the telephone interview, we only collect information about the MAIN activity that people are doing. We realize, however, that sometimes people "multi-task" or do more than one thing at a time. I'd like you take one more look at your diary from yesterday. I'd like you to go through the diary and pick out all the times that you were working, even if the main activity that you were doing was something else. (If necessary - For example, yesterday morning, while I was eating breakfast I was also reading a report for work. My main activity was eating breakfast but I was also working.).*

The debriefing sessions were audiotaped and are the basis for this report.

### **A Qualitative Caveat**

This study is qualitative, not quantitative. As such, it is best used for insight, direction, and guidance. Findings and conclusions require quantification before they can be projected to populations larger than the sample studied here.

## RESULTS

### QUANTITATIVE FINDINGS

For analytical purposes, significance was set at  $p < .10$  (90% confidence).

#### Time Diaries

The administration of the time diaries was not timed in this study. Based on interviewer observations, the mock ATUS interview took between 15 and 30 minutes to complete, depending upon the complexity of the respondent's reference day.

On average, respondents reported 24.5 activities per diary (SD= 7.9, median = 24, range 11-44). There were no differences between groups with respect to the overall number of activities they reported in their time diaries. Self-employed respondents averaged 25.6 activities per diary (SD = 9.1), multiple job holders averaged 22.8 activities (SD = 4.8), telecommuters averaged 25 activities (SD = 8.7, salaried workers averaged 27.9 activities (SD=8.0) and freelancers averaged 21.6 activities (7.9) in their time diaries.

Thirty-three of 50 respondents (66%) reported at least one work activity in the time diary. Multiple jobholders were more likely to report work activities in the time diary than were any of the other types of workers. Nine of 10 multiple job holders (90%) reported at least one work activity in the time diary. In comparison, 7/12 (58%) telecommuters, 5/10 (50%) self-employed respondents, 4/10 (40%) of freelancers and only 3/8 (38%) of salaried workers reported at least one work activity in the time diary<sup>6</sup>.

Table 4 summarizes the findings from 33 time diaries in which work activities were reported.

---

<sup>6</sup> Because we were interested in the effectiveness of a summary question to identify work done from a nonstandard work environment or done on off-hours, Monday interviews were conducted about Sunday's activities. Half of the salaried workers who participated in this study were interviewed on a Monday.

Table 4. Time diary data

	Mean	SD	Median	Range
<b>Number of work activities reported in diary</b>				
Self-employed	1.7	2.5	1	1-8
Multiple job holders	2.1	1.0	2	2-4
Telecommuters	1.0	1.0	1	1-2
Salaried Workers	0.5	0.8	0	1-2
Freelancers	0.8	1.3	0	1-4
<b>Total</b>	<b>1.3</b>	<b>1.5</b>	<b>1</b>	<b>1-8</b>
<b>Time spent at work in diary</b>				
Self-employed	4:55	2:41	4:52	0:45 - 8:00
Multiple job holders <sup>7</sup>	8:07	1:32	7:45	6:15 - 11:05
Telecommuters	7:29	1:37	7:45	4:00 - 9:35
Salaried Workers	7:23	0:20	7:30	7:00 - 7:40
Freelancers	4:27	3:40	3:50	0:40 - 9:30
<b>Total</b>	<b>6:45</b>	<b>2:28</b>	<b>7:22</b>	<b>0:40 - 11:05</b>

Groups were significantly different with respect to the amount of time they spent at work as reported in the time diary<sup>8</sup>. In their time diaries, multiple jobholders reported significantly more time working than did either self-employed or freelance respondents.

#### **PROBING FOR MAIN OR OTHER JOB**

During the time diary, multiple jobholders were asked to indicate whether work activities were done for their MAIN or OTHER job. Six of 10 multiple job holders reported work at their main job only, 1 reported work at his other job only, and 3 reported work at both their main and their other job. The respondent who reported only time at his other job spent 0:45 minutes in a single activity done for his other job. Respondents who only reported time at their main job spent an average of 7:38 hours at work. Respondents who worked at both their main and their other job reported an average of 5:06 hours at work. The relevant data are presented in Table 5.

Table 5. Time spent at work by multiple jobholders

	Main Job Only	Other Job Only	Both Main and Other	All Multiple Job Holders
Mean	7:38	0:45	5:06	5:56
SD	0:36		2:27	2:35
Median	7:30		6:07	7:00
Range	7:00-8:30		0:45-7:20	0:45-8:30

<sup>7</sup> Includes all work activities reported in the time diary by multiple jobholders. This includes time at main job and time at an other job if a respondent reported both.

<sup>8</sup>  $F(4,25) = 3.495, p < .03$

### SUMMARY QUESTIONS

Thirty-one of 50 respondents (62%) reported that they had engaged in at least one activity that was done *for their job or business*. Respondents who reported at least one activity done for their job or business reported an average of 2.7 activities (SD = 4.3) and spent an average of 4:05 hours (SD = 3:23) engaged in these work-related activities.

Six of 8 salaried workers (75%), 7/10 self-employed respondents (70%) and 7/10 freelancers (70%) identified at least one activity that had been done *for their job or business*. In comparison, only 5/12 telecommuters (42%) and 4/10 multiple jobholders (40%) reported at least one activity that was done for their job or business. The relevant data is presented in Table 6.

Table 6. Responses to “Were any of the activities you mentioned done for your job or business.”

	Mean	SD	Median	Range
<b>Number of activities done for job or business</b>				
Self-employed	6.3	6.8	4	2-20
Multiple job holders	0.5	0.7	0	1-2
Telecommuters	2.8	4.0	1.5	1-14
Salaried	1.4	1.3	1	1-4
Freelancers	2.1	2.1	1.5	1-6
<b>Total</b>	<b>2.7</b>	<b>4.3</b>	<b>1</b>	<b>1-20</b>
<b>Time spent in activities for job or business</b>				
Self-employed	6:56	3:01	6:35	2:20-11:20
Multiple job holders	1:23	0:52	1:07	0:45-2:35
Telecommuters	2:51	3:14	1:27	0:05-9:30
Salaried	1:40	1:27	1:30	0:15-4:15
Freelancers	5:52	3:02	5:00	1:30-10:20
<b>Total</b>	<b>4:05</b>	<b>3:23</b>	<b>3:45</b>	<b>0:05-11:20</b>

Groups were significantly different with respect to the number of activities reported as done for their job or business and with respect to the amount time they spent in these activities<sup>9</sup>. Post-hoc analyses using Tukey’s HSD found that self-employed respondents reported a significantly higher number of activities done for their jobs or businesses than did either multiple job-holders or salaried workers. Similarly, self-employed respondents reported significantly more time spent in activities done for their jobs or business than did multiple job-holders, salaried workers or telecommuters. Freelancers reported significantly more time in activities for their job or business than did either multiple job holders or salaried workers. Table 7 summarizes respondents’ reports of work activities.

<sup>9</sup>  $F(4,46) = 3.393$ ,  $p < .02$  for number of activities and  $F(4,46) = 5.553$ ,  $p < .01$  for time.

Table 7. Comparisons of time spent working as reported in the time diary and in response to the job/business summary question.

	Work time reported in diary		Work time reported in response to summary question	
	Mean	SD	Mean	SD
Self-employed respondents	4:55	2:41	6:56	3:01
Multiple job holders	8:07	1:32	1:23	0:52
Telecommuters	7:29	1:37	2:51	3:14
Salaried	7:23	0:20	1:40	1:27
Freelancers	4:27	3:40	5:52	3:02

Sixteen of 50 respondents (32%) reported any additional activities for which they were paid or for which they expected to be paid. Respondents who reported any paid activities reported an average of 0.9 activities (SD= 2.3, range 1-14) and spent an average of 5:58 hours (SD= 3:05, range: 0:00-9:40) engaged in activities for pay. There were no statistically significant differences between groups with respect to the number of paid activities or the amount of time spent in paid activities. However, freelancers were most likely to report any paid activities (5/10, 50%) and multiple jobholders were least likely (0/10). Five of 12 telecommuters (42%), 4/10 self-employed respondents (40%) and 2/8 salaried workers (25%) reported at least one paid activity in response to the summary question.

## QUALITATIVE FINDINGS

### General Reactions

When respondents were asked for their overall reactions to the telephone survey, typical comments were that the survey was straightforward, clear, and concise, and it was not confusing. It also was easy to do. It was faster and easier than some initially expected.

*“It was painless.”*

*“It went fast. It didn’t seem like it took 20 minutes.”*

*“I was turned off at first when you said it would take 20 minutes.”*

Some respondents reported that they enjoyed the opportunity to answer questions about how they spent their day. They found it stimulating and even fun to think about how they managed their time during the day.

While most respondents agreed that the survey was fun and easy to complete, some regional differences emerged between respondents in Washington, DC and those in Stamford, CT. In general, respondents in Connecticut were slightly more guarded in their attitudes toward the government and were more likely to report that they didn’t feel comfortable providing this kind of information to the federal government.

Without any prompting, several of the Washington respondents spontaneously commented that the questions were not intrusive, invasive, embarrassing, or awkward. Participants often chose the adjective “Interesting” to express their general reactions to the survey because they felt it gave them an awareness of how their time was spent. They felt that the content of the survey was reasonable, given the survey’s objectives.

*“I felt no pressure. It was non-threatening.”*

*“These questions will give a good idea of what I did and will elicit the kind of information you (BLS) wants.”*

In contrast, several of the Stamford respondents had negative top-of-mind reactions to the survey’s perceived intrusiveness. In short, they felt that the survey was an invasion of their privacy.

*“I’m a very private person, I don’t want the government asking who’s in my household...I don’t want Big Brother that close.”*

*“I’m leery about giving out personal information over the phone. It’s uncomfortable to give out personal information.”*

*“People in this area (Stamford) won’t participate willingly.”*

In fact, one Stamford woman refused to complete the diary during the phone interview beyond saying *“I got up at 7, went to work from 9 to 5, then spent quality*

*time with my daughter at home until I went to bed.”* However, this respondent was willing to complete the survey in a face-to-face interview. The respondent may have felt more reassured during a “mock personal visit” because she could see what the interviewer was recording. She may also have simply felt more comfortable talking with a “live” person.

### Confusing Questions

When asked if anything was confusing in the survey, several respondents felt that nothing was confusing or difficult. They often used the adjective *straightforward* to describe the survey. However, while respondents did not find the survey, itself, confusing, some reported it that it was strange to think about their day in very small increments of time. Respondents noted that it was challenging to reconstruct their day down to the required level of detail:

*“I felt the questions were trying to steer me into answers I couldn’t give, especially during that 6 a.m. to 7 a.m. hour. I don’t do any one thing for 5 minutes. I bounce back and forth between little things. None of them is for 5 minutes at a time.”*

*“Nothing was confusing or difficult, except that I don’t keep track of how I spend my time.”*

Eleven of 50 participants (22%) reported that recalling times when activities took place was difficult. Two respondents attempted to report their activities in general blocks of time, such as “...that took all morning” or “For the rest of the night.” When probed for more precise time estimates, these two respondents reported that it was difficult to affix a more specific duration to their activities.

*“I multitask so much that it’s difficult to put a time frame on what I had done.”*

*“How many minutes I spent on activities was a little difficult to remember.”*

Also, less structured days such as weekends were more difficult to recall than more structured weekdays.

*“Talking about a Sunday rather than a weekday makes it very difficult to remember what you did.”*

A few respondents felt that the summary question that asked them to identify activities that were done for their job or business was confusing. The question was a little difficult because they had to mentally review their entire day and then decide whether any other activities were work-related. This issue is discussed in more detail later in this report.

Although it was not confusing, a few respondents felt that the question, “*Who was in the room with you?*” was a little difficult, especially if there were a number of other people who were going in and out of the room instead of staying in the room the entire time.

Despite being told in the time diary instructions that, *“In order to code activities, I’ll need to know where you were and who else was with you,”* two respondents reported being surprised when asked about who was with them during each activity.

### Easy Questions

There was general agreement that all of the questions were quite easy overall, although no one identified any specific questions that were particularly easy.

*“Nothing was difficult...It was easy to recount my day.”*

There were several reasons why respondents felt that the questions were easy overall:

They were easy because respondents were recalling events that happened only the day before the interview.

*“It was easy because it was only yesterday. It would have been hard if you asked me what I did a week ago.”*

Respondents remarked that *time references*<sup>10</sup> made it easier to recall both their activities as well as the times associated with each activity. *Time references* occur when the interviewer periodically reports the time to the respondent during the telephone interview.

*“Time references helped me to remember what I was doing at a certain time: like it [when you said that it] was about this time when I was eating dinner.”*

Time references may also occur when respondents remind themselves or ask to be reminded of what they had said they were doing at a specific time.

*“I know I did not go to bed at 4:30 yesterday. Can you take me back to when I left the grocery store- what time was that? I might have left something out.”*

*“I know it is definitely not 1:30. I was not ready to leave the house until well after 2:00 because my wife was mad at me for not being ready at 1:30.”*

The specific interviewer questions and probes were helpful in triggering their recall of the previous day’s activities.

*“It was helpful to prompt me of the hour and to ask whether anyone was with me. This helped me remember better.”*

*“The questions made me focus on exactly what happened and helped me recall what I did.”*

---

<sup>10</sup> This term was volunteered by one respondent to refer to the interviewer practice of occasionally noting the time for the respondent - e.g., *“So, that takes to 10:15 AM. What did you do at 10:15?”*

The survey's structure, which required them to focus on activities in specific short periods of times, also made answering the questions easy.

*"The fact that it was so structured made me think of things that I forgot earlier."*

Respondents did not have any specific suggestions for how to make the survey any easier.

### Flow of the ATUS Interview

Without prompting, several respondents (7/50, 14%) spontaneously commented that the survey's "chronological" structure made sense and enhanced the flow of the survey. The chronological structure also made the survey seem very organized and straightforward. In addition, the chronological sequence was helpful in prompting respondents' recall of their activities throughout the day.

*"Going step-by-step helps you think back to what you did yesterday."*

Respondents also reported that the few minutes at the beginning of the phone call during which the interviewer read the introduction, updated the household roster and read the time diary instructions "warmed [them] up" and helped them feel more relaxed and comfortable about answering the questions.

While none of the respondents requested an example of a time diary report to help them determine the appropriate level of reporting detail, two respondents made comments specific to the introduction and the time diary instructions. One respondent did not feel as if the time diary instructions prepared her for the level of detail that was needed for this survey. During the telephone interview, she remarked that:

*"In the introduction, you just said that you were going to ask me about how I spent my time yesterday, from 4:00am yesterday morning to 4:00am this morning... I had no idea that you wanted to know that precisely how I spent my time."*

Another respondent was concerned about confidentiality and what was meant by the word "voluntary" in the introduction.

*"You said my identity would be kept confidential, but you asked for the names of people in my household. You said my participation was voluntary, but then you did not ask me if I wanted to participate."*

A few respondents (6/50, 12%) were concerned that the survey represented an inaccurate picture of how they spent their time because the previous day had been an "atypical" or "unusual" day for them. For example, some respondents who usually worked multiple jobs in a single day had only worked at their main job on the previous day. Consequently, their diary report was much easier and less complicated than normal. However, these same respondents agreed that if the previous day had been a "typical" day (i.e., a busier, more complicated day), then the survey would have accurately captured all aspects of their complicated day.

Other multiple jobholders expressed concern about the survey's restriction to single-day reporting. These respondents worked one job on weekdays and another on the weekends. They felt that the survey's selection of one day out of the week inadequately represented what it was like to be a multi-job holder.

Respondents were also concerned about the instruction to not report activities of less than five minutes. They felt that some important activities did not get recorded because these activities lasted less than 5 minutes. For example, an important work-related phone call did not get recorded because the call lasted only a couple of minutes.

Several of the Stamford respondents (6/14, 43%) and two Washington respondents raised the concern that "other people" might not willingly participate in this survey because some of the questions were too personal and/or were too detailed.

*"I understand the reason for these questions but others might think this is too personal. The interviewer must reassure them that this is purely for research."*

*"Some people might be scared to answer questions about extra jobs. If they do part-time work 'off the books' they wouldn't want to talk about this."*

*"Some people don't trust the government. They might be more open if an independent research company did the survey. But even then, people might still be suspicious of their motivation."*

## Rating Scales

*Note on Technique: Respondents used a six-point scale to rate how easy or difficult it was to remember their activities and to rate how confident they were in the accuracy of their answers. Key highlights from this exercise are summarized below.*

### Ratings: Ease/Difficulty

When defining the endpoints of the six-point rating scale, a “6” was associated with the following characteristics:

- The question was very easy and simple to answer;
- Respondents did not have to think about their answer; and
- Their answer was completely objective, not subjective.

At the other end of the rating scale, a “1” was associated with the following:

- The answer would have required much thinking, time and effort;
- Respondents had no recollection at all; or
- They had a very complicated day yesterday.

Table 6 summarizes the ease with which respondents could answer various questions included in the ATUS.

Table 6. Ease Ratings (N = 41, except where noted)

	Mean Rating (SD)	% rated “easy” or “very easy” <sup>11</sup>
The activities you did yesterday	5.29 (0.93)	83%
The times you did each activity	4.56 (1.07)	56%
Who was in the room with you	5.71 (0.51)	98%
Who accompanied you to different activities	5.85 (0.36)	98% <sup>12</sup>
The activities done for your MAIN job or business	5.69 (0.89)	90%
The activities done for your OTHER job or business (n = 10)	5.87 (0.35)	100%
The activities for which you were paid or expect to be paid	5.58 (1.01)	88%

*The activities you did yesterday* usually received a 6. Remembering yesterday’s activities was very easy because respondents could remember exactly what they did yesterday. When this question received a lower rating (a 3, 4, or 5 for example),

<sup>11</sup> Refers to ratings of 5 or 6 on a 6-point scale.

<sup>12</sup> Only 37 of 47 participants completed rating scales due to time constraints.

respondents indicated that remembering what they did yesterday was a little difficult because:

- They had a very busy day and had trouble reconstructing all of the activities they did; or
- They got confused with activities done the day before yesterday, i.e., they made telescoping errors.

*The times that you did each activity* received more diverse ratings than any other question. This was the most difficult question to answer overall for the following reasons:

- Respondents did not pay attention to the clock during the previous day;
- They had to “fudge” on some times by 5 or 10 minutes;
- They had trouble reconstructing how much time each activity took; and
- They knew what they had done during a large block of time but not how long it took for each activity within that block of time.

*Who was in the room with you* usually received a 6 with many respondents indicating that this was one of the easiest questions to answer because “*I’m either alone or I’m not.*” Telecommuters noted that answering this question was easy but were more likely than other respondents to assign a rating of 5. Telecommuters reported that where and with whom they work could change on a daily basis making it more difficult to respond to this question.

*Who accompanied you to different activities* also usually received a 6, mainly because the presence of another person was salient and made some activities more memorable. Telecommuters indicated that their changing work environment also made it a little difficult to remember who accompanied them to various activities.

*The activities that were done for your MAIN job or business* received virtually all 6’s. Respondents reported that they were very focused on their main job and that they automatically know which activities are work-related. Some multiple jobholders found this question slightly harder to answer because their multiple jobs were very similar to one another.

*The activities that were done for your OTHER job or business* (if applicable) also received mostly 6’s because respondents knew exactly which activities were done for each job. As noted for main jobs, it was a little harder for respondents who had two jobs that were very similar in nature, especially if they bounced back and forth between activities for two jobs throughout the day. One respondent whose hobby was investing was unsure whether to include investing-related activities in his response to this question. Although he considers investing a hobby, he acknowledged that investing was somewhat like a job in that it was a source of considerable income for him. This respondent identified himself as a multiple jobholder in response to recruitment screening questions. He included his time spent looking at stocks online as an activity done for his OTHER job.

The activities for which you were paid or expect to be paid usually received a 6. However, some respondents were initially confused by this question. They wondered if

this question referred to only “work-related” activities or whether it also included income-producing activities in general. For example, the respondent was decided to count his investment activities as activities done for another job also indicated that those activities were ones for which he expected to be paid. Similarly, a respondent who did some maintenance work on a rental property considered those activities ones for which he expects to be paid.

Ratings: Confidence/Accuracy

Respondents defined the endpoints of the confidence scale as, a “6” meant that:

- They were very confident,
- Absolutely certain, and
- Completely positive of their answers.

In comparison, a “1” was a complete guess, indicating that respondents did not have a clue about their answer.

Most items received a “6” in terms of respondents’ confidence of their accuracy and no items received a rating of “1.” Respondents were very confident of their answers for these reasons:

- They had a simple, straightforward day yesterday;
- They did the same thing every day;
- They were very organized;
- They had certain milestones regarding times for their activities;
- They had a good memory; and
- It was just yesterday so things were still fresh in their mind.

Table 7 summarizes respondents’ confidence ratings.

Table 7. Confidence ratings (N=41, except where noted)

	Mean Rating (SD)	% rated “confident” or “very confident” <sup>13</sup>
The activities you did yesterday	5.65 (0.70)	90%
The times you did each activity	4.80 (1.16)	63%
Who was in the room with you	5.83 (0.38)	71%
Who accompanied you to different activities	5.85 (0.43)	100%
The activities done for your MAIN job or business	5.87 (0.41)	95%
The activities done for your OTHER job or business (n = 10)	5.88 (0.34)	100%
The activities for which you were paid or expect to be paid	5.74 (0.64)	90%

<sup>13</sup> Refers to ratings of 5 or 6 on a 6-point scale.

*The activities you did yesterday* usually received a 6. Respondents indicated that the survey's focus on yesterday contributed to their feelings of confidence because the activities were still fresh in their mind. Respondents who reported about particularly busy days tended to be slightly less confident in the accuracy of their reports.

*The times that you did each activity* received more diverse ratings. Respondents tended to be somewhat less confident in the times for the following reasons:

- They did not look at their watch;
- They did not have specific milestones by which to judge the time spent on an activity;
- They had mostly unstructured activities with no set time for doing them;
- They did not have a good memory; and
- They had to guess a little about the times so their times could be off by several minutes.

*Who was in the room with you and who accompanied you* received nearly all 6's. Respondents' confidence was related to the ease with which they could recall this information. Confidence ratings were lower for those activities during which people were in and out of the room or for telecommuters who work with different people each day.

*The activities that were done for your MAIN job or business* generated virtually all 6's because respondents knew precisely which activities were work-related.

*The activities that were done for your OTHER job or business* also generated mostly all 6's. Multiple jobholders were very confident in the accuracy of their reports because they either worked different jobs on different days of the week or clearly distinguished between their main job and their other job.

*The activities for which you were paid or expect to be paid* received mostly all 6's. However, some respondents thought this question was a little difficult at first. They tended to think longer before responding to this question, and thus gave it slightly lower ratings because they were not sure if they were answering it correctly. Confidence was largely affected by respondents' uncertainty about how to interpret the question. Once they had settled on an interpretation, they were confident in their ability to identify activities done for pay or with the expectation of payment.

## Interpretation of Summary Questions

### "Other than the times you said you were at work..."

There were mixed opinions regarding whether this question was confusing. Twenty-four of 33 respondents (73%) who were asked this question did not find it confusing because they understood it to mean anything work-related, even if the activity was not done physically "at work" (i.e., in their company's office or home office). In general, these respondents found it easy to determine which activities were done for their jobs or businesses. When asked what went through their minds as they decided how to answer this question, they said things like:

*"Things I do that I get paid for."*

*"Activities that were done to catch up on work that was not finished at work."*

Others, especially those who worked in places other than an office, found it confusing at first because they were put off by the phrase *"Other than the times you were at work."* Of the 33 respondents who were asked this question with the phrasing *"Other than the times you were at work,"* 9 (27%) reported that they found the question confusing. To make this more understandable, they suggested dropping this phrase and re-wording the question as follows: *"When you were at home with your family, were you doing work-related things too?"*

One respondent, a freelancer, had difficulty with this question because she sees her work life and her personal life as closely intertwined.

*"I think that's a silly question. You cannot divorce what you do from other aspects of your day. I am a designer and I am always looking for new things or ideas."*

The same respondent suggested that self-employed or freelancing individuals might find it difficult to separate their work from their nonwork activities, primarily because work activities are pervasive.

*"When it's your business...you're always working on it."*

However, other self-employed and freelance respondents did not echo this sentiment.

Two other respondents had somewhat negative reactions to this question. One reported feeling somewhat pressured to report additional work activities and the other, who was interviewed on a Monday about a Sunday, was surprised to be asked about work activities occurring on what she thinks of as a religious day.

*"I thought you were trying to get me to think of more maybe because I hadn't done enough."*

*"I thought it was odd that you asked if I did work on a Sunday and I don't go to work on religious days."*

“Were any of the activities you mentioned done for your MAIN job or business?”

Respondents identified their main job as the one that generated the most income for them. To answer this question, they simply thought through their previous day selected the activities related to that job.

Respondents reported work activities such as calling clients or doing layout in response to this question. However, they also included some activities like driving to work, getting gas, and ironing their clothes that were done for work but were not, of themselves, work activities. Respondents argued that they would not have undertaken these activities if they had they not been necessary for their main job.

*“I wouldn’t iron my clothes if I wasn’t going to work that day.”*

Similarly, one respondent included housecleaning as an activity related to her main job or business. The respondent reported that while her house needs to be cleaned at some point, she specifically cleaned her house yesterday because she was entertaining work-related guests at home that evening. One respondent included golfing in his response to this question because he considered golfing a “relationship-building” activity that is essential to his ability to conduct his business.

Respondents identified a number of activities that they thought exemplified activities that are done for one’s job or business. These activities are listed in Table 8. All were work-related activities, even though they were not done physically at work/in their office:

Table 8. Activities done for job or business

<b>“Things I do for my job or business”</b>	
<p><b>Administrative</b></p> <ul style="list-style-type: none"> <li>▪ Faxing materials</li> <li>▪ Handling invoices and deposits</li> <li>▪ Bookkeeping</li> <li>▪ Handling mail order items</li> </ul> <p><b>Communication</b></p> <ul style="list-style-type: none"> <li>▪ Checking e-mail or voice mail</li> <li>▪ Making Phone calls</li> </ul> <p><b>Social</b> (Talking with coworkers or clients in a social environment)</p> <p><b>Travel</b></p> <ul style="list-style-type: none"> <li>▪ Driving and Commuting</li> <li>▪ Business travel</li> </ul> <p><b>Freelance</b></p> <ul style="list-style-type: none"> <li>▪ Cleaning business equipment</li> <li>▪ Shopping for supplies or equipment</li> <li>▪ Painting</li> <li>▪ Photography</li> <li>▪ Wrapping packages</li> <li>▪ Thinking about project design</li> </ul>	<p><b>Research and Writing</b></p> <ul style="list-style-type: none"> <li>▪ Reading magazines or newspapers</li> <li>▪ Internet or library research</li> <li>▪ Writing (articles, books, reports or screenplays)</li> <li>▪ Thinking about presentation of reports or projects</li> </ul> <p><b>Academic</b></p> <ul style="list-style-type: none"> <li>▪ Contact with parents, principal and other administrators</li> <li>▪ Preparing lesson plans</li> <li>▪ Attending conferences and workshops</li> <li>▪ Grading papers</li> </ul> <p><b>Other</b></p> <ul style="list-style-type: none"> <li>▪ Going to bank, post office, gas station or library</li> <li>▪ Attending computer training classes</li> <li>▪ Going to meeting</li> <li>▪ Organizing carpool</li> </ul>

During the debriefing, some respondents realized that they had not reported certain activities as work-related during the initial telephone survey (e.g., time spent in the car, and conference calls and phone calls made from the car to clients or to co-workers). To help respondents capture all of these work-related activities during the survey, they suggested that the interviewer probe on specific activities during the time diary. They suggested the following probes:

*“Do you use your cell phone while you’re driving and are the calls for work or personal?”*

*“Do you use electronic devices like a laptop or Palm during your commute?”*

Respondents who did not report any additional activities in response to this question said that their only work-related activities were conducted in their company’s office. However, they indicated that if they had brought paperwork home or had done any preparation at home for an upcoming meeting, they would have included those kinds of activities in response to this question.

“Were there any activities that you were paid for or expect to be paid for?”

There were mixed impressions regarding whether this question was clear and easy to understand. Respondents who found the question easy to understand readily provided examples of activities like babysitting or transcribing tapes, which were not related to their main job but for which they receive income. Other respondents were confused by this question. Their initial interpretation of the question was that the word “*activities*” implied things they did as a hobby or pastime, not activities that were “work” related (such as the examples cited below). Others wondered if they should include a hobby like investing since it generated income, or church-related activities for which they received compensation in their answer to this question. Respondents also had difficulty interpreting the phrase, “*expect to be paid.*” Their uncertainty centered on whether they should include activities for which they “might” get paid (i.e., activities when future payment was uncertain or was not guaranteed.) Examples of the kinds of activities respondents reported as being done for pay are provided in Table 9.

Table 9. Activities done for pay.

<b>“Things I do for pay”</b>	
<p><b>Academic</b></p> <ul style="list-style-type: none"> <li>▪ Lesson plans</li> <li>▪ Reading</li> <li>▪ Talking with colleagues</li> <li>▪ Getting strategy</li> <li>▪ Talking with principals and administrators</li> <li>▪ Talking with parents or students</li> </ul> <p><b>Activities related to Job or Business</b></p> <ul style="list-style-type: none"> <li>▪ Doing prep work the night before a meeting</li> <li>▪ Thinking about clients’ projects</li> <li>▪ Transcribing tapes</li> <li>▪ Activities related to producing a product</li> </ul> <p><b>Administrative</b></p> <ul style="list-style-type: none"> <li>▪ Doing a mailing to clients</li> <li>▪ Preparing and sending out invoices</li> <li>▪ Verifying addresses</li> </ul> <p><b>Communication</b></p> <ul style="list-style-type: none"> <li>▪ Making follow-up calls for new business</li> <li>▪ Checking email and faxes</li> </ul>	<p><b>Honing talents or skills</b></p> <ul style="list-style-type: none"> <li>▪ Attending a training seminar</li> <li>▪ Practice time for musicians</li> </ul> <p><b>Informal Services</b></p> <ul style="list-style-type: none"> <li>▪ Helping someone move</li> <li>▪ Babysitting</li> <li>▪ Cutting a neighbor’s grass</li> <li>▪ Household chores for family member</li> </ul> <p><b>Travel</b></p> <ul style="list-style-type: none"> <li>▪ Driving to visit clients</li> <li>▪ Travel time for business</li> </ul> <p><b>Other</b></p> <ul style="list-style-type: none"> <li>▪ Working occasionally as a waitress or hostess</li> <li>▪ Preparing tax returns</li> <li>▪ Part-time work</li> <li>▪ Playing Lotto and winning</li> <li>▪ Doing work “under the table” that was not reported for taxes</li> </ul>

“Do you expect to be paid for all the time you spend on activities related to your job or business?”

All of the participants in this study said that they did not expect to be paid for *all* of the time they spent on activities related to their job or business.

*“Well, there are things like making up a new filing system that I have to do for work that I can’t really bill anyone for.”*

Some respondents made a distinction between those work-related activities which are *expected* of you as an employee, and those which are related to your job or business,

but you are not necessarily *expected* to do, and therefore should not expect compensation. Activities that are outlined in your job description (i.e., those activities which are *expected* of you as an employee) are activities for which you should *expect* to be paid.

*“Only activities you are told to do or are required to do should you expect to be paid for.”*

Some respondents said that they thought a question about their payment expectations implied that the interviewer was interested in what they thought they ought to be paid for beyond what they were already being paid.

*“Going to parties with coworkers is part of my job and regular salary, but I’m not paid anything extra for them.”*

“How are the activities that you do for pay different from the activities that you do for your job or business?”

Three respondents reported social activities such as going out to dinner and going out for social ‘happy hour’ as things that they do for their job that are not activities they do for pay. For salaried workers, the time of day during which work activities were done distinguished work related activities from activities done for pay. In their minds, if they worked on something *during* the regular workday, they considered those activities as done for the job *and* done for pay. On the other hand, if they worked on something *after* or outside of the regular workday, they considered those activities as done for the job but not done for pay.

*“I’m a part-time teacher, I often put in hours beyond my work schedule, but I don’t get paid for this. I also work at home, which I don’t get paid for.”*

Respondents further distinguished between activities that are done for pay but not for one’s job. Income-generating activities that are done on the side could be done for pay. In comparison to work-related activities, these activities are not done for one’s job or business.

*“Activities for pay may be something extra...not within the structure of the 8 hour workday.”*

To summarize, respondents made the following distinctions between activities that are done for the job and those that are done for pay:

- All activities that are done for the job during regular work hours are done for the job and done for pay.
- Activities that are done for the job outside of regular work hours are only done for the job and are not done for pay.
- Activities that are not done for the job but still generate income are only done pay.

To make this question easier to understand, one respondent suggested the following wording: “*What else do you do to make money?*” This question left it open-ended for both work-related activities and for hobbies or personal interests that generate income. The interviewer could then ask the respondent if any of these moneymaking activities were done yesterday?

“How does the question change if instead of asking you about activities you were paid for or EXPECT to be paid for, I ask you about activities you were paid for or will be paid for?”

For most respondents, there was little difference between the phrases “expect to be paid” and “will be paid”. When probed, respondents agreed that “will be paid” seems more definite than “expect to be paid” which could be interpreted as “hope to be paid”.

*“It’s definitive- will be paid; I may or may not get paid if you say expect to be paid.”*

*“If a company spells out something you are to do, then you will be paid. But if you do something for your own business, you might hope to be paid.”*

*“Will be paid is guaranteed. When I expect to be paid, no one has guaranteed that they will pay me.”*

### Freelancers

Freelancers were recruited for this study because the question about activities that are done for pay is most likely to apply to them. A series of questions designed to determine the criteria the freelancers would use in responding to a question about expectations of payment was included in the debriefing.

### How do you know if something you produce will sell?

The level of work experience for freelancers in this study ranged from 1 to 30 years, and respondents expressed different opinions about how important experience is in knowing whether or not something you produce will sell. Some freelancers thought that experience did not play an important role in knowing whether their products would sell, and that they did not work on projects for the sole purpose of selling a product. For other freelancers, although they still worked even if they did not have a specific assignment, they nonetheless expected to be paid for the work efforts they put into producing a product. Others only worked on commission and had already ensured payment before beginning the project.

*“I don’t know if it will sell, although I make them expecting them to sell.”*

*“I never produce on spec.”*

### **Activity-by-Activity Review**

Most respondents agreed that the diary was an accurate picture of how they spent their time on the previous day.

*“It captured all the ‘work’ I do and it picked up how I spent my time.”*

As they reviewed their diaries, respondents were probed about certain activities to verify whether these activities were work-related. Respondents identified three classes of activity for which probing during the time diary should be used to ensure accurate reporting of work-related activities:

- Computer use<sup>14</sup>: During the debriefing, one respondent retrospectively realized that some of the time that he spent on the computer at home was for work and some was personal use. He did not remember to report his computer use in response to the work-related summary question. He suggested that there should be a specific and immediate follow-up question probing whether computer time was for work or personal reasons.
- Reading:<sup>15</sup> Respondents suggested that reading be probed during the time diary to determine whether the respondent was reading for work or for personal enjoyment.
- Traveling: Respondents indicated that two kinds of travel could be work-related. Respondents specifically mentioned commuting and driving to meetings as work-related travel. They also argued that if they often do things like make cell phone calls or work on their computers during their commute. Respondents suggested that they be asked about cell phone use and computer use while commuting. They further suggested that if the respondent reports using a cell phone or a computer while traveling, the interviewer ask a question to determine if either activity was work-related.

Respondents made an interesting distinction between outgoing and incoming work-related travel. They suggested that driving to a meeting usually was work-related because they were thinking about the meeting during their drive. However, most felt that driving home from the meeting or from work was not work-related.

While respondents felt that the diary accurately captured all of their previous day’s activities, a few expressed concern because the diary did not reflect a typical day. They suggested that typical days are busier, include more work-related activities, involve work with more than one client, include multiple meetings or work at more than one job. They noted that the survey’s current design would have elicited all of these activities had they occurred; however, respondents acknowledged that completing the survey might have been harder and more time-consuming to do.

---

<sup>14</sup> Due to interviewer error, computer use was not probed during the administration of the time diary. In full production, computer use is probed for purpose of use.

<sup>15</sup> Due to interviewer error, reading was not probed during the administration of the time diary. During full production, reading is probed to determine if it was undertaken for work or personal interest.

## Secondary work activities

At the conclusion of the debriefing, respondents were instructed as follows:

*“You may have noticed during the telephone interview, we only collect information about the MAIN activity that people are doing. We realize, however, that sometimes people “multi-task” or do more than one thing at a time. I’d like you to take one more look at your diary from yesterday. I’d like you to go through the diary and pick out all the times that you were working, even if the main activity that you were doing was something else. (For example, yesterday morning while I was eating breakfast I was also reading a report for work. My main activity was eating breakfast but I was also working).”*

Three respondents reported thinking about work and one respondent reported talking about work as secondary activities that occurred while they were engaged in the following primary activities:

- Working out on treadmill
- Showering
- Driving to exercise class
- Packing up office
- Traveling as a passenger in the car back home

The table below lists other combinations of simultaneous activities that respondents reported in this study:

SECONDARY WORK ACTIVITIES	
Primary	Secondary
Internet research	Waiting on telephone to report DSL problem to customer service (DSL line used on work computer at home)
Eating dinner with husband	Talking about work
Eating lunch	Reading newspaper
Reading lesson plan book (work)	Writing lesson plans
Taking telephone calls	Writing date for work calendar
Cooking dinner	Waiting/taking telephone calls for business
Scanning Newspaper	Arranging flower baskets
Listening to radio	Working on flower baskets

### **Alternative Wordings**

Most respondents did not have any suggestions for how to improve the wording of the questions. A few respondents offered suggestions for improvement after realizing that they had omitted some work-related activities in response to one of the summary questions.

Respondents offered the following suggestions:

- As noted above, respondents felt that selective probing of reading, computer use and cell phone use would ensure these activities were not omitted from respondents' reports of work-related activities. They thought that simply asking "*Was that reading time for work or was it for personal reasons?*" and "*Was that computer time for work or for personal reasons?*" and "*Were your cell phone calls for work or for personal reasons?*" would suffice.
- Respondents suggest that traveling be probed specifically because respondents are often "working" when they are traveling for business.
- Ask "*What other paid activities are you doing during your personal time*" because just saying "*other activities*" implied the things they did for fun.
- Some suggested substituting the phrases "*time for work*" or "*work-related activities*" instead of using the phrases "*being at work*" or "*at work.*" To some, the phrase "*at work*" literally meant at their company's office. However, others, including self-employed respondents, did not have a problem with understanding the broader implications of the phrase "*being at work.*"
- Self-employed respondents suggested asking what activities generated money versus activities that did not generate money, to get at what really was work-related.
- Multiple-job holders suggested that the survey should ask respondents specifically whether they had more than one job and/or whether they were self-employed.
- Another multiple-job holder suggested asking about an "*average day*" instead of just asking about yesterday because yesterday was not a typical day. Every day was different depending on how many of their jobs they worked that day.
- Telecommuters suggested that the survey should use the word "*telecommute*" specifically. At the beginning of the interview, respondents should be asked if they telecommute.
- A final suggestion offered in Stamford was to reassure respondents of the confidentiality and security of the information collected in the survey.

## **SUMMARY AND RECOMMENDATIONS**

### **SUMMARY**

Based on the debriefing interviews in Washington, D.C. and Stamford, the survey appears effective in eliciting a detailed, accurate picture of how Americans spend their day. In addition to providing the desired information, a strength of the survey is that it is fast and easy for most respondents to complete. Furthermore, respondents feel very confident about the accuracy of their answers, except for their estimates of the times spent for activities because these estimates may be off by several minutes. The chronological format of the specific questions helped stimulate respondents' recall of their many activities throughout the day.

The survey is perceived by non-Washingtonians as somewhat intrusive. Some of the Stamford respondents were uncomfortable with the content of the survey because they considered questions about how they spend their time and with whom an invasion of their privacy. While this concern did not emerge among the DC-area respondents, some suggested that "other people" might not like answering these very detailed questions about their daily lives. To alleviate concerns about privacy, interviewers should reassure respondents about the privacy and confidentiality of the information at a few different points throughout the interview. Interviewers should be prepared to explain the purpose of the survey and the uses of its data.

Activities that can be both work-related and/or personal (such as spending time on the computer at home or using the cell phone while commuting), should be probed within the context of the diary rather than waiting for respondents to identify them as such in response to the summary questions. Activities that are both work and personal are likely to be omitted from responses to the summary questions even though respondents feel that they can accurately ascertain how much of the time spent in one of these combined work/personal activities is attributable to work. On the surface, respondents may regard these activities as being generally unrelated to work, yet they can attribute some time to work activities that occurred within these general activities when forced to think about the activities in detail.

To uncover other work activities conducted outside the formal work setting, respondents thought it might be helpful to rephrase the question as "*Other than the times you were physically located in your place of work, were any of the activities you mentioned done for your job?*"

Consideration should be given to modifying the question about whether respondents engaged in other activities for which they were paid or expect to be paid. This question should be worded to clarify that this question refers to both "personal" activities like hobbies and crafts and to "work-related" or other "income-generating" activities.

### **OUTSTANDING ISSUES AND DIRECTIONS FOR FUTURE RESEARCH**

The findings from this study highlight a number of outstanding issues that need to be addressed prior to full production. The ATUS Questionnaire Design Team (QDT) has proposed resolutions to some of the issues raised in this report. QDT's proposed resolutions should be included in future testing efforts to evaluate their effectiveness in ameliorating some of the problems highlighted in this report.

### **Issues Addressed by QDT**

Respondents in this study reported that answering questions about who was in the room with them was difficult when people were “in and out of the room.” QDT recommended that when respondents express uncertainty about whom to include as “in the room,” ask them, “Was [this person] in the room with you for at least half the time that you were doing [activity]?”

Respondents in this study also recommended probing on selective activities in the time diary to ensure the accurate collection of all work-related activities. Specifically, respondents recommended probing on computer use, reading, telephone calls and for simultaneous work activities that occur during travel. Currently, computer use and reading are probed to elicit additional details that will ensure coding in the appropriate categories. Telephone calls and simultaneous work activities while traveling are not currently being probed.

### **Issues Related to Help Screens and Frequently Asked Questions**

Two issues related to help screens and frequently asked questions (FAQs) emerged in this study. First, respondents from Stamford, CT, in particular, thought that the survey topic was somewhat intrusive and were concerned about the confidentiality of the information they were providing.

A help screen that explains the purpose of the survey is needed. This screen should explain data confidentiality in language that is clear and easily understood by respondents.

One respondent refused to provide information over the phone but was willing to complete the survey in a face-to-face interview. This respondent may be similar to Current Population Survey (CPS) respondents who prefer a personal visit for all 8 interviews. However, the high costs of a field component preclude personal visits for ATUS respondents.

Respondents in this study were also concerned with the typicality of their reference day. This concern has arisen in prior studies and needs to be addressed. It is recommended that the help screen be developed that includes two relevant pieces of information: First, respondents may benefit from knowing that most respondents consider their reporting days “atypical.” Second, it may also be helpful to explain to respondents that the information from the survey will be published in terms of time spent per week in various activities. Thus, the typicality of any individual day is unlikely to affect the estimates. This help screen should include a script specific to multiple jobholders who may be concerned that their reporting day is not representative of their usual multi-job schedule.

### **Issues Related to Concepts of Work**

The summary questions used in this study were intended to measure two types of activities that are related to work. The first summary question that asks, “Were there any (other) activities that were done for your job or business” was intended to measure work done from nonstandard environments or during nonstandard hours.

Respondents in this study interpreted this question more broadly than was intended by QDT. Respondents included work preparation activities, such as ironing one's clothes, as well as relationship-building activities such as socializing with clients or prospective clients.

A conceptual definition is needed of activities done for one's job or business. Decisions are needed for the design of the data collection instrument and for the coding of activities identified as done for one's job or business. One option may be to exclude both work preparation activities and relationship-building activities from published estimates of time spent working. Provided that individual activities can be identified as "done for the job," analysts would be able to include these activities in their analyses.

The second summary question that asks, "Were there any (other) activities that you were paid for or expect to be paid for?" was intended to measure informal income-generating activities such as crafts that are sold on the side. Respondents interpreted this question to include a broader class of income-generating activities such as work done on a rental property or time spent investing.

A conceptual definition is needed of activities done for pay. Decisions are needed for the design of the data collection instrument and for the coding of activities identified as done for pay or with the expectation of payment. One option may be to code all activities identified as "done for pay" but not "done for the job" as "other income generating activities." The current lexicon includes this code and it could be assigned as a hardcode during data collection.

### **Recommendations for Future Research**

Unless survey designers wish to broaden their conceptualizations of work activities to match respondents' interpretation of the paid work summary questions, additional testing is required. Testing efforts should focus on refining both questions so that respondents understand that work preparations such as ironing clothes should not be included in their responses to the question about activities done for their jobs. Similarly, it should be made clear to respondents that speculative activities like trading stocks or gambling should not be included in response to the question about activities done for pay.

To help clarify the intent of these questions, the following question wording changes are recommended. The phrase "Other than the times you said you were at work" should be dropped from the summary question that asks respondents to identify activities done for their job or business. The emphasis on location in this phrase (i.e., "at work,") is confusing to respondents who work from nonstandard work environments. This phrase should be replaced with "You told me about your work activities yesterday." Examples of the kinds of activities that should be omitted from respondents' reports should be provided in the question text.

***(You told me about your work activities yesterday). Were any of the (other) activities you mentioned done for your job (or business)? Please do not include things like getting ready for work or commuting.***

If survey designers want to include income-generating activities beyond hobbies and crafts sold on the side, then the read if necessary that is currently included in the summary question about activities done for pay should be removed. To ensure that respondents restrict their reports to activities for which future pay is certain or guaranteed, replace the phrase “expect to be paid” with “will be paid.” Lastly, the question text should make it clear that activities that are done during paid leave should not be included in response to this question.

***Were there any activities that you were paid for or will be paid for? Please do not include any paid time-off.***

Respondents suggested that activities done for one’s job and activities done for pay are not mutually exclusive. The question wording tested in this study treated them as separate categories of activity and respondents could not report the same activity as done for their job and done for pay. Respondents also suggested that there is a distinction between the activities that are done both for one’s job and for pay; and those that are done either for one’s job or for pay. Respondents indicated that activities that are listed in one’s job description or that comprise one’s job are those activities that they would identify as done for the job and for pay. Work-related activities are done for one’s job but are not done for pay and usually occur outside of one’s regular work hours. Lastly, activities that are done for pay but are not done for one’s job are usually informal income-generating activities associated with either a side business or an incidental source of income.

Selective probing of telephone calls to identify simultaneous work activities should be implemented. Work-related telephone calls could be coded as an activity “done for the job.” Consideration should be given to selective probing of travel to obtain estimates of secondary work activities. Implementation of selective probing for simultaneous work activities would necessitate redesign of the data collection instrument.

Future testing should implement QDT’s decision for determining who qualifies as “in the room” when people are “in and out.” In response to requests for clarification, interviewers should be trained to ask, “Was [this person] in the room for at least half of the time that you were doing [this activity]?”

## **REFERENCES**

Stinson, L. (2000). Internal Report. Findings from Cognitive Testing

## APPENDIX A: ATUS MOCK INTERVIEW PROTOCOL

### 1. INTRODUCTION

I'm [interviewer name] from the Bureau of Labor Statistics. We are conducting a survey on how Americans spend their time. This information will help policy-makers understand how Americans balance work, family, and other demands in our fast-paced society.

Your participation in this survey is voluntary. The Bureau of Labor Statistics will use the information for statistical measures only and will keep your identity confidential. The interview usually takes between 20 and 35 minutes.

### 2. ROSTER UPDATE

Before we begin, I would like to get some background information about your household.

1. What are the names of all persons living or staying in your home? Start with the name of the person or one of the persons who owns or rents your home.

Line #	First Name	Last Name	Sex	Relation to Ref. Person (line # 1)	Date of Birth	Age
1						
2						
3						
4						
5						
6						

2. We would also like to identify any time you spent with your own children under the age of 18 who are not currently living in your household. Do you have any children under 18 who do not live with you?

- Yes - Go to 3.
- No - Go to Time Diary Instructions

3. What are their names? (Get complete roster update)

Line #	First Name	Last Name	Sex	Relation to Ref. Person (line # 1)	Date of Birth	Age
1						
2						
3						
4						

**3. TIME DIARY INSTRUCTIONS**

Now I'd like to find out how you spent your time yesterday, [designated day] from 4:00 in the morning until 4:00 am this morning. For each activity, please try to tell me, as accurately as you can, how much time you spent doing it. In order to code activities, I'll need to know where you were and who else was with you.

(If we get to times you spent working for pay, just tell me what time you started working and what time you stopped.)

There is no need to report any activities that take less than 5 minutes, and if any activity is too personal, there is no need to even mention it.

**4. SUMMARY QUESTIONS**

*Interviewer check items:*

- a) Is the respondent a multi-job holder?
  - Yes (follow MJ question sequence)
  - No
  
- b) Does the respondent work in a family business or farm?
  - Yes (follow SE question sequence)
  - No
  
- c) Is the respondent both a multi-job holder and working in a family business or farm?
  - Yes (follow MJ/SE question sequence)
  - No
  
- d) If all interviewer check item responses = "No", follow REG question sequence.

Lead-in for all sequences:

Because so much of our time is spent working, I'd like to ask you a few questions to make sure that this survey doesn't miss any of your work activities.

REG question sequence

*Interviewer check item:*

Did the respondent report working or going to work in the time diary?

- Yes - use parenthetical
- No

REG 1 (Other than the times you said you were at work) Were any of the activities you mentioned done for your job?

- Yes - Go to REG2
- No - Go to REG3

REG 2 Which ones?

(Enter 1 in the "For Job?" column for each activity mentioned).

REG 3 Were there any other activities that you were paid for or expect to be paid for? READ IF NECESSARY: These could include things like crafts that you sell on the side.

- Yes - Go to REG4
- No - Go to END

REG 4 Which ones?

(Enter 1 in the "For Pay?" column for each activity mentioned).

END Those are all my questions. Thank you for your time.

MJ question sequence

*Interviewer check item:*

Did the respondent report working or going to work in the time diary?

- Yes - use parenthetical
- No

MJ 1 (Other than the times you said you were at work) Were any of the activities you mentioned done for your MAIN job?

- Yes - Go to MJ2
- No - Go to MJ3

MJ 2 Which ones?

(Enter 1 in the “For Job?” column for each activity mentioned).

MJ 3 Were any of the activities you mentioned done for your OTHER job?

- Yes - Go to MJ4
- No - Go to MJ5

MJ 4 Which ones were done for your OTHER job?

(Enter 2 in the “For Job?” column for each activity mentioned).

MJ 5 Were there any other activities that you were paid for or expect to be paid for? READ IF NECESSARY: These could include things like crafts that you sell on the side.

- Yes - Go to MJ6
- No - Go to END

MJ 6 Which ones?

(Enter 1 in the “For Pay?” column for each activity mentioned).

END Those are all my questions. Thank you for your time.

SE question sequence

SE 1 (Other than the times you said you were at work) Were any of the activities you mentioned done for your job or business?

Yes - Go to SE2

No - Go to SE3

SE 2 Which ones?

(Enter 1 in the "For Job?" column for each activity mentioned).

SE 3 Were there any other activities that you were paid for or expect to be paid for? READ IF NECESSARY: These could include things like crafts that you sell on the side.

Yes - Go to SE4

No - Go to END

SE 4 Which ones?

(Enter 1 in the "For Pay?" column for each activity mentioned).

END Those are all my questions. Thank you for your time.

MJ/SE question sequence

- MJ/SE 1 (Other than the times you said you were at work) Were any of the activities you mentioned done for your MAIN job or business?
- Yes - Go to MJ/SE2
  - No - Go to MJ/SE3
- MJ/SE 2 Which ones?
- (Enter 1 in the “For Job?” column for each activity mentioned).
- MJ/SE 3 Were any of the activities you mentioned done for your OTHER job or business?
- Yes - Go to MJ/SE4
  - No - Go to MJ/SE5
- MJ/SE 4 Which ones were done for your OTHER job?
- (Enter 2 in the “For Job?” column for each activity mentioned).
- MJ/SE 5 Were there any other activities that you were paid for or expect to be paid for? READ IF NECESSARY: These could include things like crafts that you sell on the side.
- Yes - Go to MJ/SE6
  - No - Go to END
- MJ/SE 6 Which ones?
- (Enter 1 in the “For Pay?” column for each activity mentioned).
- END Those are all my questions. Thank you for your time.

## **APPENDIX B: STUDY 1. COGNITIVE INTERVIEW PROTOCOL**

### **1. GENERAL REACTIONS**

- 1) The first thing I'd like to do is to get your general reaction to the survey.  
What was it like for you to complete this survey?
- 2) Were there questions that you found particularly difficult or confusing?
  - (1) If so, what were they?
  - (2) What made them difficult?
  - (3) How might we improve them?
- 3) Were there questions that you found particularly easy?
  - (1) If so, what were they?
  - (2) What made them easy?
- 4) Were the instructions sufficiently clear?
  - (1) If not, why not?
  - (2) What could we do differently?
- 5) Did the questionnaire seem to flow smoothly?
  - (1) If not, why not?
  - (2) How about the transition near the end, when we switched from talking about what you did yesterday to talking about times you spent working?
  - (3) What could we do differently to improve this transition?
- 6) Did you have any other general reactions to the content of the questionnaire, or to the way it was administered?
- 7) What about other people...how do you think they'll react to this survey?

## 2. RATING SCALE QUESTIONNAIRE

Okay, I think I have a good sense of your overall impression of the survey. Now, let's take a look at two specific aspects of the survey. First, we're interested in how easy or difficult it was for you to remember the things that you told me about. I'd like you to use this 6-point scale to rate how easy or difficult it was for you to remember different things that I asked you about on the phone. For example, the first question asks you to rate how easy or difficult it was to remember 'the activities that you did yesterday?' If you had a very difficult time remembering these activities, you would circle '1'; if you found remembering these activities was very easy, you would circle '6'.

The second set of questions asks you to rate how confident you are in the accuracy of the information you reported. Please spend a few minutes filling out each questionnaire, and then we'll talk a bit about your responses.

Please use the rating scale below to describe your experience in the Time Use Survey.

How easy or difficult was it to remember --	<b>Very Difficult</b>					<b>Very Easy</b>
	1	2	3	4	5	6
1. The activities you did yesterday?	1	2	3	4	5	6
2. The times that you did each activity?	1	2	3	4	5	6
3. Who was in the room with you?	1	2	3	4	5	6
4. Who accompanied you to different activities?	1	2	3	4	5	6
5. The activities that were done for your MAIN job or business?	1	2	3	4	5	6
6. (If applicable) The activities that were done for your OTHER job or business?	1	2	3	4	5	6
7. The activities for which you were paid or expect to be paid?	1	2	3	4	5	6

How confident are you in the accuracy of the information you provided about -	<b>Not at all Confident</b>			<b>Very Confident</b>		
1. The activities you did yesterday?	1	2	3	4	5	6
2. The times that you did each activity?	1	2	3	4	5	6
3. Who was in the room with you?	1	2	3	4	5	6
4. Who accompanied you to different activities?	1	2	3	4	5	6
5. The activities that were done for your MAIN job or business?	1	2	3	4	5	6
6. (If applicable) The activities that were done for your OTHER job or business?	1	2	3	4	5	6
7. The activities for which you were paid or expect to be paid?	1	2	3	4	5	6

### 3. RATING SCALE REVIEW

- a) I'd like to start by getting a feel for what these numbers mean to you.
  - (1) What makes something a 6?
  - (2) What about a 5, how is a 5 different from a 6?
  - (3) *Continue using each point on the scale.*
  
- b) Let's start by looking at your ratings on the first questionnaire, the one that asked about how easy or difficult it was for you to remember different things. I'd like to better understand each of your answers.
  - (1) We'll start up here with the first one, what was it about remembering what you did yesterday that made it (use ratings to determine fill) for you to remember?
  - (2) What was it about remembering what you did yesterday that made it easier than remembering (choose example for questionnaire)?
  - (3) Why was it harder to remember what you did than it was to remember (choose example from questionnaire)?
  - (4) Go through each item on questionnaire in a similar manner.
  
- c) **For items with same ratings** - You gave both (choose example) and (choose example) the same rating (give number). Was one of these easier to remember than the other? Why was that? I'd like you to go ahead and put these in order from hardest to easiest, even though I know that they were (all/both) equally (use ratings/verbal labels to determine fill).
  
- d) Repeat procedure for each questionnaire - ease/difficult and confidence.

#### 4. INTERPRETATION OF SUMMARY QUESTIONS

- a) At the end of the telephone interview, I asked you a few questions about things you might have done as part of your job or for pay. I'd like to talk with you a little bit about those two questions.

The first question that I asked you was, "*Other than the times you said you were at work) were any of the activities you mentioned done for your (MAIN) job (or business)?*"

- i. How did you interpret that question? What did you think I was asking?
- ii. How did you go about answering that question? What went through your mind?
- iii. What kinds of activities would you include in a category "things I do for my job or business?"

The second question that I asked you was, "*Were there any (other) activities that you were paid for or expect to be paid for?*"

- i. Tell me in your own words what you thought that question was asking.
- ii. What went through your mind as you answered that question?
- iii. What kinds of activities would you include in a category "things I do for pay?"
- iv. How are the activities that you do for pay different from the activities you do for your job (or business)?

## 5. ACTIVITY-BY-ACTIVITY REVIEW

Let's take a look at your day yesterday.

- a) I'd like you to go through this with me and pick out all the things that you did yesterday that you would say were done for your job (or business).

*Interviewer note: Probe each identified activity to make sure that you understand why the respondent includes it as done for his/her job or business.*

- b) Now I'd like you to go through it and pick out all the things that you would say were done for pay, regardless of whether or not you've been paid for them yet.

*Interviewer note: Probe each identified activity to make sure that you understand why the respondent includes it as done for pay.*

## 6. ALTERNATIVE WORDINGS

I'd like to tell you a little bit more about why we're asking those work-related questions at the end of the telephone interview. I want to make sure that I'm really asking the right questions, so let me tell you a little bit about the purposes for those questions, and maybe you and I can come up with some alternatives.

- a) We know that some people bring work home with them or work outside of so-called "normal work hours." We want to make sure that we don't underestimate how much time people spend working by limiting it to only times they said they were "at work." Can you think of a question that would collect this kind of information?
- b) We also know that the idea of "being at work" may not be so clear to people who work from home or from other locations than a standard workplace. We want to make sure that we correctly identify all of their work activities. What would you ask people who work from home or other locations to help them remember all of things they did for work?
- c) People who are self-employed sometimes have very flexible work schedules. The idea of "being at work" may not be clear to them either, as many go back and forth from work to nonwork tasks. What kind of question would you ask self-employed people to collect information about their work activities?
- d) Lastly, we know that some people have little businesses on the side or do some informal things that may bring in some money. Can you think of a question that would help people who have side businesses remember all the things that they did for that side business?

## **APPENDIX C: STUDY 2. FICTIONAL SCENARIOS**

**Instructions:** Hand deck of cards to respondent. Ask the respondent to read the card out loud. If the respondent seems reluctant, say, “Or if you prefer, I can read the cards out loud.” The cards should be read out loud (1) to ensure that every respondent reads the entire card; and (2) to help you locate the scenario on the answer sheet. Record answers on sheet below. Make sure you get the respondents’ reasons for their responses

- a) I’d like you to take a look at these cards. Each card describes a different situation. I’d like you to decide whether or not that situation is one that you would say is being done for the person’s job or business. If you think that the situation is both work and non-work, please say so.
- b) Let’s go back through those cards, this time, tell me whether or not you think the person should expect to be paid for the activities described in each situation.

Situation	✓ if related to job or business	✓ if expect to be paid	Reasons
<p>Mary is a full-time salaried worker. She usually works about 45 hours a week at her job. In addition to the hours she spends working in her office, she also works on the train during her commute. This morning, Mary's train ride took 30 minutes. During that time she prepared her notes for a meeting that would take place later on that day.</p>			
<p>Eric's annual salary is \$40,000. He works downtown and lives in the suburbs and carpools to work. On his way home from work yesterday, Eric was a passenger in the car. He spent about 20 minutes of his hour-long commute home reading a journal article on a topic that's related to his job. He spent 40 minutes reading a novel.</p>			
<p>Chris is a freelance photographer. Over the past 10 years, he's sold quite a few pictures to various magazines. Over the weekend, Chris went out and took pictures. He spent about 2 hours taking pictures and used 5 rolls of film.</p>			
<p>Pat is an aspiring writer. She majored in creative writing in college and attended a writer's workshop for 2 months last summer. Yesterday, she spent about 4 hours working on a short story and wrote in her journal for 1 hour.</p>			

Situation	✓ if related to job or business	✓ if expect to be paid	Reasons
Alex is a minister. On Sunday, he spent most of the day golfing with one member of his bible study group and two new people who he met that morning.			
After work on Thursday, Karen went to the baseball game with her co-workers.			
Mark's boss hosts an annual party to which he invites all of his employees and some other managers and supervisors from work. Mark spent 3 hours on Saturday at the party.			
Michelle and Ray had a dinner party on Friday night. They each invited a few friends and a few co-workers.			
Jane is a college professor who is expected to teach and do research. On Wednesday, while she was walking her dog, she got an idea for a research project. She thought it through for the 45-minutes that she spent walking her dog.			
Paul is published novelist who is driving to visit his family who live an hour away. While he is driving, he gets an idea for a story and thinks about the plot and characters the whole time he is driving.			
The company that Corinne works for gives employees several days off with pay over the course of the year. Yesterday, Corinne used one of these days off to get her car fixed and go to the dentist.			

