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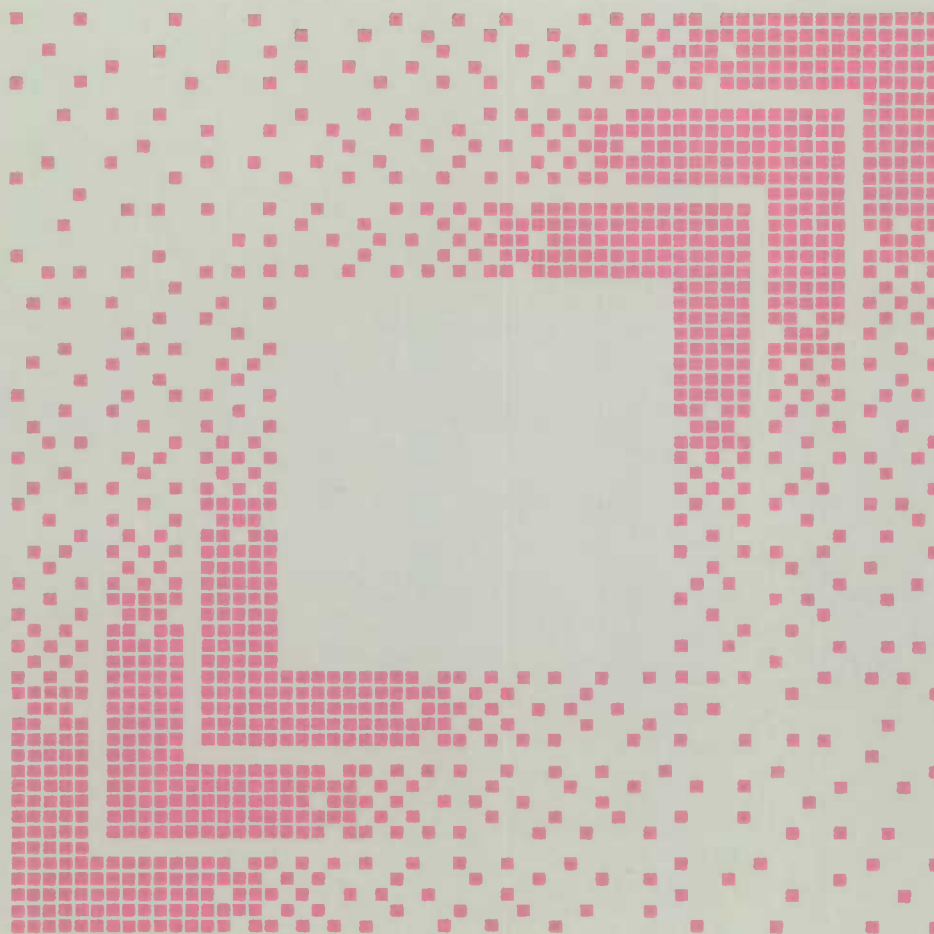
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WORKING PAPER #10

**ESTIMATING THE VOLUME OF UNPAID WORK ACTIVITIES
IN CANADA, 1992: AN EVALUATION OF DATA
FROM THE GENERAL SOCIAL SURVEY**



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General Social Survey Working Paper # 10

**Estimating the Volume of Unpaid Activities in Canada, 1992:
An Evaluation of Data from the General Social Survey**

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Aussi disponible en français

ABSTRACT

Unpaid activities account for a substantial proportion of total productive activities in most countries, yet are not included in official calculations of economic activity such as the Gross Domestic Product. Proposals have been made to include unpaid activities in national accounting figures, but considerable disagreement remains over what activities to include, how to value them, and an appropriate data collection method to use. This paper addresses the suitability of various approaches to the measurement of time-use, widely accepted as the best method for quantifying unpaid activities. Various methods are discussed based on previous research, and the strengths and weaknesses of each illustrated. The use of a retrospective 24-hour diary and stylized question methods are evaluated using data from the 1992 General Social Survey (GSS) on the Time-use of Canadians.

Housework (e.g., cooking, cleaning, shopping), childcare (e.g., reading to, teaching, or reprimanding), house maintenance (e.g., painting, snow shovelling), and civic and voluntary activities (e.g., unpaid help given to others, volunteer work) were the unpaid activities this study dealt with. Average minutes per day spent on these activities were computed and compared in order to evaluate the two methods. Results revealed gender differences between the methods in the amounts of activities done, lending support for earlier research. Results also showed the following: 1) estimates of housework are higher according to the diary method; 2) estimates of childcare, house maintenance, and civic and voluntary activities are higher according to the stylized method; and, 3) the total amount of time spent on unpaid activities is about 20% higher according to the stylized method. Differences in estimates produced by the two methods were also found to be affected by age and the volume of an activity done by an individual, but not education.

TABLE OF CONTENTS

1. INTRODUCTION	1
1.1 Defining Unpaid Work	1
2. DATA COLLECTION METHODS	2
3. PREVIOUS RESEARCH	3
4. STRENGTHS AND WEAKNESSES OF THE METHODS	5
5. CANADIAN SURVEYS MEASURING UNPAID WORK	8
5.1 1985 GSS on Health and Social Support	8
5.2 1990 GSS on Family and Friends	9
5.3 The Survey of Voluntary Activity	9
5.4 1986 GSS on Time-Use	10
5.5 1992 GSS on Time-Use	10
6. COMPARISON OF 1992 GSS DIARY AND STYLIZED DATA	11
6.1 General Approach	11
6.2 Results	12
6.2.1 Age Differences	14
6.2.2 Education Differences	16
6.2.3 Activity Volume Differences	16
7. CONCLUSIONS AND DISCUSSION	19
REFERENCES	22
APPENDIX A	24
APPENDIX B	30

1. INTRODUCTION

Participation in paid employment increased drastically for Canadian women between 1961 and 1991, from 23% to 57% (Statistics Canada, 1961; 1991). Working outside the home means that these women have less time, on average, to perform "traditionally female" tasks such as housework and childcare. Historically, women have done most of the work in the home, which allowed men to work for pay in the market economy. As women participate in the market economy in larger numbers, it might be expected that the amount of unpaid labour done by women and men would converge. However, this has not been the case according to recent research (Gershuny and Robinson, 1988).

It is estimated that unpaid work accounts for as much as 48% of the total productive activity in some of the more developed countries (Chadeau, 1985), although it is not included in measures of the Gross Domestic Product. Accordingly, the measurement of unpaid work has received a great deal of attention. Research in Canada has attempted to value non-market activity such as domestic work since the 1970's (Hawrylyshyn, 1974; Adler and Hawrylyshyn, 1978; Jackson, 1992). However, it is necessary to know the volume of the activity in order to attach a monetary value to it. A central theme involved in the measurement of unpaid work is the amount of time spent on related activities. In fact, time is considered the most accurate unit of measurement available to quantify the volume of activities (Juster and Stafford, 1991).

This paper critically evaluates the methods used to gather data on unpaid work and the data they produce. The activities included under the term "unpaid work" and how they are valued are presented next, while time-use data collection methods are described in section two. Previous research is reviewed in section 3, followed by a discussion of the strengths and weaknesses of the various methods in section four. Data and methods of selected Canadian surveys that deal with unpaid work are described in the fifth section. Section 6 presents results of an empirical analysis of data from the 1992 General Social Survey (GSS) on Time-Use, conducted by Statistics Canada. The last section of the paper discusses the implications of the results from this analysis, concluding with suggestions for future research.

1.1 Defining Unpaid Work

The economic principle of **replacement cost** is generally used to attach a value to unpaid work activities. According to this principle, the value of a non-market activity is derived from what it would cost to pay for that activity in the market economy (Frederick et al., 1991). For

example, childcare is considered unpaid work because one can pay for such services, either through a childcare centre or a baby sitter. Therefore, a value could be attached to an unpaid activity if it is **performed outside the realm of the market economy** and if it **could be performed by a third party**. Based on this premise, the 1992 GSS on Time-Use defined the following activities as unpaid work: housework, house maintenance, childcare, elder care, unpaid assistance to others, and volunteer work.

2. DATA COLLECTION METHODS

There are several approaches to collecting time-use activity data, including direct observation, random activity sampling using beeper devices, direct or "stylized" reporting, and the diary or time budget method. **Direct observation** is the most accurate because the researcher does not have to rely on respondents' interpretations of activities as unpaid work. The researcher usually spends time with the respondent, recording each activity, its location, duration, etc., or recording activities at randomly selected times. The **random activity sampling (beeper)** method involves the use of beepers to prompt respondents to report the activity they are engaged in at that time. When the beeper goes off, the respondent records their present activity, where they are, who they are with, etc., using a form provided by the researcher. Respondents may even indicate how long they have been doing the activity or any other activities they may be doing simultaneously.

The **direct** or **stylized** approach involves asking respondents to estimate how much time they spend on various activities over a specified period of time. For example, in the 1992 GSS respondents were asked how much time they spent on childcare: *Last week, how many hours did you spend looking after children who live in your household?* The reference period varies for different activities among surveys, but is usually an easily recallable period such as a week, a month, or a year. While direct questions ask about the actual or average amount of time spent on various activities, a variant is to ask if an activity were done during some time period, and if so, how frequently it was done (e.g., how many times per week or month).

Using the **diary** approach respondents indicate how they spend their time during a specific time period, usually the previous 24 hours. Depending on the focus of the research, this method collects data on primary, secondary, even tertiary activities, the start and end time, where the activity takes place (home, work, in transit), and who the respondent is with (spouse, children,

other family, etc.). Diaries can be completed in an interview where respondents relate their activities to the interviewer, or in a self-completed form in which respondents indicate their activities for specified time periods (e.g., 15 minute blocks only). The diary approach is the least difficult for respondents because they describe activities in their own words. Data are coded by the researchers using a scheme similar to the one used in the multinational study in the mid-1960's (Szalai, 1972), among others.

3. PREVIOUS RESEARCH

Research concerning the various methods of data collection on time-use is quite limited, even more so for unpaid work. Studies comparing diary and stylized estimates have found that the latter tend to overestimate many activities (Robinson, 1985; Herzog et al., 1989; Niemi, 1990). Validity and reliability studies have revealed that the diary approach provides sound estimates compared to more expensive methods such as the random time sampling approach (Robinson, 1985). Examination of unpaid work has discovered that respondents' recall plays an important role in estimating activities which occur infrequently (Herzog et al., 1989; Juster and Stafford, 1991).

Herzog et al. (1989) compared data from the Americans' Changing Lives (ACL) survey to data from the 1975-76 Time-Use Survey, conducted by the Institute for Social Research at the University of Michigan. The ACL collected stylized estimates of the number of hours spent on various activities during the past year. Five questions were asked to assess the amount of housework done in an average week (e.g., *Do you prepare food for meals or wash dishes?; Do you do grocery shopping?*). Respondents then gave an estimate of time spent on all housework activities combined, using hour-range response categories. Only one question was used to obtain how many hours respondents spent on childcare during an average week (e.g., *About how many hours do you spend in an average week caring for the child(ren) who live here?*). For all other unpaid activities, respondents had a choice among categories that defined ranges of hours spent over a 12 month period.

Their analysis revealed that estimates of infrequent activities, such as outside home maintenance, were higher using stylized methods, but that these estimates were likely more accurate than those from diaries. A possible explanation for this was that because maintenance activities like painting occur in large blocks of time, they are quite memorable. When yearly or

monthly time spent on maintenance is estimated directly, these major time blocks are easily included. However, diary methods often sample only one day, and estimates include a disproportionate number of cases with zero and extremely high hours. Estimates of time spent on simultaneous activities such as childcare were also higher using the stylized approach. This happened because the diary obtained only primary activities, while the stylized approach allowed respondents to estimate each activity separately regardless of how the activity was done. As childcare is often performed at the same time as cooking or cleaning, estimates are usually lower in diary estimates that do not collect secondary activities.

Analyzing Finnish time-use data, Niemi (1990) found that: 1) perceptions of people in different sub-groups of the population can affect estimates of time-use; 2) recall plays a very important role in estimating activity time, especially when events are distinct; and, 3) the diary reduces the social desirability effect often associated with stylized estimates. An example of the first point is that compared to other economically active people, Finnish farm women had a different idea of what was meant by 'gainful employment' to the extent that their estimates of time spent on this activity were markedly different from the rest of the population. Secondly, diary and stylized estimates were similar for activities that were easy to remember (especially when the latter covered a short recall period), but were quite divergent when events were not so memorable. Lastly, activities such as television viewing can be underestimated using stylized estimates because people do not want to be seen as watching too much television. However, the diary reduces this effect because people simply describe their activities for one day. Aggregate level estimates of such activities are usually more accurate when diary methods are used.

Robinson (1985) assessed alternative methods for collecting time allocation data. Validity studies were conducted to compare aggregate time diary estimates to those from the beeper approach in which study participants recorded their activities at 30 to 40 randomly selected times per day. Three separate studies revealed that the diary method produced similar results compared to the beeper method. Larger amounts of time were observed in diary estimates for the amount of time spent visiting with friends and shopping, while the beeper method produced higher estimates for time spent on phone conversations. Overall, the beeper method was somewhat less valid for activities that took place outside the home. The author argued in favour of using the diary method in light of its lower costs relative to the beeper approach. A second focus of Robinson's research was the ability of the diary method to produce consistent aggregate results

over repeated samples. Although it was not possible to compare the same samples, aggregate diary data from three sources were comparable. Aggregate diary data appeared quite consistent across the varying surveys examined. Correlations ranging from .85 to .95 suggested a strong degree of correspondence of estimates from the different surveys. Third, stylized and diary estimates of various activities were compared by Robinson. Results revealed that respondents consistently overestimated their activity times using the stylized approach. This effect was more noticeable for activities performed as secondary activities such as childcare.

Juster and Stafford (1991) reviewed a variety of studies based on data from the 1975-76 Time-Use Survey to evaluate different methodologies. They argue that the major bias of stylized interview approaches is the consistent, but differential, overestimation of activity time. The main reason for this is that respondents recall a day when an activity was done and treat it as an average day, when in fact it is usually atypical. Similar to Robinson (1985), Juster and Stafford found that beeper methods tend to under report activities performed outside the respondent's home. They conclude with the argument that although the stylized approach is more useful for individual comparisons, diary methods are most useful for aggregate or subgroup data such as means, and are the superior approach overall.

4. STRENGTHS AND WEAKNESSES OF THE METHODS

As mentioned above, direct observation is the most accurate method for collecting time-use data, although its use is limited due to prohibitive costs. The random sampling, or beeper, approach is also accurate, but runs the risk of mechanical failure (e.g., batteries failing). Research has found the beeper approach to be a good measure of activities done inside the household, but less accurate for those done outside one's home such as volunteer work (Robinson, 1985). This social desirability effect is likely due to the 'stigma' that comes from having a beeper go off in public. Both of these methods also require a great deal of respondent co-operation due to the investigator's involvement in their lives.

An advantage to the stylized method is that the data allows for analysis at the level of the individual. Respondents report activities performed over a given time period that usually has a better chance of capturing the full range of activity than does the diary. When using the same reference period for stylized estimates, it is possible to compare individuals because the time frame is the same for all respondents. This is an especially important advantage for estimating

infrequent but memorable activities. As noted by Juster and Stafford (1991, p.485) "stylized estimates even over long retrospective time periods may represent a better variable to identify households with small or large amounts of home repair activity."

A major concern about the stylized method is the cognitive process that respondents go through in order to answer the question. There are four stages in the cognitive process or responding to survey questions: comprehend, recall, judge, and respond (Tourangeau, 1984). Difficulties in this process associated with the stylized approach can be illustrated using the activity "housework". Respondents must first comprehend what is meant by the term "housework". It may mean one thing to a respondent, but have a completely different meaning to the researcher. In fact, these perceptions may differ among respondents (Niemi, 1990). It is necessary to have clear lists of activities included under "housework" when using stylized methods (e.g., cleaning, meal preparation, shopping). Herzog et al. (1989) attempted to solve this problem for various activities by using a series of prompts about specific tasks within activity groups. In the second stage respondents must recall when they did any "housework" during the given reference period. Larger blocks of time may tend to stand out and smaller ones may be forgotten. While this may not present a problem for the previous week, it can become troublesome to remember one's activities over the previous year. Even if the reference period is only a week, it can be confusing to respondents whether it is the previous week, or a "usual" week. This can lead to over-estimation of time spent on activities, especially those done infrequently (Herzog et al., 1989). In the third stage, respondents must judge how much total time they spent on "housework" and decide which activities to include in their answer. These estimates may be inaccurate if blocks of time are omitted, or events that took place outside of the reference period are included (telescoping effect). Juster and Stafford (1991) report that in some cases, respondents have allotted more time to activities than exists in the reference period. The absence of a framework which requires the reporting of all activities during the reference period can lead to serious omissions of reported time, thus calling into question the reliability and validity of the data (Harvey and MacDonald, 1976). The last stage in the cognitive process involves communicating an answer. It is possible that attitudes or beliefs such as a social desirability effect may occur: respondents' answers may be affected by the acceptability of the specific activity. For example, watching "too much" television may be perceived as unacceptable, which may lead to under-reporting of time spent on this activity.

The diary approach is considered the **best** method for collecting time-use data for two reasons. First, the diary has more reasonable costs compared to direct observation and beeper methods. Second, the accuracy of the data produced by diary methods is generally superior to that produced by stylized estimates (Robinson, 1985; Juster and Stafford, 1991). The cognitive process is generally less of a factor with the diary approach. Respondents describe their previous day and responses are coded by the researcher: comprehension is relatively simple. Moreover, the shorter recall period increases the accuracy of information reported. Given only the previous 24 hours to describe, activities are easily remembered and cannot total more than the time period allows. Furthermore, because activities are related in chronological order, there is little difficulty arising from having to make a judgment of how much time to include in one's answer.

A serious drawback to the diary approach is that analysis of data is not possible at the individual level because often only one day of the year has been sampled for each respondent. This is not always a typical day for every activity, which means that some activities will be underestimated and others overestimated. Sampling several days for each respondent would reduce this weakness of the diary approach. However, due to biases associated with stylized estimates as discussed above, diary measures are preferred for aggregate or subgroup level data such as averages (Juster and Stafford, 1991).

Harvey and MacDonald (1976) proposed the use of input and output criteria to evaluate the various time-use data collection methods. Input criteria include respondent co-operation, respondent knowledge, cost (in both time and money), and processability. In general, the diary approach scores lower than stylized methods in terms of respondent co-operation, cost and processability. Diaries take longer to complete, whether administered through an interview, or self-completed. This increase in time, and often materials, also drives up survey costs. Processability is also easier for stylized methods because coding can be done on the spot. However, this weakness of the diary could be minimized with the introduction of computer assisted data collection techniques. Diaries score higher on the respondent knowledge criteria, because activities are described in respondents' own words, and the recall period is generally shorter. Stylized methods require more respondent knowledge because recall periods are usually longer, and respondents have to determine which activities should be included in or excluded from answers.

Diaries score much higher on output criteria, which include reliability, validity,

flexibility, and usability. Estimates from diaries have been shown to be more reliable because activities cannot total more time than is allotted in the reference period. Total stylized estimates very often exceed allowable time periods (Juster and Stafford, 1991). Validity is also improved with diary estimates as has been demonstrated by the comparability of data among several different surveys (Robinson, 1985; Juster and Stafford, 1991). Third, flexibility is greatly reduced using stylized methods. "Once collected under specific categories, the data provide no opportunity to redefine activities" (Harvey and MacDonald, 1976, p. 29). Activity coding with diary data is not subject to this limitation to the same degree. The lower usability of stylized data is reflected by its limited flexibility: recoding data may limit comparability to previous studies.

5. CANADIAN SURVEYS MEASURING UNPAID WORK

To date there have been relatively few studies of unpaid work in Canada. Data from early Time-Use studies, conducted in 1971 in Halifax and in 1981 in a variety of communities (Harvey, 1991), were used in the first attempts to place a value on unpaid work in Canada. However, the most recent data come from Statistics Canada surveys: the General Social Surveys (1985, 1986, 1990 and 1992) and the Survey of Volunteer Activity (1987).

The GSS is conducted annually, covering a different topic each year in a five-year cycle, in order to measure trends in Canadian society. The sample consists of persons aged 15 and over living in the 10 provinces. People living in institutions are generally excluded from this survey. Respondents are selected through randomly generated telephone numbers. Four cycles of the GSS provide data on various aspects of unpaid work. The 1985 and 1990 surveys provide estimates of frequency and proportion done, the 1986 survey provides time diary estimates, and the 1992 survey provides diary and stylized time use estimates.

5.1 1985 GSS on Health and Social Support

The core content of the 1985 survey was the Health Status of the Population, with a focus on the social support of the population aged 55 and over. Data were collected via telephone during a three week period in the fall of 1985 with Canadians aged 15-64. Personal interviews were conducted during the same time period with Canadians aged 65 and over. Questions on social support, which included items about unpaid work done for others in another household, were asked only of persons 55 years of age and over. There was no reference period for unpaid work done in the respondent's household, instead questions dealt with "usual" behaviour of

household members for the following activities: yard work, housework (includes heavy housework, i.e. washing floors and light housework, i.e. washing dishes), meal preparation, grocery shopping, money management (i.e., household administration). If the respondent was not solely responsible for the household activity, then he/she was asked how often other people did the activity, using the following categories: at least once a week, less than once a week, less than once a month. Respondents were also asked if they provided any unpaid help to someone living in another household in the past 6 months. The amount or frequency of these activities done was not obtained. Activities included unpaid housework, transportation assistance, maintenance/yard work, unpaid babysitting, personal care, volunteer work for organizations, and financial assistance.

5.2 1990 GSS on Family and Friends

Data collection took place from January to March 1990 for the fifth instalment of the GSS, the core content of which was Family and Friends. Part of this survey focused on the general issues of social support. Among other things, respondents were asked to indicate how much unpaid work they did within their own household during the previous 12 months, if they were primarily responsible for these activities, and who may have helped. Unpaid work within one's household consisted of meal preparation, meal cleanup, cleaning and laundry, and outside maintenance, and was measured in terms of the proportion done by the respondent and others in the household. Respondents were also asked if they provided any unpaid help to someone living in another household in the past 12 months, and their relationship (if any) to the person they helped (e.g., *During the past 12 months, have you done any unpaid housework outside your home such as cooking, sewing or cleaning?*). Unpaid help outside the household consisted of housework (e.g., cooking, sewing, cleaning), house maintenance (e.g., repairs, painting), transportation, childcare, personal care, and volunteer work. The frequency with which these activities were done was measured by the following categories: at least once a week, less than once a week, less than once a month. It is important to note that the 1985 and 1990 surveys collected only relative estimates (frequencies and proportions) of unpaid activities.

5.3 The Survey of Voluntary Activity

This survey was conducted in October 1987, by Statistics Canada, for the Department of the Secretary of State of Canada. The period covered was November 1, 1986 to October 31, 1987. The sample consisted of Canadians aged 15 and over in all 10 provinces, excluding people

living in the territories, on Indian reserves, full-time members of the Armed Forces and inmates of institutions. A screening questionnaire was included as a supplement to the Labour Force Survey. In this initial contact, respondents indicated the type of "formal" help they provided and to which organizations, as well as any "informal" help (unpaid work) they may have provided on their own to family, friends or neighbours. Relative estimates of frequency of informal help given during the last 12 months was measured using the following categories: often, occasionally, seldom. A more detailed follow-up questionnaire was self-completed by those respondents who had performed some volunteer work for an organization in the reference period. This stage of the survey, completed in January 1988, contained several questions about absolute amount of time spent on volunteer activities, including average hours per week, hours last week and number of weeks and months in which the person volunteered. Respondents also indicated various subjective measures of the quality of their volunteering experience, such as satisfaction.

5.4 1986 GSS on Time-Use

In November and December of 1986, the GSS conducted the first national Time-Use survey in Canada. Respondents were asked to report their activities for a 24-hour day, generally the day preceding the interview. Only primary activities were captured in this survey. Activities were coded to 96 categories based on classification systems used in previous studies.

5.5 1992 GSS on Time-Use

A major objective of the 1992 survey was to improve the quality and reliability of measures of unpaid work. The coding of diary activities was expanded to 167 categories in order to pay particular attention to improving the measurement of unpaid work carried out for persons not living in the household. A significant improvement was the elimination of seasonality in the estimates as the survey was conducted monthly throughout the year. In order to provide individual level data and to compare the stylized and diary approaches, the 1992 GSS also included a set of stylized time use questions. Using this approach, respondents were asked how much time they spent on various unpaid work activities over the previous week or month. Unpaid household activities covered were childcare, housework, and house maintenance. Unpaid activities done for others not living in respondent's household were: assistance with housework and cooking, house maintenance, babysitting, transportation, personal care, correspondence, a business or farm, volunteer work (for an organization), and other unpaid work. For unpaid household work the reference period was the previous week (e.g., *Last week did you spend any*

time doing housework including cooking, cleaning, grocery shopping and laundry for your household?). The reference period was the previous month for the unpaid non-household assistance activities (e.g., *Last month did you help someone else with housework, including cooking, cleaning, grocery shopping and laundry?*). The exact questions used in the surveys discussed here are presented in Appendix A.

6. COMPARISON OF 1992 GSS DIARY AND STYLIZED DATA

6.1 General approach

This analysis focuses on differences between data generated by the diary and stylized methods used in the 1992 GSS, the first national survey to use two different data collection techniques on time-use for the same sample. Consequently, in this preliminary analysis the variables were selected in order to make comparisons with previous research. Estimates presented here are based on sample data that have been weighted to reflect the total population. Sample sizes differ among unpaid work activities because 1) the time diary section of the 1992 GSS was not completed by all respondents, and 2) non-respondents to the stylized questions were excluded from this analysis. Diary and stylized estimates are weighted differently due to this non-respondent factor, but differences between estimates produced by this weighting scheme are negligible.

Gender differences in the amount of time spent on activities were expected due to the known gender gap that exists in amount and type of unpaid work done (Gershuny and Robinson, 1988; Oakley, 1974). Age and education differences were expected because it was thought that these variables may be related to the cognitive process involved in answering survey questions. As discussed above, stylized methods may pose problems with recall, resulting in less accurate estimates. Age was grouped into 4 categories (15-24, 25-44, 45-64, 65+). These categories reflect population characteristics such as labour force participation and child-rearing ages for women. Three categories were used to group highest level of education achieved: 'not completed high school' (< HS), 'completed high school and some college' (Coll), and 'completed a post secondary degree' (PS Deg). These categories were used because people with higher levels of education may have a better ability to accurately estimate time spent on activities.

The amount of an activity done was also assumed to be related to differences in estimates produced by the two methods: those who do none or very little would be more consistent in their

estimates than those who do more. The volume of an activity done per week was categorized into ranges using stylized data. Diary and stylized estimates were then compared using these categories. If both methods were equally reliable, figures for each category should be approximately equal (e.g., those in the '1 - 4' hours category should have average times for both diary and stylized data that correspond to 1 to 4 weekly hours).

6.2 Results

Time spent on unpaid activities is presented in Tables 1 to 4 as average minutes per day. Absolute and percentage differences are used to compare estimates produced by diary and stylized methods. In some cases, due to very small numbers, percentage differences are meaningless and are not interpreted. Unpaid assistance and volunteer work are included in the same category here because times for the separate unpaid assistance activities were too small for meaningful comparisons.

Noticeable differences in time spent on childcare occur between stylized and diary estimates for both males and females. According to stylized data in Table 1, men and women spend about 4 times as much time caring for children as compared to the primary childcare activities reported in the diary. These differences are likely due to the fact that the 1992 GSS diary obtains "primary" activities only. Other activities (laundry, cleaning, etc.) done at the same time as childcare are reported as the primary activity in a diary. When asked directly, however, both primary and secondary activities done with children are usually reported as 'time spent on childcare'. When childcare is excluded from diary and stylized estimates, total time spent on unpaid activities is essentially equal.

Estimates of unpaid housework for men are about 56% higher using diary data, and 35% higher for women. When shopping is removed from these estimates, in order to focus specifically on housework activities, the amount of housework is higher by only 29% for men and 13% for women. Diary housework totals in the third row of Table 1 exclude shopping because it was thought that perhaps respondents would not think of shopping as housework in the stylized question, even though it was included as an example of "housework" (see Appendix A). Diary coding in the 1992 GSS separated shopping from housework. Shopping was included as "housework" in diary estimates on a post-hoc basis. Diary estimates of time spent on house maintenance and civic and voluntary activities are lower for both men and women.

TABLE 1

Average Time¹ Spent on Unpaid Work Activities for the Population by Sex, Data Collection Method and Absolute and Percentage Differences.

Activity	Total				Male				Female			
	Diary	Stylized	Difference ²		Diary	Stylized	Difference		Diary	Stylized	Difference	
			Abs	Percent			Abs	Percent			Abs	Percent
Childcare ³	26	105	-79	-304	15	55	-40	-267	36	153	-117	-325
Housework (including shopping) ³	153	89	64	42	99	44	55	56	206	133	73	35
Housework (excluding shopping) ³	108	89	19	18	62	44	18	29	153	133	20	13
House Maintenance ³	12	25	-13	-108	19	34	-15	-79	5	17	-12	-240
Voluntary Activities ^{4,5}	23	37	-14	-61	23	33	-10	-43	24	41	-17	-71
Total Unpaid Activities	216	259	-43	-20	157	168	-11	-7	272	348	-76	-28
Total (excluding Childcare)	167	171	-4	-2	120	125	-5	-4	212	216	-4	-2

1. Minutes per day.

2. Abs Difference = Diary - Stylized.

3. Averaged over a 7 day week.

4. Voluntary activities include help with housework and cooking, house maintenance, unpaid babysitting, transportation assistance, help with adult personal care, correspondence assistance, unpaid help for a business or farm, volunteer work and civic activity, and other unpaid work.

5. Averaged over a 30 day month.

Note: Due to the relatively low time averages, percentage differences should be interpreted with caution.

6.2.1 Age Differences

Differences between diary and stylized estimates are next examined by age and education of respondent. Childcare data in tables 2 and 3 refer only to those people 'with children under age 15 living in the household'; if this condition was not met, respondents skipped the stylized question concerning time spent looking after household children. Data for all other activities refer to the total population. Differences in total time spent on all unpaid activities combined by age groups are not comparable due to this modification of childcare data.

The data in Table 2 indicate an inverse relationship between age and time spent on childcare: time devoted to childcare decreases as age increases, and absolute differences between diary and stylized estimates decrease as age increases. These patterns occur because as one gets older one's children get older, and consequently require less direct care than infants. The most striking result, however, is that the stylized estimates of childcare are almost 4 times greater than the diary estimates. This is consistent across gender and age groups.

The amount of time spent on housework (including and excluding shopping) increases with age according to diary data. Stylized data suggest a different pattern: there is a general decrease in the amount of time spent on housework as age increases, excluding those in the 15 to 24 age group. The youngest people spend the least amount of time on housework according to stylized data, while those in the next youngest age group (25 to 44) devote the most amount of time to housework. In general, differences between diary and stylized data increase with age, although differences are smaller when shopping is excluded from estimates. Consistent with the total population data, diary estimates of housework are greater than stylized estimates at every age group, for both sexes, except for males in the youngest age group (if shopping is excluded).

Estimates of house maintenance indicate that Canadians between the ages of 25 and 64 do the most. While these patterns are consistent for both data collection methods, gender differences are somewhat larger in the diary estimates. At the population level, as well as by gender, differences between diary and stylized data are smallest in the youngest age group, and quite similar in all other age groups. In general, these differences are smaller among women than men. The volume of house maintenance is greater when the stylized method is used, for both sexes and all age groups.

Diary estimates indicate that more time is devoted to civic and voluntary activities by older Canadians, those over age 45, and this holds for both genders. Stylized estimates,

TABLE 2
Average Time¹ Spent on Unpaid Work Activities for the Population by Age Group, Sex, Data Collection Method and Absolute and Percentage Differences.

Activity	Total				Male				Female			
	Diary	Stylized	Difference ²		Diary	Stylized	Difference		Diary	Stylized	Difference	
			Abs	Percent			Abs	Percent			Abs	Percent
Childcare³ (n=2804)												
15-24	140	567	-423	-294	75	289	-214	-285	162	656	-494	-305
25-44	88	378	-290	-330	56	208	-152	-271	114	520	-406	-356
45-64	36	184	-148	-411	22	143	-121	-550	63	267	-204	-324
65+	-- ⁴	--	--	--	--	--	--	--	--	--	--	--
All ages	85	368	-283	-333	52	201	-149	-287	114	512	-398	-349
Housework (including shopping)³ (n=9430)												
15-24	79	49	30	38	54	34	20	37	105	64	41	39
25-44	157	106	51	32	93	50	43	46	221	161	60	27
45-64	178	90	88	49	118	37	81	69	236	144	92	39
65+	205	88	117	57	161	49	112	70	237	117	120	51
All ages	155	89	66	43	100	44	55	56	207	133	74	36
Housework (excluding shopping)³ (n=9430)												
15-24	50	49	1	2	32	34	-2	-6	68	64	4	6
25-44	113	106	7	6	57	50	7	12	168	161	7	4
45-64	126	90	36	29	76	37	39	51	175	144	31	18
65+	147	88	59	40	103	49	54	52	179	117	62	35
All ages	110	89	21	19	63	44	19	30	155	133	22	14
House Maintenance³ (n=9664)												
15-24	5	13	-8	-160	8	18	-10	-125	2	7	-5	-250
25-44	13	29	-16	-123	21	37	-17	-85	6	21	-15	-250
45-64	17	32	-15	-88	27	42	-15	-56	7	22	-15	-214
65+	6	19	-13	-217	14	29	-15	-107	1	12	-11	-1100
All ages	12	25	-13	-108	19	34	-15	-79	4	17	-13	-325
Voluntary Activities^{5,6} (n=9494)												
15-24	19	33	-14	-74	16	31	-15	-94	22	33	-11	-50
25-44	18	40	-22	-122	18	35	-17	-94	19	45	-26	-137
45-64	29	40	-11	-38	26	31	-5	-19	32	49	-17	-53
65+	33	29	4	14	43	32	11	26	26	28	-2	-8
All ages	23	37	-14	-61	23	33	-10	-43	24	41	-17	-71

1. Minutes per day.

2. Abs Difference = Diary - Stylized.

3. Averaged over a 7 day week.

4. A dash indicates that the sample size (n) for this category is less than 50.

5. Voluntary activities include help with housework and cooking, house maintenance, unpaid babysitting, transportation assistance, help with adult personal care, correspondence assistance, unpaid help for a business or farm, volunteer work and civic activity, and other unpaid work.

6. Averaged over a 30 day month.

Note: Due to the relatively low time averages, percentage differences should be interpreted with caution.

however, indicate that for women and the population as a whole, those between ages 25 and 64 spend more time on these activities, while men spend roughly the same amount of time on these activities regardless of age group. A rough pattern exists between the two types of estimates: differences are larger among the younger age groups than the older groups, and diary estimates are smaller than stylized. However, in the oldest age group, diary estimates are bigger for the total population and males, while smaller for females.

6.2.2 Education Differences

The assumed effect of higher education improving the consistency between time-use estimates does not seem to hold. Data in Table 3 suggest that this effect is evident only for some of the activities: childcare (males only); housework (males only); housework, excluding shopping (males and females); and civic and voluntary (total population). A pattern that does appear is that differences between diary and stylized estimates are remarkably close by education categories for all activities except childcare. More time is spent on childcare by Canadians with some college education, while those who have not completed high school spend the least amount of time on childcare. This difference can partially be explained by the fact that those who have not completed high school are generally much younger and likely do not have children, or are seniors who have no children in their home. Otherwise, education does not appear to be related to either the distribution of estimates or the differences between diary and stylized estimates.

6.2.3 Activity Volume Differences

The data in Table 4 indicate that the volume of unpaid work done is an important factor in explaining differences between the data collection methods. For childcare, house maintenance and civic and voluntary activities the absolute and percentage differences between diary and stylized estimates generally increase as the volume of the activity increases. Those who spend the least amount of time on each of these three activities, 1 to 4 hours per week, display more consistency between their two estimates. Estimates of childcare and civic and voluntary are virtually equal for this category, at the population level as well as by gender. Except for the lower volumes (0 and 1-4), the diary estimates are lower for childcare, house maintenance, and civic and voluntary activities. Housework, on the other hand, reveals a different pattern. The more housework done per week, the closer the estimates between diary and stylized data. Those who do 15 or more hours per week according to the stylized data have smaller differences between diary and stylized estimates than those who do less than 15 hours per week of

TABLE 3
Average Time¹ Spent on Unpaid Work Activities for the Population by Highest level of Education Achieved, Sex, Data Collection Method and Absolute and Percentage Differences.

Activity	Total				Male				Female			
	Diary	Stylized	Difference ²		Diary	Stylized	Difference		Diary	Stylized	Difference	
			Abs	Percent			Abs	Percent			Abs	Percent
Childcare³												
< HS	67	323	-256	-382	40	183	-143	-358	95	470	-375	-395
Coll	90	409	-319	-354	48	219	-171	-356	118	533	-415	-352
PS Deg	91	350	-259	-285	62	196	-134	-216	120	507	-387	-323
Housework (including shopping)³												
< HS	155	86	69	45	99	39	60	61	210	135	75	36
Coll	155	92	63	41	101	42	59	58	204	137	67	33
PS Deg	153	87	66	43	101	48	53	52	206	128	78	38
Housework (excluding shopping)³												
< HS	115	86	29	25	62	39	23	37	166	135	31	19
Coll	109	92	17	16	63	42	21	33	151	137	14	9
PS Deg	105	87	18	17	64	48	16	25	148	128	20	14
House Maintenance³												
< HS	12	25	-13	-108	20	34	-14	-70	4	16	-12	-300
Coll	11	24	-13	-118	19	32	-13	-68	4	16	-12	-300
PS Deg	12	28	-16	-133	19	35	-16	-84	5	20	-15	-300
Voluntary Activities^{4,5}												
< HS	24	33	-9	-38	23	28	-5	-22	25	38	-13	-52
Coll	21	38	-17	-81	20	34	-14	-70	21	42	-21	-100
PS Deg	25	41	-16	-64	25	37	-12	-48	25	46	-21	-84

1. Minutes per day.

2. Abs Difference = Diary - Stylized.

3. Averaged over a 7 day week.

4. Voluntary activities include help with housework and cooking, house maintenance, unpaid babysitting, transportation assistance, help with adult personal care, correspondence assistance, unpaid help for a business or farm, volunteer work and civic activity, and other unpaid work.

5. Averaged over a 30 day month.

Note: Due to the relatively low time averages, percentage differences should be interpreted with caution.

TABLE 4
Average Time¹ Spent on Unpaid Work Activities for the Population by Weekly Hours² of Activity, Sex, Data Collection Method and Absolute and Percentage Differences.

Activity Hours Per Week	Total				Male				Female				
	Diary	Stylized	Difference ³		Diary	Stylized	Difference		Diary	Stylized	Difference		
			Abs	Percent			Abs	Percent			Abs	Percent	
Childcare													
None	22	0	22	100	17	0	17	100	-- ⁴	--	--	--	
1 - 4	25	24	1	4	27	24	3	11	--	--	--	--	
5 - 14	36	80	-44	-122	37	80	-43	-116	34	79	-45	-132	
15 - 29	56	180	-124	-221	55	179	-124	-225	59	182	-123	-209	
30 +	118	559	-441	-374	76	403	-327	-430	133	617	-484	-364	
Housework													
None	85	0	85	100	71	0	71	100	134	0	134	100	
1 - 4	91	21	70	77	86	20	66	77	104	23	81	78	
5 - 14	155	74	81	52	120	68	52	43	184	79	105	54	
15 - 29	226	169	57	25	146	159	-13	-9	247	172	75	30	
30 +	306	344	-38	-12	--	--	--	--	309	346	-37	-12	
House Maintenance													
None	3	0	3	100	4	0	4	100	2	0	2	100	
1 - 4	8	18	-10	-125	11	19	-8	-73	4	18	-14	-350	
5 - 9	30	53	-23	-77	39	54	-15	-38	14	52	-38	-271	
10 +	54	160	-106	-196	66	158	-92	-139	28	162	-134	-479	
Voluntary Activities⁵													
None	7	0	7	100	7	0	7	100	7	0	7	100	
1 - 4	16	14	2	13	18	14	4	22	15	13	2	13	
5 - 9	33	53	-20	-61	28	53	-25	-89	37	53	-16	-43	
10 +	60	156	-96	-160	64	154	-90	-141	57	158	-101	-177	

1. Minutes per day, averaged over a 7 day week.
2. Categories derived from stylized estimates.
3. Abs Difference = Diary - Stylized.
4. A dash indicates that the sample size (n) for this category is less than 50.
5. Voluntary activities include help with housework and cooking, house maintenance, unpaid babysitting, transportation assistance, help with adult personal care, correspondence assistance, unpaid help for a business or farm, volunteer work and civic activity, and other unpaid work.

Note: Due to the relatively low time averages, percentage differences should be interpreted with caution.

housework. This pattern is also consistent at the population level and by gender. Overall, the stylized estimates of housework tend to underestimate housework. Table 4 shows the degree of underestimation tends to be greater the lower the volume of work. In fact, those doing a high volume of activity tend to overestimate in the stylized.

The most plausible explanation for these patterns is the relationship between diary and stylized estimates: the latter tend to be higher for childcare, house maintenance and civic and voluntary activities, while lower for housework. When daily averages for diary data from each category in Table 4 are converted to weekly estimates, they are consistent at the high end for housework, and at the low end for the other three activities. For example, the diary estimate of 306 minutes of housework per day converts to 35.7 hours per week, which is consistent with the category for this value. However, the 91 minutes for the '1 - 4' category converts to 10.6 hours per week, which is too high for this category.

7. CONCLUSIONS AND DISCUSSION

Past research has shown stylized estimates to be close to diary estimates for activities done on a regular basis such as unpaid housework, and higher for occasional activities such as home maintenance and simultaneous activities such as childcare. In general, data from the 1992 GSS support these findings. Results indicate that stylized estimates of childcare, house maintenance, and voluntary activities are higher than diary estimates, while those for housework are lower. The disparity between estimates of housework produced by the two methods in the 1992 GSS was attributed to the inclusion of shopping as a component of housework.

Results also show that the pattern of differences between diary and stylized estimates is inconsistent across various characteristics. For example, according to diary data, women spend about 80% more time on all unpaid activities combined than men, while stylized data indicate that this difference is more than 100% (see Table 1). Diary data indicate that women spend about twice as much time on childcare and housework as men, while stylized estimates of childcare and housework are three times as much for women as they are for men. Men spend about 4 times as much time as women on house maintenance according to diary data, but only twice as much according to stylized data. Yet, women and men do about the same amount of civic and voluntary activity based on diary estimates, while women spend about 25% more time than men on civic and voluntary activities according to stylized estimates.

Gender differences found in previous research have also been found in the 1992 GSS data. Childcare and housework activities are done more by women than by men, house maintenance is performed more by men than women, and voluntary activities are done about equally. Results also indicate there is a noticeable relationship between age and the differences between diary and stylized estimates, albeit differential across activities. The 1992 GSS data also reveal that education is not related to differences between estimates produced by the two methods. Furthermore, at the general population level and by age, those who spend the least amount of time on an activity are more consistent in their estimates of time using either method.

What implications do these findings have for time-use research? With regard to the optimum time-use data collection method to be used, many of these results parallel those from earlier research. This would seem to indicate that diary estimates are generally more accurate than those produced by stylized methods. That the effects of age and education are dissimilar appears contradictory considering the assumption lying behind the inclusion of these variables in the analysis. Cognitive abilities were assumed to be related to differences between diary and stylized methods. This relationship appeared when age was an analysis variable, but not so for education. The nature of the effect of cognitive abilities on the quality of time-use estimates needs further study.

Those who spend little time on an activity were also found to display greater consistency between their diary and stylized estimates. In general, as time spent on activities increases, differences between estimates also increases. This could be a function of the cognitive difficulty associated with recall for irregular activities such as house maintenance, or secondary activities like childcare. If, as indicated in the literature, activities that occur infrequently are overestimated using stylized methods, and those that take place frequently are underestimated, these results appear to be valid.

The consistent higher estimation of childcare by stylized methods contributes a great deal to the debate between the accuracy of the two methods. Data from other methods also used in the 1992 GSS should shed some light on this issue. As part of the diary, respondents indicated who they were with when doing activities (social contact). Subsequent to the diary, respondents were specifically asked at what times they were looking after household children during the previous day (childcare diary). Frederick (1993) demonstrates that childcare diary, social contact, and stylized methods produce estimates that are more comparable than those from the

regular diary method. It appears that stylized estimates of childcare for the previous day and contact with children according to the diary are more similar to weekly stylized estimates of childcare.

Given that these differences between diary and stylized estimates have been found to be relatively consistent across surveys, there is an implication for time-use research. It may be possible to calibrate the magnitude of the differences between the two methods. Once collected using stylized methods, data could be estimated to "diary level" figures using the known "error" factor. This would effectively reduce costs associated with diary methods, simplifying the implementation of time-use surveys. However, the results show that the relationship between the diary and stylized vary by characteristics such as sex and age. Therefore it may be necessary to do such a calculation specifically for age, sex or other characteristics.

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APPENDIX A: Stylized Questions on Unpaid Work Activities and Coverage Comparisons of Selected Statistics Canada Surveys.

Section 1 presents questions dealing with unpaid work activities done for the respondent's household. Section 2 presents questions dealing with unpaid help given to others outside of respondent's household. Questions are grouped by activity, highlighted with boldface type. Each survey, highlighted by underscoring, that dealt with a specific activity is included under that activity category.

1. UNPAID WORK DONE FOR RESPONDENT'S HOUSEHOLD

HOUSEWORK

1992 General Social Survey on Time-Use

Last week did you spend any time doing *housework*, including cooking, cleaning, grocery shopping and laundry for your household?

If yes: For how many hours?

1990 General Social Survey on Family and Friends

Who helps with *meal preparation* in your household?

The same question was also asked for *meal cleanup* and *house cleaning and laundry*.

The proportion done by those mentioned was then asked using four response categories:

- < ¼
- < ½
- > ½
- all

1985 General Social Survey on Health and Social Supports

Is the *housework* in your household usually done by ..

- Yourself alone
- Yourself and someone else
- Someone else

The same question was also asked for *meal preparation*, *grocery shopping*, *managing money*.

The frequency done by others was then asked using the following categories:

- At least once a week
- At least once a month
- Less than once a month

CHILDCARE

1992 GSS

Last week, how many hours did you spend looking after children who live in your household?

HOUSE MAINTENANCE

1992 GSS

Last week, did you do any *unpaid work to maintain or improve your house, yard or automobile?*

If yes: For how many hours?

1990 GSS

Who helps with *house maintenance and outside work* such as repairs, painting, carpentry, lawn mowing, shovelling snow?

The proportion done by those mentioned was then asked using four response categories:

- < ¼
- < ½
- > ½
- all

1985 GSS

Is the *yardwork for your dwelling*, such as lawn mowing, leaf raking and snow shovelling usually done by ..

- Yourself alone
- Yourself and someone else
- Someone else

The frequency done by others was then asked using the following categories:

- At least once a week
- At least once a month
- Less than once a month

2. UNPAID HELP GIVEN TO OTHERS OUTSIDE OF RESPONDENT'S HOUSEHOLD

HOUSEWORK

1992 GSS

Last month did you help someone else with housework, including cooking, cleaning, grocery shopping and laundry?

If yes: For how many hours?

1990 GSS

During the past 12 months, have you done any unpaid housework outside your home such as cooking, sewing or cleaning?

If yes: For which person or organization? (Mark all that apply)

How often did you provide this help?

- At least once a week
- At least once a month
- Less than once a month

1985 GSS

In the last 6 months have you done any unpaid housework outside your home such as cooking, sewing or cleaning?

If yes: For which person or for which organization? (Mark all that apply)

Survey of Volunteer Activity

Since November 1 1986, did you help with housework such as cooking or cleaning?

Respondents were also asked who they helped, and frequency of help given:

- Often
- Occasionally
- Seldom

HOUSE MAINTENANCE

1992 GSS

Last month did you help someone else with repairs or maintenance on a house, yard or automobile?

If yes: For how many hours?

1990 GSS

During the past 12 months, have you helped anyone outside your household with house maintenance or outside work such as repairs, painting, carpentry, lawn mowing or snow shovelling?

If yes: For which person or organization? (Mark all that apply)

How often did you provide this help?

- At least once a week
- At least once a month
- Less than once a month

1985 GSS

In the last 6 months, have you done any maintenance or yard work such as repairs, painting, carpentry or lawn mowing?

If yes: For which person or for which organization? (Mark all that apply)

Survey of Volunteer Activity

Since last November, did you do any unpaid yard or maintenance work for others, such as gardening, painting, snow shovelling?

BABYSITTING

1992 GSS

Last month did you look after another person's child?

If yes: For how many hours?

1990 GSS

During the past 12 months, have you provided any unpaid childcare for anyone outside your household?

If yes: For whose children did you provide this care? (Mark all that apply)

How often did you provide this help?

- At least once a week
- At least once a month
- Less than once a month

1985 GSS

In the last 6 months have you done any unpaid babysitting?

If yes: For which person or for which organization? (Mark all that apply)

Survey of Volunteer Activity

Since last November, did you babysit without being paid?

PERSONAL CARE ASSISTANCE

1992 GSS

Last month did you provide personal care to someone who was disabled or ill?

If yes: For how many hours?

1990 GSS

During the past 12 months, have you provided any unpaid personal care, such as help bathing or dressing, to anyone outside your household?

If yes: For which person or organization? (Mark all that apply)

How often did you provide this help?

- At least once a week
- At least once a month
- Less than once a month

1985 GSS

In the last 6 months have you provided personal care, things such as help bathing or dressing, to anyone outside your home?

If yes: For which person or for which organization? (Mark all that apply)

TRANSPORTATION ASSISTANCE

1992 GSS

Last month, did you help someone else with transportation, shopping or getting around outdoors?

If yes: For how many hours?

1990 GSS

During the past 12 months, have you provided unpaid transportation to anyone outside your household, such as driving them to an appointment or shopping?

If yes: For which person or organization? (Mark all that apply)

How often did you provide this help?

- At least once a week
- At least once a month
- Less than once a month

1985 GSS

In the last 6 months have you provided transportation such as driving a person to a doctor, hospital or to stores?

If yes: For which person or for which organization? (Mark all that apply)

Survey of Volunteer Activity

On your own, not through an organization, did you help someone with shopping, or drive someone to appointments or stores?

CORRESPONDENCE ASSISTANCE

1992 GSS

Last month, did you help anyone to write letters, solve problems, find information or fill out forms?

If yes: For how many hours?

Survey of Volunteer Activity

Did you help others to write letters, solve problems, find information or fill out forms?

HELP WITH A BUSINESS OR A FARM

1992 GSS

Last month, did you help anyone with carrying on a business or with farming?

If yes: For how many hours?

Survey of Volunteer Activity

Did you help anyone outside your household in the operation of a business or with farm work?

VOLUNTEER WORK

1992 GSS

Last month, did you do any volunteer work that I have not mentioned so far for an organization?

If yes: For how many hours?

1990 GSS

During the past 12 months, were you involved in any other unpaid volunteer work for any organizations, such as charities, teaching, fundraising, office work?

If yes: How often did you provide this service?

- At least once a week
- At least once a month
- Less than once a month

1985 GSS

In the past 6 months have you provided any unpaid volunteer work for organizations such as teaching, fundraising or office work?

If yes: For which person or for which organization? (Mark all that apply)

Survey of Volunteer Activity

14 separate questions were asked about volunteer activities ranging from *canvassing*, *campaigning*, or *fund-raising*, to *first-aid*, *fire-fighting*, or *search and rescue*.

OTHER UNPAID WORK

1992 GSS

Last month, did you help anyone in a way that I have not mentioned so far?

If yes: For how many hours?

Survey of Volunteer Activity

Not counting financial help, in the past year did you help in any other way on your own, not through an organization?

APPENDIX B: Unpaid Work Activity Classification, 1992 General Social Survey on Time-Use.

The following codes were used to classify diary activities to the appropriate category.

Housework

- 101 Meal Preparation
- 102 Baking, Preserving Food, Home Brewing, etc.
- 110 Food (or Meal) Cleanup
- 120 Indoor Cleaning
- 130 Outdoor Cleaning
- 140 Laundry, Ironing, Folding
- 151 Mending/Shoe Care
- 152 Dressmaking and Sewing
- 171 Gardening/Grounds Maintenance
- 172 Pet Care
- 173 Care of House Plants
- 181 Household Administration (e.g., Paying Bills, Menu Planning, etc.)
- 182 Stacking and Cutting Firewood
- 183 Other Household Work (not elsewhere stated)
- 190 Travel: Domestic Work

Maintenance and Repair

- 161 Interior Maintenance and Repair
- 162 Exterior Maintenance and Repair
- 163 Vehicle Maintenance
- 164 Other Home Improvements

Childcare

- 200 Baby Care - household child
- 210 Childcare - household child
- 220 Helping/Teaching/Reprimanding
- 230 Reading/Talking/Conversation with Child
- 240 Play with Children
- 250 Medical Care - household child
- 260 Unpaid Babysitting - household child
- 284 Other Childcare
- 291 Travel: Transportation for Household Child

Shopping for Goods and Services

- 301 Groceries
- 302 Clothing, Gas, etc.
- 303 Take-out Food
- 310 Shopping for Durable Household Goods
- 320 Personal Care Services (e.g., Haircut)
- 331 Financial Services (e.g., Banking)
- 332 Government Services (e.g., UIC)
- 340 Adult Medical and Dental Care
- 350 Other Professional Services
- 361 Automobile Maintenance and Repair
- 362 Other Repair Services (e.g., TV, Appliances)
- 370 Waiting for Purchases or Services
- 380 Other Shopping and Services
- 390 Travel: Shopping for Goods and Services

Civic and Voluntary Activity

- 271 Personal Care - household adults
- 272 Medical Care - household adults
- 282 Other Care for Household Adults
- 292 Travel: Transportation for Household Adults
- 600 Professional, Union, General
- 610 Political, Civic Activity
- 620 Child, Youth, Family Organization
- 630 Religious Meetings, Organizations
- 651 Fraternal and Social Organizations (e.g., Lions' Club)
- 652 Support Groups (e.g., Al-Anon, AA)
- 660 Volunteer Work, Organizations
- 671 Housework and Cooking Assistance
- 672 House Maintenance and Repair Assistance
- 673 Unpaid Babysitting
- 674 Transportation Assistance
- 675 Care for Disable or Ill
- 676 Correspondence Assistance
- 677 Unpaid Help for a Business or Farm
- 678 Other Unpaid Work
- 680 Other Civic and Voluntary Activity
- 691 Travel: Civic and Voluntary Activity
- 800 Coaching
- 892 Travel: Coaching

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