

## Measuring time use in households with more than one person

*The U.S. Government's first-ever national time-use survey will collect time diary data from one respondent per household, forgoing the opportunity to provide information about how nonmarket time is allocated between husbands and wives; Canada's General Social Survey, similar in approach, uses stylized questions to elicit that very information*

Anne E. Winkler

In an effort to measure time spent on unpaid activities such as commuting, performing housework, and spending time with one's children, the Bureau of Labor Statistics is designing the Government's first national time-use survey.<sup>1</sup> A large number of countries, including Australia and Canada, also have national surveys underway. A recent publication of the National Research Council makes a convincing argument that Government time-use surveys should be designed with an eye toward finding out about how nonmarket time is allocated in households with more than one person—that is, how domestic partners divide the time they spend on tasks such as housework and child care.<sup>2</sup> As just one example, time-use data are needed on *both* partners to fully assess the challenges faced by workers in dual-earner families as they seek to balance the competing demands of paid work and family.<sup>3</sup> Indeed, argues Timothy M. Smeeding, “time use data may be as important as income, consumption, and wealth data for informing public policy.”<sup>4</sup>

As described in the National Research Council volume and as reviewed in this article, Australia, the United States, and Canada have adopted somewhat different survey methodologies. Their varying approaches have implications for both the type and quality of data gathered. Australia, for instance, which has undertaken one of the most ambitious time-use collection efforts, is able to directly investigate how time is divided up be-

tween partners. Australia collects personal time diaries for all household members aged 15 and older in households with more than one person, as well as in households with one person. In these diaries, household members record how they spend their time as their day unfolds.<sup>5</sup> Time-use estimates collected this way have been found to be highly reliable.<sup>6</sup>

In comparison, a considerably more modest national time-use survey has been proposed by the U.S. Bureau of Labor Statistics (BLS, the Bureau). In the BLS survey, diary reports will be collected from *one* respondent per household, using a subsample of households that recently completed their final Current Population Survey (CPS) interview.<sup>7</sup> The reports will be obtained by means of a retrospective telephone interview, in which an interviewer asks the respondent about what he or she was doing over the course of the previous day. The response thus requires no more than a 24-hour recall capability on the part of the respondent. This approach also has been found to provide valid estimates and is considerably less expensive to implement than the Australian approach.<sup>8</sup>

One extremely useful feature of the BLS survey is that it will be possible to match the data from the diary with demographic and labor force information from the CPS. Unfortunately, the usefulness of the information gained will fall far short of that gleaned from the Australian survey because of the time diary approach used. To make mean-

Anne E. Winkler is associate professor of economics and public policy administration, Department of Economics, University of Missouri–St. Louis.

ingful intrahousehold comparisons, all respondents in a given household must report on events that occurred on the same day. Such data, however, are particularly difficult to obtain when a 24-hour retrospective survey is used, which explains why only one respondent per household is contacted.<sup>9</sup> Hence, the BLS data will make it possible to analyze, for instance, the use of time of a wife or a husband, *but not both*, in a given household.

Canada, by contrast, has taken what is termed here a “middle approach.” In the 1992 and 1998 Canadian General Social Survey, diary information is collected from one respondent per household, using a retrospective telephone interview, as in the BLS survey. However, as pointed out by Lorna Bailie in the National Research Council publication, the Canadian survey augments the data from the diary by also asking respondents direct, stylized questions about their own and their partners’ use of time in several unpaid activities.<sup>10</sup> Hence, the Canadian survey appears to have the advantage of eliciting some information about what is going on *within* families, although, as will be discussed, this approach has some important limitations.

This article more fully considers the Canadian “middle approach” and assesses its potential usefulness for the United States. Toward that end, the article draws upon relevant U.S. and Canadian studies and then analyzes some data on nonmarket time from the 1992–94 National Survey of Families and Households.

### Assessing the Canadian approach

In the 1992 and 1998 versions of the Canadian General Social Survey, respondents began the telephone interview by reporting on their activities during the previous day in a diary format. Later, they were asked stylized direct questions about their own unpaid activities and about those of their spouses; in effect, the respondents were thereby serving as proxy reporters. Notably, the survey also asked about the activities of opposite-sex cohabiting partners. For instance, in the 1992 version of the survey, respondents were asked the following questions:<sup>11</sup> (1) “Last week, did you spend any time doing housework, including cooking, cleaning, grocery shopping and laundry for your household?” and, if so, “for how many hours?” (2) Last week, did you do any unpaid work to maintain or improve your house, yard, or automobile?” and, if so, “for how many hours?” and (3) “Last week, how many hours did you spend looking after children who live in your household?” Next, respondents were asked identical questions about their partners (with “he/she” replacing “you” in the questions). In the 1998 survey, respondents were asked slightly different versions of these questions, although the questions about their partners’ activities remained the same.<sup>12</sup>

This section investigates the pros and cons of following

Canada’s lead and including similar types of stylized questions in the proposed BLS survey.<sup>13</sup> Notably, such questions are already included in several U.S. surveys. The National Survey of Families and Households, for instance, asks both husbands and wives a series of questions about their own and their partners’ unpaid activities. Similarly, the Panel Survey of Income Dynamics regularly asks respondents about their own and their spouses’ time spent in housework and, on occasion, has obtained self-reports from both.<sup>14</sup> These surveys, among others, have been utilized extensively to analyze the division of labor within the household for the 1980s and 1990s and have yielded useful information.<sup>15</sup>

Stylized questions require relatively little time to answer and are relatively inexpensive to collect, two features that support the argument to include such questions in the BLS survey as well. Also, because the questions refer to a 1-week period, they have the advantage of including all weekdays and the weekend, not just a single day.<sup>16</sup>

In addition, incorporating multiple measures of time use into the same survey has the important advantage of allowing for direct comparisons of the responses.<sup>17</sup> In the past, researchers using U.S. data have invariably had to rely on ad hoc comparisons in assessing bias—for instance, comparing diary data from one survey with stylized questions from another.<sup>18</sup> Information gleaned from stylized questions may also be useful in and of itself. For example, it has been argued that when it comes to child care, diary questions and stylized questions may actually separately identify two important, but fundamentally different, variables.<sup>19</sup>

The benefits of including stylized questions, however, depend on the quality of the questions being asked, as well as on their comparability with diary questions. As a case in point, it is critical that the survey questions that respondents answer about their own and their partners’ use of time have precisely the same wording, so as to permit meaningful comparisons of these reports for each couple. As mentioned, identical questions were asked in the 1992 Canadian survey, but not in the 1998 one, making the later survey far less useful for purposes of comparison.

An often-expressed concern about stylized questions is that respondents have to go through an extensive “cognitive process” in answering such questions and may have varying interpretations of the questions asked.<sup>20</sup> For instance, what specific tasks are subsumed under question (1), which asks about “housework?” This issue came to the fore in a recent study by Bernie Paille, in which he used the 1992 Canadian General Social Survey to compare respondents’ time-use estimates based on the stylized questions set forth at the beginning of this section with estimates based on diary information from the same survey. While most researchers have found that estimates from stylized questions are higher than those obtained from a time-diary approach, Paille found precisely

the opposite regarding time spent in housework. A partial explanation offered in his study is that respondents may not have counted shopping as part of housework in their response to question (1), thereby leading estimates based on that question to be considerably lower than the diary estimates (which included estimates of time spent shopping).<sup>21</sup> This example suggests that stylized questions must be worded as carefully as possible and should be more narrowly focused than in the Canadian survey.

Other standard concerns have been raised as well, both in the National Research Council publication and elsewhere. For instance, the stylized direct questions asked in the Canadian survey require that respondents recall events during the previous week, increasing the probability of recall error compared with its likelihood in a diary approach, which requires 24-hour recall at most.

Another concern is that direct-question estimates about unpaid activities, such as time spent reading to children, may partly reflect societal expectations about those activities.<sup>22</sup> Diary estimates are less likely to be subject to this type of bias because respondents are not prompted to record specific activities. Julie E. Press and Eleanor Townsley suggest further that the degree of bias in responses to stylized questions may differ for women and men due to “changing and uneven social perceptions of [their] appropriate domestic roles.”<sup>23</sup> For example, husbands may be especially inclined to overstate the number of hours they engage in housework because of societal expectations that they should be doing more of it.

Further, in answering stylized questions, respondents may provide estimates for times when simultaneous activities are being carried out. Indeed, for all these various reasons, direct-question estimates of total hours spent doing housework, obtained by summing up estimates of time spent performing specific tasks, may exceed the number of available (or reasonably available) hours in a week, as will be seen shortly in data from the National Survey of Families and Households. All told, researchers have almost invariably found that stylized questions overestimate time use, compared with the more reliable diary approach.<sup>24</sup>

While legitimate concerns about stylized questions have been raised and must be seriously considered, there is some evidence that the *ratio* of wives’ to husbands’ estimates of hours is fairly similar across survey methods.<sup>25</sup> Also, trends and patterns identified in estimates of absolute levels of hours of housework for men and for women, both employed and otherwise, have been found to be fairly consistent across survey methods.<sup>26</sup> Further, if stylized questions such as those used in Canada—with some modifications—were included in the proposed BLS survey, they would provide at least some indication of the intrahousehold allocation of nonmarket time, an issue that cannot be investigated at all with the currently suggested design.

Another important concern about stylized reports also must be considered: Can we reasonably rely on husbands’ responses about wives’ use of time in unpaid activities or wives’ responses about husbands’ use of time? Notably, this issue, which applies directly to the approach taken in the Canadian survey, as well as to other surveys, including the Panel Study of Income Dynamics and the National Survey of Families and Households, was not mentioned in the recent volume on time-use measurement by the National Research Council or in the reports by Statistics Canada reviewed herein.<sup>27</sup>

Mounting evidence indicates that estimates of time spent in housework differ, depending on who makes the report: the individuals themselves or proxy reporters. This difference suggests that the answer to the question about whether we can reasonably rely on husbands’ responses regarding wives’ use of time and wives’ responses regarding husbands’ use of time is “no” or, at best, “It depends.” Results based on data from the 1990s are presented shortly.<sup>28</sup> As might be expected, this issue is not unique to questions regarding housework or nonmarket time in general. Proxy reports and self-reports have been found to differ on issues as diverse as parents’ desired family size, wives’ performance as parents and spouses, and parental bequests to children, to name a few. One notable exception is responses to questions about educational attainment, which generally match up, but this is to be expected, because such information can be both readily and objectively ascertained.<sup>29</sup>

Psychologists and sociologists point to several reasons as to why self-reports and proxy (spousal) reports of housework hours obtained from stylized questions might differ. One reason is egocentric bias; that is, individuals tend to recall a greater proportion of their own housework activity than their spouses do.<sup>30</sup> It is not possible to say whether self-reports or proxy reports made by spouses are more accurate, but the two kinds of reports are expected to be correlated. As Sarah F. Berk and Anthony Shih point out, many household tasks are performed in clear view for spouses to see, and, they argue, perhaps as important, spouses tend to share similar views about gender roles in the household—views that also inform these reports.<sup>31</sup> Further, Berk and Shih argue that there is likely to be relatively stronger agreement regarding wives’ household activities because the home has been the traditional sphere for women and its norms and patterns are better established.

## Comparison of self- and spousal reports

An excellent data set that affords information on the degree to which self-reports and spousal reports on housework are reasonable proxies for one another is the National Survey of Families and Households.<sup>32</sup> The survey provides four reports on time spent by couples in housework: wives’ reports on

their own housework hours; husbands' reports on their own housework hours; husbands' reports about their wives' housework hours; and wives' reports about their husbands' housework hours. These reports have been compared and analyzed in a number of studies.<sup>33</sup> Following is a similar analysis, pointing to the patterns and findings that are most relevant in assessing the usefulness of the Canadian survey.

The National Survey of Families and Households is a nationally representative survey of households that was first conducted in 1987–88. The survey had a sample of 13,007 respondents. Partners and spouses of respondents were interviewed as well. In the second wave, conducted from 1992 to 1994, the respondents were reinterviewed. Response rates were 82 percent for main respondents and 86 percent for partners.<sup>34</sup> In the 1992–94 wave, which makes up the data to be analyzed shortly, there were 5,751 married respondents. To create a sample of matched husbands and wives, the analysis includes only those couples for whom survey data on both spouses are available (5,001). The sample was further restricted to those couples in which both spouses are age 25 or older (4,894).

In the survey, information on time spent on housework was collected for nine specific tasks, based on the recall of the respondent (or partner) to the following question: "Write in the approximate number of hours per week that you, your spouse/partner, or others in the household normally spend doing the following things." The tasks that follow are preparing meals; washing dishes and cleaning up after meals; housecleaning; shopping for groceries and other household goods; washing, ironing, and mending; outdoor and other household maintenance tasks; auto maintenance and repair; paying bills and keeping other financial records; and driving other household members to work, school, or other activities. Total weekly housework hours are computed by summing up the time spent in each of these nine tasks. For a small fraction of the sample (under 4 percent), the number of hours of housework they engaged in totaled in excess of 100 per week, but were capped at 100.<sup>35</sup> The final sample analyzed in this article (3,662) includes only those couples with "complete" information on hours of housework, where "complete" information is defined as information on all nine housework tasks for all four reports.<sup>36</sup> Weights provided in the survey are used to make the estimates nationally representative.

As shown in table 1, wives estimate that they spend 37.2 hours per week, on average, engaged in the housework tasks described in the previous paragraph. Similarly, husbands report that their wives spend nearly that much time doing housework, namely, 36.9 hours. The median difference in husbands' and wives' reports about how much time wives spend on housework tasks is zero. These findings suggest that who makes the report regarding wives' activities matters little when wives' average time spent doing housework is the question at hand.

However, the fact that mean reports match up overall does

not necessarily indicate agreement in reports between husbands and wives who *live together*. Chart 1 is a plot of reports from matched pairs of husbands and wives regarding wives' housework hours. If there were perfect consensus among all spousal pairs (equal to a correlation coefficient of unity), all sample points would lie along a 45-degree line, running from the lower left corner to the upper right corner of the chart. The actual data show that, while the mean estimate of time spent on housework by wives (37 hours per week) virtually lies on this line, the scatter of reports around the line indicates that there is far less than perfect consensus *within* couples. In fact, the correlation of reports is only 0.46. There is, however, some question as to whether to interpret this correlation as high or low, because its magnitude is, in part, affected by the degree of precision required of the reporters.<sup>37</sup> In particular, spouses are being asked to determine their use of time within a 1-hour increment, which is fairly exacting. As a point of comparison, the correlation between husbands' and wives' estimates of wives' *share* of total time spent by the couple in housework (computed with the use of their reports on hours) is as high as 0.60, although still less than unity. What we can safely conclude from these data is that there is less spousal consensus about wives' time spent doing housework when we compare reports by husbands and wives living together than when we look at averages across all husbands and wives.

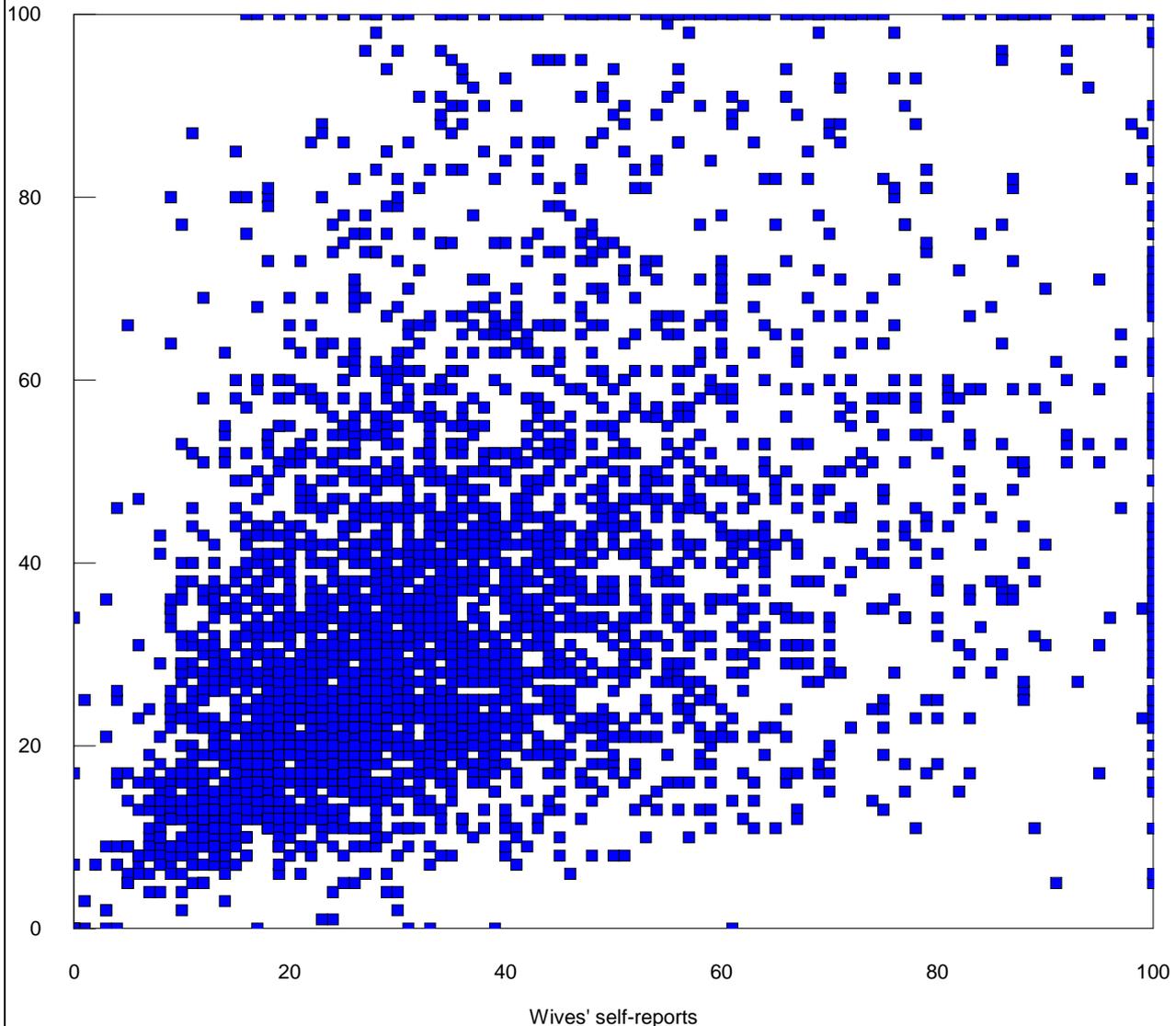
Chart 2 plots husbands' self-reports and wives' proxy reports regarding *husbands'* hours of housework. These reports are more concentrated near zero, because husbands do considerably less housework, on average, than wives. Analysis of the data indicates that the correlation of husbands' self-reports and their wives' proxy reports is 0.37, somewhat lower than the 0.46 correlation of reports about wives. Further, consensus is lacking even about mean hours husbands spend on housework tasks. Husbands estimate that, on average, they spend 20 hours per week doing household tasks, while their wives report a somewhat lower figure of 17.7 hours.

One important quantitative implication of this brief empirical analysis is that husbands and wives have very different assessments about the gender gap in weekly housework hours *within* married-couple households. As table 1 shows, husbands' reports about their own and their wives' hours indicate a 16.9-hour-per-week gender difference, while wives' reports about their own and their husbands' hours point to a 19.5-hour-per-week gender difference. Again, as noted earlier, it is not possible to discern which assessment is more accurate, but what we can say for sure is that researchers, such as those using the Canadian data, must carefully consider who is doing the reporting, as well as the possibility that such estimates may be inflated compared with diary estimates, regardless of who is the reporter.

THE PROPOSED BLS SURVEY WOULD BE CONSIDERABLY MORE

**Chart 1. Wives' housework hours**

Husbands' reports  
about wives



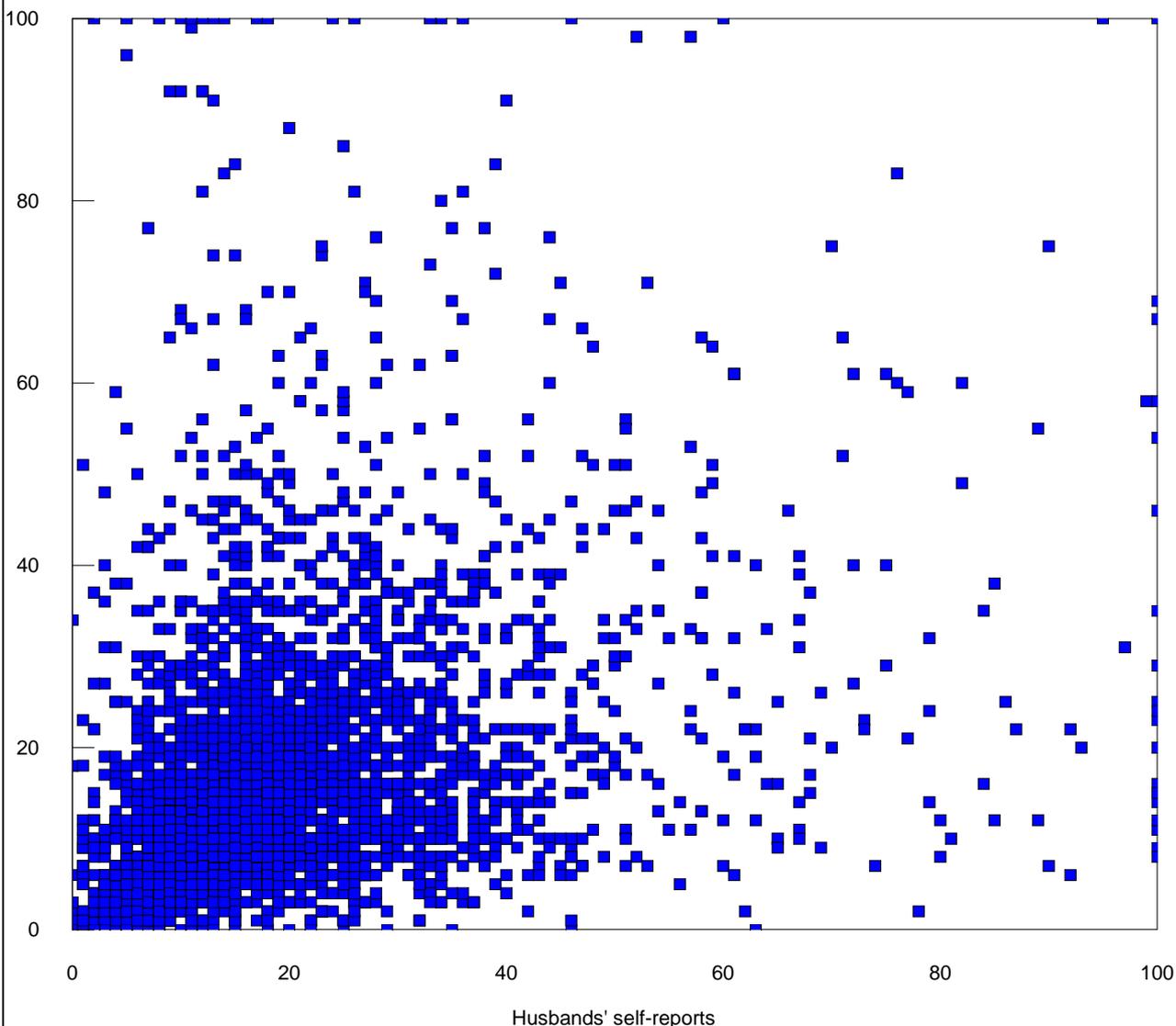
NOTE: Plot is based on 3,662 matched husband-wife pairs from the 1992–94 National Survey of Families and Households. Housework hours are capped at 100 per week.

USEFUL if it regularly collected time-use data on both partners living in the same household. These data would aid in achieving a better understanding of the effects of policies such as welfare reform, family leave, and child care on the well-being of couples and their children. Further, as surveys are repeated, the data would provide important information about the ways in which women's and men's roles in the household are changing and about the implications of those changes for children. The Australian approach of collecting diary information from

more than one household member does not appear to be a realistic option for the United States, given present budgetary constraints. By contrast, the approach taken by Canada, which is to collect diary information from one respondent per household and also ask respondents stylized questions about their own and their partners' use of time, is feasible for the United States and has merit, although it is by no means ideal. This approach would provide information about partners' division of labor in the household, but, unfortunately, not about other

**Chart 2. Husbands' housework hours**

Wives' reports about husbands



NOTE: Plot is based on 3,662 matched husband-wife pairs from the 1992–94 National Survey of Families and Households. Housework hours are capped at 100 per week.

household members' use of time. On the positive side again, including the two major time-use collection methods in the same survey would allow for valuable sensitivity testing.

Taking this two-pronged approach, though, raises legitimate concerns about biases in stylized data, including those which result from using proxy reports. For instance, this article has shown that estimates of the within-couple gender gap in housework differ significantly, depending on whether

wives or husbands are doing the reporting. In the short term, this means that findings must be interpreted carefully and possible biases must be acknowledged.

In the long term, detailed comparisons between responses to diary and stylized questions asked on the *same* survey should make it possible for researchers to improve the quality of the stylized questions and quantify the extent of bias, thereby increasing the reliability and usefulness of the styl-

**Table 1.** Weekly hours spent doing housework, responses based on stylized questions, National Survey of Families and Households, 1992–94

Category	Mean	Standard deviation	Median
Wives' housework hours:			
Wives' self-reports .....	37.24	22.15	33
Husbands' reports on wives .....	36.85	21.99	32
Husbands' housework hours:			
Husbands' self-reports .....	19.98	14.66	17
Wives' reports on husbands .....	17.73	15.49	14
Discrepancies in housework reports:			
Wives' housework hours .....	.394	22.92	0
Husbands' housework hours .....	12.26	16.94	2
Within-couple gender gap in housework hours, based on:			
Husbands' and wives' self-reports .....	17.26	25.76	214
Wives' reports .....	19.51	22.18	217
Husbands' reports .....	16.86	21.94	214
Wives' reported gap minus husbands' reported gap .....	12.65	21.25	2

<sup>1</sup>Discrepancy in reports is statistically significant at the 5-percent level in a two-tailed *t*-test.

<sup>2</sup>Median difference in housework reports (not difference in the medians) is computed.

NOTE: Estimates are drawn from 3,662 husband-wife pairs and are computed with the use of sample weights.

ized-question reports.<sup>38</sup> Stylized questions could also be asked about other household members, including seniors and children, but the same caveats would apply—indeed, perhaps even more so—with respect to using proxy reports.

While the discussion and analysis presented in this article have focused largely on married couples, data should also be collected on the intrahousehold allocation of time among unmarried couples, in light of the increasing prevalence of that arrangement. For instance, as of the mid-1990s, no less than 40 percent of women aged 15 to 44 had cohabited for some period, although such arrangements tend to be of short duration, because the couple breaks up or marries.<sup>39</sup>

In conclusion, stylized questions regarding spouses' activities have been included in the Canadian General Social Survey and in several U.S. surveys and have been found to provide useful information. If these questions were included in the proposed BLS survey, they would provide at least some indication of the intrahousehold allocation of nonmarket time between partners in the same household, an issue that the Bureau cannot investigate with its diary approach. □

## Notes

ACKNOWLEDGMENTS: This article has benefited from discussions with Michael Allison, Jennifer Coats, Marianne Ferber, Thomas Ireland, Sharon Levin, Robert Pollak, Shirley Porterfield, David Rose, and Robert Sorensen. I am grateful to Statistics Canada for providing needed survey information. All errors are mine alone.

<sup>1</sup> See Linda L. Stinson, "Measuring how people spend their time: a time-use survey design," *Monthly Labor Review*, August 1999, pp. 12–19; Mary Joyce and Jay Stewart, "What can we learn from time-use data?" *Monthly Labor Review*, August 1999, pp. 3–6; Michael Horrigan and Diane Herz, "A Study in the Process of Planning and Designing a Survey Program: The Case of Time-Use Surveys at the BLS" (Bureau of Labor Statistics, December 1999); and National Research Council (Michele Ver Ploeg, Joseph Altonji, Norman Bradburn, Julie DaVanzo, William Nordhaus, and Francisco Samaniego, eds.), *Time-Use Measurement and Research: Report of a Workshop* (Washington, DC, National Academy Press, 2000), chapter 6.

<sup>2</sup> National Research Council, *Time-Use Measurement and Research*, chapter 5.

<sup>3</sup> These and many other uses are described in National Research Council, *Time-Use Measurement and Research*, chapters 1 and 5.

<sup>4</sup> Timothy M. Smeeding, "Time and Public Policy: Why Do We Care and What Instruments are Needed?" paper presented at the Conference on Time Use, Non-Market Work and Family Well-Being, Washington, DC, November 20–21, 1997.

<sup>5</sup> This description is from National Research Council, *Time-Use Measurement and Research*, chapter 4.

<sup>6</sup> For evidence, see F. Thomas Juster and Frank P. Stafford, "The Allocation of Time: Empirical Findings, Behavioral Models, and Problems of Measurement," *Journal of Economic Literature*, June 1991, pp. 471–522.

<sup>7</sup> Horrigan and Herz, "A Study in the Process of Planning and Designing." The Current Population Survey (CPS) is a monthly survey of about 50,000 households conducted by the Bureau of the Census for the Bureau of Labor Statistics. The survey has been conducted for more than 50 years.

The CPS is the primary source of information on the labor force characteristics of the U.S. population. The sample is scientifically selected to represent the civilian noninstitutional population. Respondents are interviewed to obtain information about the employment status of each member of the household 15 years of age and older. However, published data focus on those aged 16 and older. The sample provides estimates for the Nation as a whole and serves as part of model-based estimates for individual states and other geographic areas.

Among the data obtained from the CPS are estimates of employment, unemployment, earnings, hours of work, and other indicators. These estimates are available by a variety of demographic characteristics, including age, sex, race, marital status, and educational attainment, and also by occupation, industry, and class of worker. Supplemental questions to produce estimates on a variety of topics, including school enrollment, income, previous work experience, health, employee benefits, and work schedule, are also often added to the regular CPS questionnaire.

<sup>8</sup> For evidence regarding the validity of the approach, see Juster and Stafford, "The Allocation of Time." Regarding cost, see Stinson, "Measuring how people spend their time."

<sup>9</sup> Stinson, "Measuring how people spend their time." In addition, a pilot survey in Canada examined collecting diaries from more than one household member by phone, but found that the response rates were unacceptably low. (See National Research Council, *Time-Use Measurement and Research*, p. 30.)

<sup>10</sup> National Research Council, *Time-Use Measurement and Research*, chapter 4.

<sup>11</sup> The questions were obtained directly from *General Social Science Time Use Questionnaire*, GSS 7–2 (Ottawa, Statistics Canada, 1992).

<sup>12</sup> Specifically, the 1998 survey asked respondents the following questions: (1) "Last week, how many hours did you spend looking after one or more of your own children or the children of others, without pay?" (2) "Last week, how many hours did you spend doing unpaid housework, yard work, or home maintenance for members of your household or others?" and (3) "Last week, how many hours did you spend providing unpaid care or assistance to one or more seniors?" These questions were obtained directly from *General Social Science*

*Survey*, GSS Cycle 12—Time Use Survey (Ottawa, Statistics Canada, 1998). It appears that the wording of the questions was made to match that of questions in the 1996 Canadian census, although because of the match, the questions asked of respondents to the 1998 survey are not identical to those asked of their spouses.

<sup>13</sup> For critiques of the stylized-question method, see Bernie Paille, "Estimating the Volume of Unpaid Activities in Canada, 1992: An Evaluation of Data from the General Social Survey," General Social Survey Working Paper No. 10 (Ottawa, Statistics Canada, January 1994); National Research Council, *Time-Use Measurement and Research*, chapter 4; Margaret Mooney Marini and Beth Anne Shelton, "Measuring Household Work: Recent Experience in the United States," *Social Science Research*, December 1993, pp. 361–82; and Juster and Stafford, "The Allocation of Time."

<sup>14</sup> Most studies investigating the division of labor using the National Survey of Families and Households have relied on husbands' and wives' self-reports, rather than on proxy reports, with the exception of a few methodological studies, which will be discussed shortly. In contrast, studies using the Panel Study of Income Dynamics have relied more often on proxy reports because self-reports for both spouses are available for only select years. Joni Hersch and Leslie S. Stratton, for instance, rely on husbands' proxy reports for their wives in "Housework, Fixed Effects, and Wages of Married Workers," *Journal of Human Resources*, spring 1997, pp. 285–307.

<sup>15</sup> For a worthwhile review, see Beth Anne Shelton and Daphne John, "The Division of Household Labor," *Annual Review of Sociology*, vol. 22, 1996, pp. 299–322.

<sup>16</sup> Paille, "Volume of Unpaid Activities."

<sup>17</sup> National Research Council, *Time-Use Measurement and Research*, chapter 5; and Marini and Shelton, "Measuring Household Work."

<sup>18</sup> See, for instance, Suzanne M. Bianchi, Melissa A. Milkie, Liana C. Sayer, and John P. Robinson, "Is Anyone Doing the Housework?" Trends in the Gender Division of Household Labor," *Social Forces*, September 2000, pp. 1–39; and Julie E. Press and Eleanor Townsley, "Wives' and Husbands' Housework Reporting: Gender, Class, and Social Desirability," *Gender and Society*, April 1998, pp. 188–219. For supporting evidence, see Marini and Shelton, "Measuring Household Work."

<sup>19</sup> Leroy O. Stone and Sandra Swain, "The 1996 Census Unpaid Work Data Evaluation Study" (Ottawa, Statistics Canada, 2000).

<sup>20</sup> Paille, "Volume of Unpaid Activities," p. 6.

<sup>21</sup> *Ibid.*, p. 12.

<sup>22</sup> For evidence, see Sandra L. Hofferth, "Family Reading to Young Children: Social Desirability and Cultural Biases in Reporting," paper presented at the National Research Council Workshop on Measurement of and Research on Time Use, May 27–28, 1998.

<sup>23</sup> Press and Townsley, "Wives' and Husbands' Housework Reporting," p. 188.

<sup>24</sup> In fact, one study found that estimates of housework hours are as much as 50 percent higher when obtained from stylized questions. (See Bianchi, Milkie, Sayer, and Robinson, "Is Anyone Doing the Housework?" See also Juster and Stafford, "The Allocation of Time"; Marini and Shelton, "Measuring Household Work"; and National Research Council, *Time-Use Measurement and Research*, chapter 4.)

<sup>25</sup> See, for instance, Bianchi, Milkie, Sayer, and Robinson, "Is Anyone Doing the Housework?" which compares 1995 diary data collected by the University of Maryland with data from the 1992–94 National Survey of Families and Households.

<sup>26</sup> See Francine D. Blau, Marianne A. Ferber, and Anne E. Winkler, *The Economics of Women, Men, and Work* (Upper Saddle River, NJ, Prentice Hall, 2002), especially chapter 3; and Marini and Shelton, "Measuring Household Work."

<sup>27</sup> Stone and Swain, "The 1996 Census," mention concerns about proxy reporting in the 1996 Canadian Census, but do not address the issue with regard to the case of stylized questions.

<sup>28</sup> For early evidence that estimates of time spent in housework differ, see Michael Ross and Fiore Sicoly, "Egocentric Biases in Availability and Attribution," *Journal of Personality and Social Psychology*, March 1979, pp. 322–36; Sarah Fenstermaker Berk and Anthony Shih, "Contributions to Household Labor: Comparing Wives' and Husbands' Reports," in Sarah Fenstermaker Berk (ed.), *Women and Household Labor* (Beverly Hills, CA, Sage, 1980); and Catherine E. Ross and John Mirowsky, "The Social Construction of Reality in Marriage: An Empirical Investigation," *Sociological Perspectives*, July 1984, pp. 281–300.

<sup>29</sup> Monica Biernat and Camille B. Wortmann, "Sharing of Home Responsibilities between Professional Employed Women and Their Husbands," *Journal of Personality and Social Psychology*, June 1991, pp. 844–60; Richard Williams and Elizabeth Thomson, "Can Spouses Be Trusted? A Look at Husband/Wife Proxy Reports," *Demography*, February 1985, pp. 115–22; Jere R. Behrman and Mark R. Rosenzweig, "In-Law Resources, Parental Resources and Distribution within Marriage," mimeograph, University of Pennsylvania, 1998; and Orley Ashenfelter and Cecilia Rouse, "Income, Schooling, and Ability: Evidence from a New Sample of Identical Twins," *Quarterly Journal of Economics*, February 1998, pp. 253–84.

<sup>30</sup> Ross and Sicoly offer four reasons, none of which need result from intentional deceit: (1) selective encoding and storage of information, (2) differential retrieval, (3) informational disparities, and (4) motivational influences.

<sup>31</sup> Berk and Shih, "Contributions to Household Labor."

<sup>32</sup> The survey affords only comparisons of housework, not asking at all about time spent in child care as a separate activity. However, the presence of children is reflected somewhat in the housework data that are collected, because children increase their parents' time spent doing laundry, cleaning up, and so on.

<sup>33</sup> See, for example, Yoshinori Kamo, "He Said, She Said: Assessing Discrepancies in Husbands' and Wives' Reports in the Division of Labor," *Social Science Research*, December 2000, pp. 458–76; and Marini and Shelton, "Measuring Household Work."

<sup>34</sup> See Pamela J. Smock and Wendy D. Manning, "Cohabiting Partners' Economic Circumstances and Marriage," *Demography*, August 1997, pp. 331–41.

<sup>35</sup> All studies using the National Survey of Families and Households cap housework hours in some way, either by choosing an absolute maximum, as is done here (see Theodore N. Greenstein, "Husbands' Participation in Domestic Labor: Interactive Effects of Wives' and Husbands' Gender Ideologies," *Journal of Marriage and the Family*, March 1996, pp. 585–95; and Kamo, "He Said, She Said"), or by adopting a percentile threshold (see Bianchi, Milkie, Sayer, and Robinson, "Is Anyone Doing the Housework?"). An absolute threshold is chosen in the current analysis so that husbands' and wives' hours are capped at the same number.

<sup>36</sup> The results presented do not appear to be sensitive to the decision to include only observations with "complete" housework records or to the decision to cap housework hours at 100. The studies by Kamo and by Marini and Shelton made somewhat different decisions and obtained fairly similar estimates of means and discrepancies in reports. (See Kamo, "He Said, She Said"; and Marini and Shelton, "Measuring Household Work.")

<sup>37</sup> Rebecca L. Warner, "Alternative Strategies for Measuring Household Division of Labor," *Journal of Family Issues*, June 1986, pp. 179–95.

<sup>38</sup> Similar points have been made by Norman Bradburn, cited in National Research Council, *Time-Use Measurement and Research*, chapters 5 and 6; and by Marini and Shelton, "Measuring Household Work."

<sup>39</sup> The 40-percent figure is from *Statistical Abstract of the United States: 1999* (Bureau of the Census, 2000), table 66. For some evidence on the division of labor in unmarried households based on the National Survey of Families and Households, see Scott J. South and Glenna Spitze, "Housework in Marital and Nonmarital Households," *American Sociological Review*, June 1994, pp. 327–47.