

Comparing childcare measures in the ATUS and earlier time-diary studies

The American Time Use Survey's measures of primary childcare and time with children are comparable with those in earlier U.S. time-diary studies, but the secondary childcare measure is not

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One of the most important trends to alter family life in the latter half of the 20th century was the increase in women's labor market opportunities and employment outside the home. This dramatic reallocation of women's time raised questions about whether increased maternal time in the labor market deprives children of necessary time with their parents. For this reason, a number of studies have examined trends in parental time spent caring for children.¹

There is a long tradition of measuring parental time in childcare in the United States using time-diary data.² The U.S. Department of Agriculture funded small scale nonnationally representative time-diary studies in the 1920s, 1960s, and 1970s,³ and other institutions have collected nationally representative time-diary data at roughly 10-year intervals, beginning in 1965.⁴ Most recently, the American Time Use Survey (ATUS), which is sponsored by the Bureau of Labor Statistics and conducted by the U.S. Census Bureau, began collecting data on a continuous basis in 2003. These data provide a rich source of information about how Americans spend their time—including time spent caring for children.

Most time-diary studies use similar data collection methods. Respondents are asked to sequentially describe what they did during a 24-hour period (the "diary day"), which is

often the previous day. Each time period for which there is a separate activity reported is an "episode." For each episode, respondents are asked to report what they were doing (their primary activity), how long they were doing it, who was with them, and where they were. Some time-diary studies also ask respondents to report what else they were doing during the episode, which is coded as the secondary activity. When the respondent reports doing more than one activity, the primary activity is the one that the respondent indicated was the main activity, although it is the convention in time-diary studies that traveling—even when done in conjunction with another activity, such as feeding a child—is always considered the primary activity.⁵

Time-use researchers have developed three concepts to measure parental investments in childcare: primary childcare, secondary childcare, and time spent with children. *Primary childcare* is childcare that is done as the respondent's primary activity and typically includes activities in which a parent is directly engaged in caregiving or activities that promote children's well-being. *Secondary childcare* is time spent doing childcare as a secondary activity. To avoid double counting parents' time, estimates of secondary childcare typically exclude episodes for which

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the primary activity was childcare. Secondary childcare activities can include talking or reading to a child while doing something else, but could also include “looking after” a child. *Time spent with children* is measured using the “who-with” information from the time diary and includes time spent in activities during which a child was present, but not necessarily participating in the respondent’s activity. This tends to be a more expansive measure of childcare because it includes time spent in activities other than primary or secondary childcare.

With the introduction of the ATUS, researchers have been eager to compare the ATUS to earlier time-diary studies. The ATUS definitions of primary childcare and time with children are essentially the same as those used in earlier time-diary studies, and the data in all of the surveys were collected using the time-diary approach described above. The ATUS gives more explicit instructions for collecting information on who is with the respondent during the episode,⁶ but the differences in methodology are relatively small. Therefore, we would expect any differences in estimates of these two measures from the ATUS and the earlier time-diary studies to be the result of true changes in behavior, rather than methodological differences. The ATUS approach to collecting secondary childcare is a departure from the approach used in the earlier time-diary studies that collected secondary activities, and some authors have noted that the secondary childcare estimates from the ATUS are much larger than the activity-based estimates of secondary childcare in the earlier studies.⁷ We hypothesize that much of this difference is due to the combined effect of the difference in concept and the difference in methodology.

In this article, we compare the three childcare measures—primary childcare, secondary childcare, and time with children—in the ATUS to the corresponding measures from a recent time-diary study that collects secondary childcare using the “What else were you doing?” approach. We confirm that measures of primary childcare and time with children are similar between the two surveys and illustrate the differences between the two approaches to collecting secondary childcare.

Secondary childcare in the ATUS and earlier studies

In the earlier time-diary studies that collected secondary activities, secondary childcare information was collected via the “What else were you doing?” question. The ATUS does not ask this question. However, because of the interest in measuring the amount of time people spend “looking after children,”⁸ the ATUS development team decided to

collect information on this more passive form of childcare using questions modeled after those in Statistics Canada’s General Social Survey.⁹ These questions, which are asked after the time diary has been completed, ask respondents to report times and episodes during the diary day in which a child under age 13 was “in your care.”¹⁰ The “in your care” concept of secondary childcare is a more passive—and a more encompassing—notation of childcare than the activity-based concept used in the past. Times when the respondent is actively engaged in secondary activities with children would also be considered times when children are “in your care,” while the reverse is not necessarily true.

Exhibit 1 shows a sample time diary and illustrates the differences between the ATUS measure of secondary childcare and the measure used in previous time-diary studies. In episode 1, the respondent was taking the train and reading to a child. In both the ATUS and earlier time-diary studies, “taking the train” would be considered the primary activity. In the earlier time-diary studies, “reading to a child” would have been captured by the “What else were you doing?” question and recorded as “talking and reading to children,”¹¹ whereas the ATUS identifies this only as time when a child under age 13 was in the respondent’s care. Episode 2, in which the respondent was working while looking after a child, is similar. Both the ATUS and the earlier studies would consider “work” to be the primary activity and “looking after a child” to be the secondary activity. The much higher estimates of secondary childcare time in the ATUS suggest that very little of this passive childcare was captured in earlier time-diary studies.

There are also two methodological differences between ATUS and earlier studies that may have led to differences in what is included in secondary childcare. First and foremost, the “What else were you doing?” question in earlier time-diary studies is open-ended, whereas the “in your care” question is closed-ended. The “What else were you doing?” question was intended to allow respondents to report any type of secondary activity—not just childcare. The emphasis is clearly on activities, and nothing in the question directs respondents to report passive childcare. If information about a specific topic is desired, closed-ended questions are typically more reliable.¹² The “in your care” question makes it clear to respondents that they are being asked to report about passive childcare.¹³

The second methodological difference is that the “in your care” questions are asked after the time diary has been completed in ATUS, whereas the “What else were you doing?” question was asked for each episode in the earlier time-diary studies. It is not clear how this differ-

Exhibit 1. Sample time diary and differences in coding between previous U.S. time-diary studies and the American Time Use Survey

Episode number	Start time	Stop time	What the respondent was actually doing	Previous U.S. time-diary studies ¹			American Time Use Survey ²		
				Primary activity	What else were you doing?	Who with?	Primary activity	Was a child under 13 in your care?	Who with?
1	12:00	12:45	Taking the train and reading to a child	Travel to and from work	Talking and reading to child	Child	Travel related to work	Yes	Child
2	12:45	5:00	Work and looking after a child	Work	Childcare if reported	Child	Work	Yes	Not asked
3	5:00	5:45	Taking the train home with a child	Travel to and from work	Childcare if reported	Child	Travel related to work	Yes	Child
4	5:45	6:15	Helping a child with homework	Helping and teaching child	None	Child	Homework (household children)	Yes	Child
5	6:15	7:00	Making dinner while looking after a child	Food preparation	Childcare if reported	Child	Food and drink preparation	Yes	Child

¹ Primary childcare = 30 minutes; Secondary childcare (upper bound) = 6 hours 30 minutes; Secondary childcare (lower bound) = 45 minutes; Time with children = 2 hours 45 minutes (excludes episodes where primary activity is sleeping, grooming, work, personal activities, could not remember, or refused to answer).

² Primary childcare = 30 minutes; Secondary childcare = 6 hours 30 minutes (excludes episodes where the primary activity is childcare); Time with children = 2 hours 45 minutes.

NOTE: For illustrative purposes, activity codes for previous U.S. time-diary studies are taken from the 2000 National Survey of Parents (NSP). Previous time-diary studies did not all use consistent activity codes.

ence translated into differences in estimates, but ATUS respondents may have been less likely to distinguish between times when they were and were not looking after a child under age 13 and may instead report blocks of time or episodes during which they were looking after children.

About the data

For our comparisons, we use data from the 2003–04 ATUS and the 2000 National Survey of Parents (NSP), which was a survey conducted by the Survey Research Center at the University of Maryland and funded by the Alfred P. Sloan Foundation’s Working Families Program. The NSP was chosen because it is the most recent time-diary study that systematically collects secondary activities. We expect any differences in estimates between the 2000 NSP and the 2003–04 ATUS to be primarily due to differences in concepts or data collection because time-use estimates typically do not change much over short periods of time. Given that the procedures and questions used in the NSP are similar to those in the earlier time-diary studies, our assumption is that these comparisons show whether the ATUS data can be used in conjunction with earlier U.S. time-diary studies to generate meaningful statistics about changes in childcare time over the years.

The samples from both surveys are restricted to parents age 18 and older who had at least one own child under age 13 living in the household.¹⁴ All estimates are generated using sample weights that have been adjusted to ensure correct day-of-week representation.

Table 1 shows the distribution of parents by selected demographic characteristics for both the 2000 NSP and the 2003–04 ATUS. For the most part, parents across the two surveys have similar characteristics, although parents in the ATUS sample appear to be slightly older, more highly educated, and more likely to be married than those in the NSP sample.

The 2000 NSP. In 2000 and 2001, the University of Maryland Survey Research Center interviewed a national probability sample of 1,200 parents living with children under age 18.¹⁵ The time-diary data were collected in computer-assisted telephone interviews that detailed respondents’ primary activities from midnight to midnight of the previous day, their secondary activities, and who was with them during the activities.

Primary childcare: In the NSP, there are nine activity codes for childcare, but no distinction is made between childcare done for household and nonhousehold children. (See appendix 1.) Activities are coded as childcare only if the care was done for a child under age 18.

Secondary childcare: The activity codes for second-

Table 1. Demographic comparison of the 2000 NSP and the 2003–04 ATUS

Characteristic	Mothers		Fathers	
	NSP	ATUS	NSP	ATUS
Number of observations	573	6,154	369	4,287
Employed	65.2	64.7	93.0	91.5
Family characteristics:				
Percent married	68.8	73.5	86.9	91.5
Number of children under age 13	1.9	1.7	1.8	1.7
Percent with children under age 6	62.8	57.0	62.1	58.8
Number of children under age 6	1.0	.8	.9	.8
Education:				
Less than high school	15.3	13.1	17.9	12.7
High school graduate	33.6	30.0	34.1	30.1
Some college, no degree	28.1	27.1	24.6	24.4
College graduate	23.0	29.8	23.4	32.9
Age:				
18–24	14.8	9.8	9.6	3.9
25–34	38.4	41.2	27.8	33.3
35–44	38.0	39.0	44.5	45.8
45–54	7.6	9.4	15.3	15.3
55 and older	1.2	.6	2.8	1.7

NOTE: The sample for both surveys is restricted to parents age 18 and older who had at least one child under age 13 living in the household.

SOURCE: Authors' calculations from the 2000 National Survey of Parents and 2003–04 data from the American Time Use Survey.

ary childcare in the NSP are the same nine codes used for primary childcare. To avoid double-counting time, estimates of secondary childcare in this article exclude episodes when the primary activity was childcare. Also, to make the measure more comparable to the ATUS, episodes are considered out of scope if the respondent was sleeping. Secondary childcare, like primary childcare, refers to the care of children under age 18, and it is impossible to separate out care for children under age 13 as is done in the ATUS.

Time with children: Time with children was calculated using the “who-with” information collected during the diary. Inspection of the NSP data revealed that the probes for the “who-with” question were not consistently applied by interviewers. In some cases, respondents did not report being with a child under age 18, even though it was clear from the verbatim response that a child was present. To illustrate: children were present during about 72 percent of primary childcare episodes in the NSP data, but in 90 percent of primary childcare episodes in the ATUS data. To make the time with children measure more comparable to the ATUS measure, we calculated time with children as the sum of time spent with children, time in primary childcare activities, and time in

secondary childcare activities, and then we adjusted the data to eliminate double counting.¹⁶ We also excluded episodes when the respondent was sleeping, grooming, engaging in personal or private activities, working at a job, could not remember, or refused to answer, because the ATUS does not collect “who-with” information for these activities.

The 2003–04 ATUS. The ATUS is a large nationally representative sample that is drawn from households that have just completed participation in the Current Population Survey (CPS). The sample size of the pooled 2003–04 ATUS data is about 35,000 observations, which is reduced to about 10,400 observations after imposing our sample restrictions.¹⁷ Time-diary data were collected through computer-assisted telephone interviews, and the “diary day” was from 4 a.m. the previous day to 4 a.m. on the interview day, rather than from midnight to midnight as in the NSP.

Primary childcare: As in the NSP, an activity in the ATUS was only coded as primary childcare if it was done for a child under age 18. The ATUS coding lexicon is more detailed than that used in the NSP, having 23 different primary childcare activity codes for household

Table 2. Comparison of primary childcare, time with children, and secondary childcare, 2000 NSP and 2003–04 ATUS

Childcare measure	2000 NSP	2003–04 ATUS
Hours per day spent by parents—		
In primary childcare:		
All	1.73	1.84
Fathers	1.15	1.14
Mothers	2.10	2.32
With children under age 18:		
All	6.30	6.28
Fathers	4.67	4.82
Mothers	7.35	7.31
In secondary childcare with children under age 18:		
All	.77	...
Fathers	.39	...
Mothers	1.02	...
In secondary childcare with children under age 13:		
All	...	5.83
Fathers	...	4.47
Mothers	...	6.78
Percent of parents reporting—		
Doing any primary childcare:		
All	74.5	75.0
Fathers	59.8	60.5
Mothers	84.0	85.1
Any time with children under age 18:		
All	96.0	95.4
Fathers	92.4	92.1
Mothers	98.3	97.7
Doing any secondary childcare with children under age 18:		
All	36.8	...
Fathers	22.2	...
Mothers	46.2	...
Doing any secondary childcare with children under age 13:		
All	...	89.5
Fathers	...	81.7
Mothers	...	95.0

NOTE: The sample for both surveys is restricted to parents age 18 and older who had at least one child under age 13 living in the household. In order to make the NSP measures of time with children comparable to the ATUS, reports of children present during episodes coded as sleeping, grooming, personal activities, working at a job,

don't know, or refused are considered out of scope. Similarly, episodes of sleep done in conjunction with secondary childcare in the NSP are considered to be out of scope.

SOURCE: Authors' calculations from the 2000 National Survey of Parents and 2003–04 data from the American Time Use Survey.

children and 23 for nonhousehold children—46 codes total. (See appendix 1 for a crosswalk between the two sets of childcare codes.) Even though the ATUS codes are more detailed, the types of activities considered to be pri-

mary childcare are very similar in the two surveys. As previously mentioned, childcare reported in the NSP did not distinguish between whether the care was for household or nonhousehold children. Therefore, we combined the

care of both household and nonhousehold children in the ATUS estimates of childcare time to make this measure more comparable to the NSP.

Secondary childcare: As noted earlier, the secondary childcare measure is derived from the “in your care” questions. We excluded times when the respondent reported doing primary childcare, times when the respondent was asleep, and times when all household children under age 13 were asleep.¹⁸

Time with children: Time with children was calculated using the “who-with” information collected in the diary. The “who-with” question identifies all household members (and own nonhousehold children) by household roster number, so it is possible to determine the exact age of household members who were present during each activity. For nonown nonhousehold children, it is possible to determine only if they are under age 18. As noted earlier, the ATUS definition of being “with” the respondent is more specific than the one used in the NSP. Time with children includes all time that the respondent reported being with any child under age 18 (except for the activities for which the “who-with” questions are not asked: sleeping, grooming, personal activities, working at a job, could not remember, and refused to answer).

Childcare in the ATUS and the NSP

Table 2 shows estimates of time spent in primary childcare, time spent in secondary childcare, and time with children. The estimates for primary childcare are remarkably similar between the two surveys. Parents spent about 1.7 hours per day in primary childcare in the NSP and about 1.8 hours per day in primary childcare in the ATUS. The average amount of time fathers spent in primary childcare was almost identical between the two surveys, while estimates for mothers were slightly higher in the ATUS. These small differences, which are neither substantively nor statistically significant, suggest that the two surveys are measuring essentially the same concept for primary childcare.¹⁹

The estimates of time with children are also strikingly similar. (See table 2.) In both surveys, parents are spending about 6.3 hours per day with children, and the largest difference (for fathers) is only 0.15 of an hour. These similarities suggest that the time-with-children measure from the NSP is approximately the same as time with children in the ATUS. Furthermore, the percentage of parents who report doing any primary childcare during the day or spending any time with children are remarkably similar between the two surveys.

The results shown in table 2 lead to the conclusion that the two surveys appear to be measuring the same concept for primary childcare and very similar concepts for time with children. Because of the similarities in these two measures, we proceed under the assumption that any differences in secondary childcare estimates are due to differences in concepts and methods that are specific to the measurement of secondary childcare, rather than any general survey effects.²⁰

The similarities between the two surveys end when we look at secondary childcare. Secondary childcare in the ATUS is more than 7 times as large as the NSP measure—5.8 hours per day versus 0.8 of an hour per day—even though the NSP measure includes secondary childcare for children under age 18, whereas ATUS restricts secondary childcare to children under age 13. Table 2 also shows large differences between the two surveys in the percentage of parents reporting any secondary childcare. More than twice as many parents report doing secondary childcare in the ATUS, compared with the NSP. These differences are consistent with our hypothesis that the ATUS captures more passive childcare than the NSP and other earlier time-diary studies.

A comparison of time spent with children to the sum of time spent in primary and secondary childcare highlights the difference in concepts between the two surveys. In the NSP, time spent with children is considerably greater than the combined time spent in primary and secondary childcare (6.3 hours vs. 2.5 hours). In contrast, in the ATUS time spent in primary and secondary childcare is larger than time spent with children (7.7 versus 6.3 hours). These differences reflect the difference between the activity-based concept in the NSP and the passive-care concept used in the ATUS.

In table 3, we perform an episode-level analysis to determine the extent to which secondary childcare time coincides with time spent with children in the two surveys. The episodes in each sample are divided into four groups defined by whether the respondent was providing secondary childcare and whether the respondent was with a child. Episodes were excluded from the analysis if the main activity was one of the activities for which the ATUS does not collect “who-with” information. It was also necessary to make some minor modifications to our definitions of “time with children.” Because of differences in the definition of secondary childcare in the two surveys, it was not possible to make these comparisons entirely consistent. In the NSP, secondary childcare data were collected for care of children under age 18, and the NSP portion of table 3 uses an age restriction of age 18. In the ATUS, secondary

Table 3. Distribution of episodes by presence of children and provision of secondary childcare, 2000 NSP and 2003–04 ATUS

Survey	Percent of all episodes				Total	Percent of secondary childcare episodes with a child under age 18 present	Percent of episodes with a child under age 18 present during which the respondent is providing secondary childcare
	Not providing secondary childcare		Providing secondary childcare				
NSP	Not with a child under age 18	With a child under age 18	Not with a child under age 18	With a child under age 18			
All	41.6	54.3	0.4	3.7	100.0	89.8	6.4
Fathers	50.1	47.7	.2	2.0	100.0	90.4	4.0
Mothers	38.0	57.1	.5	4.4	100.0	89.5	7.2
ATUS	Not with a child under age 13 ¹	With a child under age 13 ¹	Not with a child under age 13 ¹	With a child under age 13 ¹	Total	Percent of secondary childcare episodes with a child under age 13 present	Percent of episodes with a child under age 13 present during which the respondent is providing secondary childcare
All	36.5	3.8	16.0	43.8	100.0	73.3	92.1
Fathers	48.2	5.8	12.4	33.6	100.0	73.1	85.4
Mothers	30.1	2.7	17.9	49.3	100.0	73.3	94.9

¹ For nonhousehold children the age cutoff is 18.

NOTE: The sample for both surveys is restricted to parents age 18 and older who had at least one child under age 13 living in the household. The first four columns show the percentage of all episodes in each of the four cells defined by whether the respondent was providing secondary childcare and whether the respondent was with a

child. For example, the entry in the second column of the NSP panel indicates that in 54.3 percent of episodes the respondent was with a child under 18 but was not providing secondary childcare.

SOURCE: Authors' calculations from the 2000 National Survey of Parents and 2003–04 data from the American Time Use Survey.

childcare data were collected for care of children under age 13, so the ATUS portion of the table uses age 13 as a comparison point. For nonhousehold children, we had to maintain the under age 18 restriction because ATUS does not allow any finer distinction.²¹ In table 3, the first four columns show the fraction of episodes in the four cells, where the entries in each row sum to 100 percent. For example, the first column shows that in the NSP, the respondent was not providing secondary childcare and was not with a child under age 18 in 41.6 percent of episodes.

Summing the third and fourth columns in table 3 shows that respondents report doing secondary childcare in about 4 percent of all episodes in the NSP, compared with 60 percent of episodes in the ATUS. When respondents provide secondary childcare, a child is present about 90 percent of the time in the NSP, but only 73 percent of the time in the ATUS (the next to last column). Finally, when respondents are with children, they provide secondary childcare in 92 percent of episodes in the ATUS, compared with only 6 percent of episodes in the NSP (the last column).²²

Putting together the results in tables 2 and 3, it is clear that the secondary childcare measures in the two surveys are very different from each other. The fact that children under age 18 are present during nearly all secondary childcare episodes in the NSP is consistent with an activity-based concept, while the lower percentage in the ATUS is more consistent with a passive-care concept. NSP respondents could have reported that they were looking after children as a secondary activity, but it appears that they rarely did so. Almost 90 percent of parents in the ATUS reported doing some secondary childcare on their diary day (table 2), and parents provided secondary childcare nearly all of the time they were with children under age 13 (table 3); these two facts are also consistent with the passive-care concept. Additional support for the activity-based concept in the NSP comes from the fact that a much smaller fraction (30 percent) of parents in the NSP reported providing secondary childcare, along with the fact that most of the time spent with children in the NSP does not involve secondary childcare.

THE COMPARABILITY OF THREE CHILDCARE MEASURES—primary childcare, secondary childcare, and time with children—between the ATUS and earlier U.S. time-diary studies was examined in this article. We used the NSP to represent the earlier time-diary studies because it is recent and used the same methods to collect secondary childcare as earlier studies. The ATUS and the NSP have similar concepts and use similar methods for collecting primary childcare and time with children, but they differ markedly on both counts with regard to secondary childcare. The secondary childcare concept in the NSP and earlier time-diary studies is activity-based, and the data are collected using an open-ended question, “What else were you doing?” that was asked for each activity. In contrast, the ATUS concept is passive and is collected using closed-ended questions that specifically ask respondents to report times and activities

during which a child under age 13 was “in your care.”

Primary childcare and time with children estimates from the ATUS and the NSP were nearly identical, although it was necessary to adjust the NSP data to compensate for inconsistent probing by interviewers. The secondary childcare measures from the two surveys were very different—5.8 hours per day in the ATUS versus 0.8 hours per day in the NSP—and the differences were consistent with the conceptual and methodological differences between the two surveys. Thus, we conclude that when comparably defined, the primary childcare and time with children measures in the ATUS can be meaningfully compared with the corresponding measures from earlier U.S. time-diary studies. Meaningful comparisons cannot be made between secondary childcare in ATUS and earlier U.S. time-diary studies. □

Notes

¹ Liana C. Sayer, Suzanne M. Bianchi, and John P. Robinson, “Are Parents Investing Less in Children? Trends in Mothers’ and Fathers’ Time with Children,” *American Journal of Sociology*, July 2004, pp. 1–43; and Suzanne M. Bianchi, “Maternal Employment and Time with Children: Dramatic Change or Surprising Continuity?” *Demography*, November 2000, pp. 139–54.

² Time-diary data, which describe a person’s activities on a given day, are considered to be more accurate for activities such as household work and childcare than are data gathered using stylized questions, which ask respondents to report about time spent on an activity over time, such as for a week (“About how much time do you spend taking care of children per week?”). See John P. Robinson, “The Validity and Reliability of Diaries versus Alternative Time Use Measures,” in F. Thomas Juster and Frank P. Stafford, eds., *Time, Goods, and Well-Being* (Ann Arbor, University of Michigan Survey Research Center, Institute for Social Research, 1985).

³ W. K. Bryant, “A Comparison of the Household Work of Married Females: The Mid-1920s and the Late 1960s,” *Family and Consumer Sciences Research Journal*, 1996, vol. 24, pp. 358–84.

⁴ The 1965 and 1975 time-diary studies were conducted by the Survey Research Center at the University of Michigan, and the 1985 and 1995 studies were conducted by the Survey Research Center at the University of Maryland. See Suzanne M. Bianchi, John P. Robinson, and Melissa A. Milkie, *Changing Rhythms of American Family Life* (New York, Russell Sage, 2006); and John P. Robinson and Geoffrey Godbey, *Time for Life: The Surprising Ways Americans Spend Their Time* (University Park, PA, Pennsylvania State University Press, 1999).

⁵ Common secondary activities include listening to the radio, watching TV, eating, or communicating, but in principle they could be anything that could be done as a primary activity (except travel).

⁶ In the ATUS, individuals are considered to be “with” the respondent if they were in the same room or if they accompanied the respondent at locations away from home. Earlier time-diary studies did not have explicit definitions.

⁷ Muriel Egerton, Kimberly Fisher, Jonathan I. Gershuny, and others, “American time use 1965–2003: The Construction of a Historical Comparative File, and Consideration of its Usefulness in the Construction of Extended National Accounts for the USA,” ISER Working

Paper 2005–28 (Colchester, University of Essex, December 2005); and Suzanne M. Bianchi, Vanessa R. Wight, and Sara B. Raley, “Maternal Employment and Family Caregiving: Rethinking Time with Children in the ATUS,” paper presented at the ATUS Early Results Conference, Bethesda, MD, Dec. 9, 2005.

⁸ Nancy Folbre, Jayoung Yoon, Kade Finnoff, and Allison Sidle Fuligni, “By What Measure? Family Time Devoted to Children in the United States,” *Demography*, May 2005, pp. 373–90.

⁹ The main criterion for the ATUS concept of secondary childcare is that the respondent must be able to provide assistance to the child if necessary. This implies that the respondent is in the general vicinity of the child and has a general idea what the child is doing. However, the respondent need not be in the same room as the child to be providing secondary childcare. Thus, the respondent may not have been “with” a household child under age 13 when providing secondary childcare at home—the child could have been in another part of the house or in the respondent’s yard. It is also possible, although not common, for the respondent to have been “with” a child under age 13 and not have provided secondary childcare. One way this could occur would be when one or more adults were present, and the respondent did not consider himself or herself to be looking after the child.

¹⁰ Separate questions are asked for the respondent’s children living in the household, respondent’s children not living in the household, other children living in the household, and other children not living in the household. For all but the last, the children’s names are filled in from the household roster.

¹¹ Previous U.S. time-diary studies used a variety of different codes, and the actual activity descriptions may have varied. However, previous studies would have identified the nature of secondary activities.

¹² Floyd J. Fowler, *Survey Research Methods*, Applied Social Research Methods Series, vol. 1 (Newbury Park, CA, Sage Publications, Inc., 1993).

¹³ Cognitive testing of the secondary childcare questions revealed that “in your care” best conveyed the passive childcare concept to respondents. See Lisa K. Schwartz, “The American Time Use Survey: cognitive pretesting,” *Monthly Labor Review*, February 2002, pp. 34–44.

¹⁴ “Own” children are either biological children, stepchildren, or ad-

opted children. Other relatives under age 18, such as grandchildren, would not be considered “own” children.

¹⁵ The response rate in the NSP was 64.0 percent.

¹⁶ This adjustment would tend to increase time with children relative to the ATUS, because all primary and secondary childcare time would be counted as having a child present, even though it appears that this is not always the case in the ATUS. As discussed in footnote 9, the respondent need not be “with” a child when providing secondary childcare in the ATUS. It is also possible, in both surveys, for a respondent to provide primary childcare without a child present. For example, the respondent may be driving to school to pick up a child. It is likely that the NSP misses some time with children for nonchildcare episodes, although we do not believe this effect is very large.

¹⁷ The response rate in the ATUS was 57.6 percent for 2003–04.

¹⁸ The last two restrictions were made because cognitive testing of the ATUS questions revealed some inconsistencies across respondents in how they answered the secondary childcare questions (some respondents included times when they or all household children under age 13 were asleep while others did not). For this reason, official estimates of secondary childcare exclude times when the respondent or all household children under age 13 were asleep. To determine when the household children were asleep, the respondents were asked when the first child under age 13 woke up and when the last child under age 13 went to sleep (naps are ignored).

¹⁹ Our conclusion that primary childcare is comparable between the ATUS and earlier time-diary studies is at odds with Egerton et al., who compared the 2003 ATUS to the earlier U.S. time-diary studies conducted in 1965, 1975, 1985, and 1992–94 (see Egerton and others, “American Time Use 1965–2003”). They noted that primary childcare “steeply increases” between the 1992–94 study and the 2003 ATUS, and concluded that while sample composition may explain some of the increase, “. . . it also seems likely that there is a strong instrument effect.” Our estimates using the same data combined with data from the 1995 University of Maryland time-diary study and the 2000 NSP lead us to believe that it is the 1992–94 data that are anomalous. Primary child-

care time fell by 1 hour per week between the 1985 and 1992–94 studies, but increased by about 2 hours per week between the 1992–94 and 1995 studies, by 3 hours between the 1995 and 2000 studies, and by 1.5 hours between the 2000 NSP and the 2003 ATUS. Thus, we agree that time spent in primary childcare did increase between 1985 and 2003, but it seems more likely that there was a gradual increase between 1985 and 1995, rather than a decrease between 1985 and 1992–94 and a sharp increase between 1992–94 and 1995.

²⁰ One difference between the surveys that we have not discussed is the difference in the procedures used to contact respondents. The NSP called respondents every day until the respondent was reached, while the ATUS used a designated-day approach. It has been shown that the NSP approach tended to oversample days when the respondent was away from home (see Jay Stewart, “Assessing the Bias Associated with Alternative Contact Strategies in Telephone Time-Use Surveys,” *Survey Methodology*, December 2002, pp. 157–68). This could bias estimates of childcare upward if childcare tends to be done away from home and downward if childcare tends to be done at home. Taking a quick look at the data, it appears that the two datasets do not differ much with respect to where primary childcare activities occurred. About 59 percent of primary childcare episodes (77 percent of time) were at home in the NSP, compared with about 57 percent (73 percent of time) in the ATUS. This suggests that the difference in contact procedures did not have a large effect on the childcare measures.

²¹ Our inability to restrict time with children to children under age 13 for nonhousehold children in ATUS likely made very little difference. Very little secondary childcare was done for nonhousehold children, and ATUS estimates generated using only data on household children were virtually identical.

²² We noted earlier that probes for the “who-with” questions were inconsistently applied in the NSP. However, we do not believe this effect to be large. For example, the percentage in the last column of table 3 for the NSP would be at most 1 percentage point higher if we were to assume that a child was present during all episodes of secondary childcare.

Appendix 1. Primary childcare codes in the 2000 NSP and the 2003–04 ATUS

NSP		ATUS	
Activity code	Activity description	Activity code	Activity description
20	Time spent on baby care		[same as NSP code 21, depends on age of child]
21	Time spent on childcare	030101	Physical care for household children
		030109	Looking after household children (as primary activity)
		030199	Caring for and helping household children, not elsewhere classified
		040101	Physical care for nonhousehold children
		040109	Looking after nonhousehold children (as primary activity)
		040199	Caring for and helping nonhousehold children, not elsewhere classified
22	Time spent on helping and teaching	030107	Helping/teaching household children (not related to education)
		030201	Homework (household children)
		030203	Home schooling of household children
		030204	Waiting associated with household children’s education
		030299	Activities related to household children’s education, not elsewhere classified
		040107	Helping/teaching nonhousehold children (not related to education)
		040201	Homework (nonhousehold children)
		040203	Home schooling of nonhousehold children
		040204	Waiting associated with nonhousehold children’s education
		040299	Activities related to nonhousehold children’s education, not elsewhere classified

See note at end of table.

Appendix 1. Continued—Primary childcare codes in the 2000 NSP and the 2003–04 ATUS

NSP		ATUS	
Activity code	Activity description	Activity code	Activity description
23	Time spent on talking and reading	030102	Reading to/with household children
		030106	Talking with/listening to household children
		040102	Reading to/with nonhousehold children
		040106	Talking with/listening to nonhousehold children
24	Time spent on indoor playing	030103	Playing with household children, not sports
		030104	Arts and crafts with household children
		040103	Playing with nonhousehold children, not sports
		040104	Arts and crafts with nonhousehold children
25	Time spent on outdoor play	030105	Playing sports with household children
		040105	Playing sports with nonhousehold children
26	Time spent on medical care for child	030301	Providing medical care to household children
		030302	Obtaining medical care for household children
		030303	Waiting associated with medical care of household children
		030399	Activities related to household children's health, not elsewhere classified
		040301	Providing medical care to nonhousehold children
		040302	Obtaining medical care for nonhousehold children
		040303	Waiting associated with medical care of nonhousehold children
		040399	Activities related to nonhousehold children's health, not elsewhere classified
27	Time spent on other childcare	030108	Organization/planning for household children
		030110	Attending household children's events
		030111	Waiting for/with household children
		030112	Picking up/dropping off household children
		040108	Organization/planning for nonhousehold children
		040110	Attending nonhousehold children's events
		040111	Waiting for/with nonhousehold children
		040112	Picking up/dropping off nonhousehold children
29	Time spent on travel related to childcare	170301	Travel related to caring for and helping household children
		170401	Travel related to caring for and helping nonhousehold children

NOTE: This crosswalk is not exact. For example, the ATUS does not determine whether the respondent was indoors or outdoors, so the mapping into NSP codes 24 and 25 were based on whether the activities are usually done indoors or outdoors. Also, there are two ATUS activity codes that are normally considered to be childcare that are not included in this crosswalk because there are no comparable codes in the NSP. These are "meetings and school conferences" for household (030202) and nonhousehold (040202) children. In the NSP, meetings and school conferences are coded under "time spent on child, youth, and family organizations" (67).