

Learning About How Americans Spend Their Time

Katharine G. Abraham, University of Maryland
Research and Policy Conference:
Food and Eating Consequences of Time Use Decisions
Economic Research Service and the Farm Foundation
July 13, 2004

- Research and policy applications of data on time use
- Time diary design and measurement considerations

Alternative Methods of Learning About Time Use

- Stylized questions:
 - CPS question on usual work hours: "How many hours per week (do you) usually work at (your) job?"
 - CPS supplement on volunteer activity: " How many weeks in the last year did you do volunteer activity for (reported organization)?" "In those weeks that you volunteered for (reported organization), how many hours per week did you do volunteer activities?"
 - PSID Child Development Supplement question for primary caregivers on reading to children: "How often do you read to (child)? Would you say never, several times a year, several times a month, about once a week, a few times a week or every day?"
- Time diaries
- Beeper studies
- Observational studies

Pros and Cons of Time Diaries versus Other Collection Methods

- Time diaries versus stylized questions:
 - Less risk of social desirability bias or recall problems
 - Avoid difficulty of saying what is "usual" or "typical"
 - Higher cost
- Time diaries versus beeper studies:
 - More risk of reporting errors
 - Less likelihood of certain activities not being reported because people do not want to be interrupted
 - Lower cost
- Time diaries versus observational studies:
 - More risk of reporting errors
 - Less risk of behavior being affected by fact someone is watching
 - Lower cost

Many Potential Applications of Time Diary Data

- Improved measurement of both paid and unpaid work activity
- Broader measures of national output and national well-being
- Improved understanding of economic and social behavior
- Richer policy analysis
- Better business decisions

Work Activity

- Answers to stylized questions may produce poor estimates of time spent in paid work. Time diaries should provide more accurate information.
- Time diaries provide information on unpaid work activity in addition to paid work activity. Time devoted to home production and volunteer activities of particular interest.
- Time diaries may provide information on when and where people are working.

National Output and National Well-being

- Failing to account for nonmarket production may distort trends in national output and comparisons of output across countries. Time diary data contribute to accounting for nonmarket production.
- Economic growth depends on both human and physical capital. Time diary data useful for measuring investments in human capital.
- Availability and uses of leisure time an important dimension of well being.

Economic and Social Behavior

- Parental time critical to children's development. Time diary data can tell us how much time mothers and fathers spend with their children and what they do during that time.
- There is great interest in the aging process. Time diary data can tell us, for example, about paid and unpaid work activity and about social isolation (time spent alone rather than with other people) among the older population.
- Time diary data can inform us about exercise patterns, an important input into the health of the population.

Two Illustrative Potential Policy Applications

- How has welfare reform affected the low income population?
 - Standard analyses focus on income and employment effects. Time diary data would allow researchers to study other effects, such as effects on the time mothers spend with their children
- How does public infrastructure construction affect commuting times?
 - Opening a new highway or a new subway line can be expected to affect commuting and employment patterns and time available for other activities among those who live nearby. Short-term effects may be different than long-term effects.

Business Decisions

- Information on leisure time activities for different demographic groups could help to identify potential demand for sports, recreation and entertainment products
- Information on time devoted to mundane household tasks could help to guide development of labor-saving devices

Ideal Coverage and Covariates Depend on Question

- Home production – Complementary information on other inputs (consumer durables, purchased inputs) and outputs actually produced.
- Investments in education – Data on time use for both children and adults in families with children; complementary information on other inputs (books in home, access to computers, etc.) and on later child outcomes
- Analysis of welfare reforms – Focus on low income population; complementary information on sources of income, including welfare benefits
- Business applications – Some demographic groups may be of greater interest than others; complementary information on current income and spending patterns

Familiar Tradeoff in Survey Design

- A specialized survey can collect exactly the information that is relevant for a particular research question ...
- ... but a general purpose survey may serve a wide range of research purposes adequately well at a far more affordable cost

A Brief History of Time Diary Collection in the United States

- Early efforts include USDA-sponsored studies that collected time diaries from farm housewives during the late 1920s and early 1930s
- National time use diary studies conducted at the University of Michigan in 1965, 1975-76, 1981, and 1985
- National time use diary studies conducted at the University of Maryland in 1992-94, 1998, and 2001
- Some other more specialized studies
- As of the late 1990s, no official general purpose statistics on how Americans spend their time

Other Countries Have Been Ahead of the United States

- Other countries began to produce periodic general purpose official statistics on time use a decade or more ago
 - Australia 1992, 1997, 2005-06
 - Canada 1986, 1992, 1998, 2005
 - Finland 1979, 1987-88, 1999-2000
 - Sweden 1984-85, 1990-91, 2000-01
- Harmonized European time use surveys will facilitate cross-country comparisons
- As in the United States, also some other more specialized studies
- See Kimberly Fisher, "Technical Details of Time Use Studies," Institute for Social and Economic Research, University of Essex [<http://www.iser.essex.ac.uk/mtus>]

The American Time Use Survey

- General purpose time diary covering the population age 15 plus
- Data collection began in January 2003.
- Survey sample drawn from CPS outgoing rotations.
- Steady state sample size of 1800 households per month. One respondent per household and current response rate of about 60 percent imply roughly 14,000 completed interviews per year.
- Each respondent asked about time use on a particular day. One interview per respondent.
- Standard covariates basically those collected as part of the core CPS but potential for adding short modules to collect other information on a rotating basis.

Some Design and Measurement Questions

- Respondent population
 - Current age range 15 plus; should range be extended to include children age 10 plus?
 - One respondent per household; should data be collected for multiple respondents?
- Data elements
 - Data for primary activities only (except for child care); should data be collected for simultaneous activities?
 - Covariates those contained in core CPS; what modules make sense and how should these be structured?
- Data quality
 - Does the ATUS adequately capture activities that occur in short bursts (e.g., turning over the laundry, snacking)?
 - Should we be concerned about nonresponse bias?

Moving Forward

- The ATUS can't answer every conceivable question about time use ... but it is an enormously flexible vehicle for answering many time use questions
- Large annual sample should support many subpopulation analyses
- Modules valuable for augmenting covariates
- Other survey vehicles more appropriate for answering questions that require information on multiple household members, longitudinal data or very detailed information
- Data quality questions should be a focus of research in the next few years