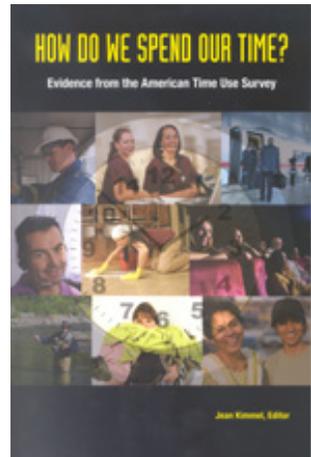

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Introduction

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Introduction

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Economics is about scarcity of resources and the choices people make in light of that scarcity. Perhaps the most obviously limited resource is time. There are only 24 hours in a day, 7 days a week, regardless of an individual's wealth or power or country of residence. Thus, each of us confronts the necessary choice of how to spend our time.

Economists have long been interested in the analysis of time use decision making. Studies of this nature have been limited until recently by a lack of quality time use data. In 2003, after years of study and preparation, the U.S. Bureau of Labor Statistics initiated the annual American Time Use Survey (ATUS). Each year, a randomly selected subsample of the outgoing rotation group of the Current Population Survey (CPS) will be asked to participate in the ATUS.¹ A randomly selected individual aged 15 or older will complete a 24-hour time diary. In this single-day diary, one adult per selected household describes his or her activities in 15-minute intervals. Reported activities are categorized by an activity lexicon that contains 406 distinct activities. Also provided are data on where the activity took place and with whom. The 2003 ATUS survey sample was the largest, with approximately 40,500 households surveyed. In the following years, the ATUS sample was reduced to approximately 26,000 for cost reasons. In each year of the ATUS, there are an even number of weekdays and weekend days sampled (ATUS User's Guide 2007).

In addition to the detailed time use survey, the ATUS data are supplemented with much of the data available in the CPS. Additionally, researchers have the capability to match ATUS individuals to the full CPS survey data to facilitate the examination of a broad array of time use behaviors across a variety of demographic categories. Although the first ATUS data did not become available to the broader research community until midyear 2005, countless papers have been written to date

using the data to analyze everything from time spent with children, education investments, computer use, and shopping.

There is some concern about response rates for the ATUS, as the rates have fallen since the onset of the survey. The ATUS response rate was 57.8 percent in 2003, 57.3 percent in 2004, 56.6 percent in 2005, and 55.1 percent in 2006. However, the concern is more acute for activities that might be correlated with the probability of survey response. For example, Abraham, Helms and Presser (2007) have shown that individuals who volunteer are substantially more likely to respond to the ATUS survey request, thus studies of volunteerism using the ATUS may not produce reliable findings.

Chapter 1, titled “The Time of Our Lives,” is written by Professor Daniel S. Hamermesh of the University of Texas at Austin. In this book opener, Hamermesh provides a broad overview of how economists talk about time and how economic analyses of time use can contribute to our understanding of human behavior. Hamermesh begins by aggregating the 406 separate time activities that can be reported on the ATUS into four composite activities: paid work, unpaid work, leisure, and tertiary activities (i.e., necessary activities such as sleep). He notes that comparing across gender in the United States, men and women perform approximately the same amount of total work; that is, the combination of paid and unpaid work. Additionally, while women perform more shopping and caregiving than men, men’s time devoted to these traditionally female activities has grown in recent years. Finally, he shows that workers in the United States devote more time to paid work than do workers in other developed countries.

Hamermesh then moves on to examine a variety of topics that can be studied with time survey data. First, he addresses the question of sleep to see if time spent sleeping is related to economic factors such as the individual’s hourly wage rate. He finds that, indeed, individuals with higher market wages, other things equal, are likely to devote less time to sleep than those with lower market wages. Then he looks at the timing of work; in particular, the timing of work across the day and the week and across one’s life cycle. He shows that workers in the United States perform more paid work on the weekends than do their European counterparts. Additionally, he examines the dramatic change in time allocation observed for individuals at the point of retirement and

discusses whether our society might resolve some of its projected future skilled labor shortage by facilitating a transition from full-time to part-time professional work, rather than the current necessity of complete labor force withdrawal. He explains that if fixed costs of work could be alleviated, workers at retirement age might be more likely to transition more gradually to an out of the workforce status, thereby enhancing their own happiness as well as lessening labor shortages.

Continuing on the theme of the timing of work, Hamermesh examines the work timing of spouses to determine if there is any link between leisure synchronicity and income. He finds that higher-income workers are better able to achieve this synchronicity. Hamermesh concludes his chapter with a discussion of the time crunch; that is, which workers are most likely to report not having enough time and why. He explains that it is not possible to outsource much of home production, thus the rich are not able to “buy themselves” out of much of these responsibilities. In other words, it is difficult to substitute goods for time, thus we would expect higher paid individuals to report the greatest time stress. He finds that this appears to be the case, thus the complaints about time are comparable to complaints about having too much money! He concludes this discussion with speculation about why women are more likely to complain about time than men. He suggests that the greater time discontent on the part of women may be due to the fact that they move across a larger number of activities on a single day, and these transitions are costly.

Hamermesh concludes his chapter with a call to arms, so to speak, for economists. While he asserts that “the creation of the ATUS as a continuing survey is the single most important data initiative in the labor area to occur in the 40 years” since he completed his doctoral degree, to exploit this unique opportunity will require that we “think like economists rather than to mimic sociologists.”

Time has value. Time removed from one activity to engage in another represents a loss of value of some sort in the original activity. Never has this fundamental point been more clear than with the transference of maternal time from time in the home to time in the paid workforce. As mothers increased their time commitments to the paid workforce throughout the past century, they necessarily withdrew time from unpaid commitments, including housekeeping and caregiving.

The national and even international import of this transference may not seem immediately obvious, but one must look only at the import placed on the measurement of national economic activity to realize that as a once freely provided activity becomes a market purchased good (e.g., purchased housekeepers and babysitters), there are substantial implications for the measurement of economic activity.

Nancy Folbre and Jayoung Yoon, both of the Department of Economics at the University of Massachusetts at Amherst, address this important but complex topic in their chapter titled “The Value of Unpaid Child Care in the United States in 2003.” As the authors explain, interest on the part of economists in the value of caregiving extends beyond even concern about measurement of economic activity. Indeed, the care and nurturing of children is the first component in the creation of productive adults. Thus, caregiving is interesting for its human capital investment component because in a sense, children are public goods.

Folbre and Yoon explore two of the difficulties inherent in measuring the value of caregiving: measuring the time involved and assigning a dollar value to this time. Any parent who has been unable to run an errand because he/she is responsible for a sleeping child knows that time devoted to caregiving involves much more than the time one spends in direct interaction. Thus, caregiving is more of a responsibility than an activity. That said, perhaps the best way to capture the full spectrum of caregiving is a time use survey. Using the American Time Use Survey, the authors define a caregiving continuum using increasingly broad measurements for the time devoted to children. These various measures are possible because the ATUS includes information on the respondent’s activities as well as information concerning who is present at the time of the activity. Additionally, the ATUS permits caregiving to be reported as a secondary activity. Using these data, the authors construct three categories within the caregiving continuum: direct care (in which the mother is involved directly with her children), indirect care (which includes housework and household management on the behalf of children), and supervisory care (which includes the “nonactive” but responsible minutes of caregiving).

For each of these types of caregiving, the authors assign a monetary value to the time involved based on the replacement cost approach.² In other words, the authors assign the dollar value that would have to be

paid for someone other than the mother to perform the tasks with or for her children. Along this vein, the most expensive type of care is developmental care; for example, the time a mother would spend reading to her child. The least expensive type of care is simply being responsible for a child who may or may not even be in the same room as the care provider.

Folbre and Yoon conclude that for married women with children under the age of 12, caregiving exceeds the value of their average market earnings. Additionally, the money that parents spend purchasing goods and services for their children is valued less than the time parents devote to their children. As they explain, there are policy implications of the recognition of the substantial value of parental time inputs in their children. Specifically, when time inputs are incorporated, the value of public contributions to child rearing (e.g., tax deductions for children) represent only approximately 4–9 percent of the average cost of raising a child, rather than the 10–25 percent estimated public contribution if time costs are ignored.

As was stated previously, time has value. However, when economists measure economic well-being and produce estimates of inequality, typically time is not considered. Cathleen D. Zick and W. Keith Bryant, of the University of Utah and Cornell University, respectively, focus on the value of out of market time devoted to household activities in their chapter titled “Does Housework Continue to Narrow the Income Gap? The Impact of American Housework on Economic Inequality Over Time.” Using the ATUS, they measure unpaid time devoted to household production and compare the current value of this time (relative to total current household income) to previous measures to determine the relative contribution of unpaid time to the total valuation of economic well-being. In order to assess the role that housework has played in economic well-being over time, the authors must explore the changing nature of housework and the role played by the changing sociodemographics over the course of the past 25 years. They describe five inter-related phenomena: 1) the changing nature of women’s connection to the paid workforce and their rising educational levels, 2) the increase in the percentage of households headed by a single mother, 3) the changing racial mix in our population, 4) fertility decline, and 5) the increase in the average age of our population. With this discussion of

the flux in sociodemographics, they explain the changing distribution of measurable household income. Overall, household income has become much more unequal over the course of the past quarter century.

Once they present and explain the changing distribution of household income, they present estimates of the value of unpaid household production time. They use ATUS data from 2003 along with time use data from the year 1975. They include a broad listing of household activities, incorporating all activities that could be outsourced — that is, all activities that could be performed by a third-party provider. Also, like Folbre and Yoon, Zick and Bryant use a replacement cost approach to derive dollar measurements of the value of unpaid household production in 1975 and 2003. They find that the dollar value of unpaid household work rose dramatically over this period, but increased much more for those with higher household incomes relative to those with lower household incomes. As a consequence, they conclude that overall economic inequality rose from 1975 to 2003 because of an increase in income inequality and due to a worsening in the distribution of the value of unpaid housework. The ability of the value of housework to reduce household inequality has fallen over time.

Zick and Bryant go beyond this conclusion of worsening inequality to determine the role played by changing sociodemographics in this changing distribution in the value of unpaid housework. To do this, they contrast the observed change in income and unpaid housework distribution to what might have been observed had there been no change in the underlying sociodemographic construct of the population. They find that these demographic changes have ameliorated the shift in overall economic inequality. But, despite these sociodemographic changes, they find that three factors have contributed to the increase in overall economic inequality: labor market shifts, technological change in household production, and education-related changes in preferences and opportunity costs.

Jennifer Ward-Batts of Wayne State University extends the discussion of the economic value of household production in her study of retirement titled “Household Production, Consumption, and Retirement.” She explains that many studies have documented a decline in consumption among the retired population but that no satisfactory explanation has been offered. She provides one explanation: that the decline in con-

sumption is balanced by a corresponding increase in nonmarket production, thus equalizing the overall value of consumables. Ward-Batts focuses on individuals at pre-retirement age (ages 55–61) and compares their time-use patterns to those who are past retirement age (ages 65–71). She compares time use both descriptively and using regression analyses to control various factors that might affect time choices. Ward-Batts finds some evidence that household production time increases after retirement, more so in total minutes for women than men but more as a percentage of preretirement household production time for men. She concludes that her findings are consistent with the notion that retirees substitute home-produced goods for market-purchased goods.

Moving beyond the issues surrounding the value of out-of-market time, Jay Stewart of the Bureau of Labor Statistics studies the ways that males use their time when they are not employed. As he notes in his chapter, “The Time Use of Nonworking Men,” the labor force participation of prime-age males has declined over the past quarter century, but little is known about how these nonworking males are spending their time and how they are supporting themselves. He notes that nonworking males are very likely to have sources of unearned income, with those reporting nonwork due to sickness or disability most likely to report these sources of unearned income. Overall, he finds little variation in sources of income across different groups of nonworking men, concluding that differences in time use are likely to be driven more by preferences than by a relatively greater need for household-produced goods that might exist were income more variable across individuals. Stewart focuses on five broad categories of time use: work-related activities, unpaid household work, leisure, personal care, and other activities. He compares time use for workers versus nonworkers across these five broad categories. He notes that nonworkers spend about an hour more in household production, 90 minutes more in personal care, and four more hours a day in leisure than full-time workers. Much of this increased out-of-market time is devoted to sleep and watching television. Stewart shows that nonworkers do not seem to be replacing market work with nonmarket work because the majority of the time freed up by not engaging in market work is spent in leisure activities.

Stewart constructs an index to measure how dissimilar the time uses are for different types of individuals. Using this dissimilarity index, he

shows that retired individuals' time use is quite similar to the time use of individuals with disabilities. Additionally, he shows that full- and part-time workers use time very differently, but that when workers' time use on days they do not engage in paid work is examined, their time use is quite similar to that of nonworkers. Finally, he provides a nice presentation of the differences in time use of nonworkers according to the reasons they report for not working. His chapter concludes with an appendix that contains a fully developed theoretical model to explain what labor economic theory has to say about the differences to expect in time use for workers versus nonworkers.

This volume concludes with the chapter by Anne Polivka of the Bureau of Labor Statistics titled "Day, Evening, and Night Workers: A Comparison of What They Do in Their Nonwork Hours and with Whom They Interact." As the title suggests, Polivka examines the very important issue of work timing across the 24-hour day and how the timing of work impacts our ability to interact with family and friends. Polivka explains that workers are categorized as nonday workers if they worked more than half of their paid work hours outside the day time period 8 a.m. to 4 p.m. According to this categorization, approximately 20 percent of workers report a nonday work schedule, with slightly more than half working in the evening and most of the remainder working a night shift. She notes that those working nonday shifts tend on average to come from more economically disadvantaged situations than those workers with a standard day schedule.

The focus of Polivka's chapter is whether the timing of work affects individuals' health and welfare, and therefore whether a particular work schedule imposes a cost on those workers. To do this, she stratifies the ATUS activity lexicon somewhat differently than the other authors in this volume. She focuses on five broad areas, stratifying by activities related to health, care of home or family, shopping, leisure time, or activities related to paid work. One important finding relates to sleep: she notes that nonday workers actually sleep more minutes a day than do their day working counterparts. Additionally, she notes that nonday workers do not exercise less. She finds that nonday workers spend more time, on average, in unpaid household production but less time caring for family members. Nonday workers also engage in more leisure time, but the bulk of this leisure time is devoted to television. Furthermore,

nonday workers spend less time eating and less casual time with family and friends. Polivka concludes her chapter with the finding that evening workers appear to be paying something of a “cost” for that particular nonday schedule, but that the costs associated with a night schedule are not so clear.

Once completing the six chapters of this volume, I hope the reader will agree that the work presented herein succeeds in meeting Hamermesh’s challenge to economists to analyze time use data using the best tools and intuition that economics has to offer. At a minimum, the chapters provide the reader with a better grasp of how we spend our time and how economists can utilize time survey data to glean a better understanding of everyday life.

Notes

1. The outgoing rotation group is that group of sample respondents who have recently completed their eighth and final interview for the CPS.
2. The common alternative to the replacement cost approach is the opportunity cost approach which applies the caregiver’s market wage opportunity to all time she devotes to her children.

References

- Abraham, Katharine G., Sara Helms, and Stanley Presser. 2007. “The Effects of Survey Nonresponse on Inferences about Volunteer Work in the United States.” Unpublished manuscript presented at the IZA Topic Week: Non-market Time in Economics, held in Bonn, Germany, May 30–June 2.
- American Time Use Survey User’s Guide. 2007. “Understanding ATUS 2003 to 2006.” U.S. Bureau of Labor Statistics, Washington, DC. <http://www.bls.gov/tus/atusersguide.pdf> (accessed December 5, 2007).

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