

Accounting for Household Production: Toward an Improved Measure of Macroeconomic Well-Being

Abstract What we measure tells us what we value. GDP is expressed in money, so only things exchanged for a price are counted in this crucial indicator of economic well-being. Housework, raising children, and other unpaid work contribute to the long-term viability of human life. But they have no price. This chapter summarizes the decade-long effort that led to the adoption of the American Time-Use Survey (ATUS) as a step toward correcting this omission in national accounts. The road involved steadfast work by insiders and outsiders: bureaucrats, scholars, governmental organizations, and politicians and activists. Their work enables more comprehensive measures of how people provision, representing a real moment of institutional change that lessens the invidious distinction between paid work in the labor market and unpaid work in the home.

Keywords Time use · Unpaid work or care work · Gross Domestic Product · Well-being · Economic indicators

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Every introductory economics student is quizzed on the definition of gross domestic product (GDP). The pat reply is “GDP is the sum of the monetary value of all goods and services produced within

a nation's borders in a given year." From this definition, we learn that GDP is expressed in money, so only things exchanged for money count. Housework does not count. Neither does volunteer work. Nor work in the underground economy.¹

Hopefully, students are also introduced to critiques about the limits of GDP as a measure of economic well-being. It is crucial to recognize that the US National Income and Product Accounts (NIPA) from which GDP is derived are based on conventions—that is, institutionalized norms about which data are or are not collected and counted. These conventions not only reflect particular social values but also reinforce them in a process of cumulative causation. This causes a rigidity in this institution. Specifically, the way we measure GDP reflects a view that conflates the economy with markets. "The economy" equals the market system. Other institutions involved in social provisioning are rendered secondary or external to what is being measured. NIPA is thus an institutionalized expression of the primacy of markets and the silencing of other forms of social provisioning.

My first short story of institutional change summarizes efforts to change this convention and find a way to count non-market activities that contribute to social provisioning. Time use studies produced by the US Bureau of Labor Statistics (BLS) are slowly being incorporated into non-market satellite accounts at the Bureau of Economic Analysis (BEA) of the US Department of Commerce—the people who bring us GDP. A decade-long effort inside and outside the US government ultimately led to the adoption of the American Time-Use Survey (ATUS). The federal budget for ATUS was first proposed in 2000 in President Bill Clinton's budget request and approved by the US Congress. ATUS is now an ongoing official statistical program of the US government, prominently lessening the invidious distinction between paid work in the labor market and unpaid work in the home (Figart 2003). The road to how we got there involves careful, steadfast work by insiders and outsiders alike: hard-working bureaucrats, scholars, governmental organizations, and politicians and activists.

FEMINISTS ARGUE FOR TIME USE STUDIES

The seeds of the first federally funded and continuous ATUS in 2003 were sown decades earlier, at the same time that Simon Kuznets was doing extensive work on national income and products accounts. In

the 1930s, Margaret Reid wrote the *Economics of Household Production* (1934), based on her dissertation at the University of Chicago under her Ph.D. advisor, Hazel Kyrk. As summarized by Nancy Folbre, “In the first half of the twentieth century, interest in counting non-market work occasionally cropped up only to wilt beneath the disapproving eye of the economic orthodoxy” (2009, 260). In the introduction to a special issue of *Feminist Economics* on the life of work of Margaret Reid, Folbre relates, “Occasional efforts to calculate the contribution of ‘homemakers’ were met with disinterest and derision until women comprised a significant share of the economics profession” (1996, xii).

In empirical research, home economists following Margaret Reid pursued the study of time allocation as a means to computing monetary equivalents for housework, coincident with the second wave of feminism in the USA. For example, *Time Use* was an extensive, detailed major study by Kathryn E. Walker and Margaret E. Woods (1976), published by the American Home Economics Association, in which authors assessed food preparation, care of family members, care of the house, care of clothing, and managing the house. Among other outcomes, Walker and Woods found that women who worked as full-time homemakers averaged 57 h of work per week (8.1 h per day) at home, a full-time job (1976, Table 3.14). Furthermore, men’s hours of work in the home did not increase in concert with women’s increase in hours in the paid labor market, leading to later scholarship on what is termed a “second shift.” About 70% of the work in the home was done by wives, with husbands and children providing about 15% each on average.

Feminist political economists have long argued that the National Income and Product Accounts (NIPA) did not recognize or value work in the home, including child care. Theoretically, in the 1980s, early feminist economists such as Lourdes Benería, Heidi Hartmann, and Susan Himmelweit borrowed the term “social reproduction” from Marxism and used it as an analytical category. Hartmann (1981, 373) argues that “[t]he system of production in which we live cannot be understood without reference to the production and re-production both of commodities—whether in factories, service centers, or offices—and of people, in households.” Some feminists in Britain fashioned a “wages for housework” campaign to value the work of home production.

In the US, a number of time-use studies followed (for a summary, see Hartmann 1981, 377–386; for earlier studies, see Walker and Woods 1976, 4–5), further substantiating Walker and Woods’s *Time Use*. Much

of the evidence was gathered through 24-h time diaries, considered a highly reliable method. The Universities of Michigan and Maryland, for example, have conducted such time-use surveys periodically since 1965. A few studies were supplemented by extensive interviews/field visits with a subset of the sample (see Power 1977), with the latter approach proving to be too expensive for widespread adoption by ATUS. Collection and analysis of time use data were done in other countries as well, but not yet as part of a national statistical, consistent, and reliable longitudinal survey.

In the late 1980s, a feminist politician in New Zealand took up the mantle, devoting much of her career to ensuring that national income accounting would be rid of gender discrimination. She is Marilyn Waring, a sociologist by training and a former member of the New Zealand parliament. As head of the Public Expenditure Committee, Waring became familiar with the intricate details of the United Nations (UN) system of national accounts. Her (1988) book, *If Women Counted*, became an important manifesto in feminist economics and was made into a 1995 documentary film titled *Who's Counting? Marilyn Waring on Sex, Lies and Global Economics*. In the book, Waring penned a sophisticated critique of the omission of unpaid work in the household, though she also discussed that no value was given for volunteer services, either. In fact, she went as far as describing the UN system of national accounts as “applied patriarchy” (Saunders and Dalziel 2017, 201). (Today, the imputed value of volunteer labor is often reported by organizations in their annual accounting statements and summaries of such value nationally.) Waring’s research sparked discussion and political organizing throughout the globe around the work of counting household labor.²

This included the United Nations World Conference to Review and Appraise the Achievements of the United Nations Decade for Women conference in Nairobi, Kenya, in 1985. The recommendations arising from this key conference of politicians, scholars, non-governmental organizations (NGOs) and activists include a commitment to measuring and valuing unpaid work with timely and reliable statistics, albeit a limited one: “Governments should compile gender-specific statistics and information and should develop or reorganize an information system to take decisions and action on the advancement of women” (paragraph 130), e.g., statistics that “reflect accurately women’s contribution to food staples” (paragraph 179) and caregiving (United Nations 1986).

The governments of Australia, Finland, Denmark, Germany, Sweden, Norway, and Canada were among the first industrialized countries to employ time-use surveys. In 1981, Statistics Canada piloted a national time-use study to help value non-market activities, with the time-use survey becoming fully implemented in 1986, 2 years before Marilyn Waring's influential book. Australian economist Duncan Ironmonger played a central role in development and promoting time use in that country.³ A pilot time use survey under the Australian Bureau of Statistics (ABS) was conducted as early as 1987. The 1990s saw sweeping advancements in the global effort to measure and value unpaid work. Statistics Canada sponsored an international conference on the topic of unpaid work in 1993. The US BLS sent representatives. After a multi-year process, that same year, the United Nations international standard system of national accounts (SNA)—first employed in 1953—published a second revision that names household activities as “productive in an economic sense” (SNA 1993, 5). In effect, this meant valuing household goods production for their own consumption in the measurement, but excluding cooking, cleaning, child care, and elder care. This was the first step, as the SNA cannot be enforced in national governments.

Globally, with a dozen countries as models completing one or more time-use surveys, delegates to the 1995 United Nations Fourth Conference on Women in Beijing, China, were teeming with renewed interest in national action to measure and consider household production in making public policy. The resultant Platform for Action included a number of endorsements for gender-sensitive policies and programs. Paragraph 206 is perhaps the most significant in a call for a strategic objective to generate and disseminate gender-disaggregated data for planning and evaluation, for instance:

Developing methods, in the appropriate forums, for assessing the value, in quantitative terms, of unremunerated work that is outside national accounts, such as caring for dependents and preparing food, for possible reflection in satellite or other official accounts that may be produced separately from but are consistent with core national accounts, with a view to recognizing the economic contribution of women and making visible the unequal distribution of remunerated and unremunerated work between women and men. (United Nations 1996, Paragraph 206(f)(iii))

In 1996, the Canadian census queried citizens for the first time about time spent on unpaid housework. The USA still lagged behind at that point.

THE ROAD TO THE AMERICAN TIME USE SURVEY⁴

Between 1995 and 1997, a BLS working group contracted with a survey firm to pilot test two alternative time-use questionnaires using telephone interviews, the method ultimately chosen for data collection to substantiate information in time diaries. A study based on the data was conducted in 1997. Getting respected economists and specialists in the USA to embrace the idea, moving it from the margin to the center, was vital to the success of ATUS. (Thorstein Veblen would likely have embraced this role for technical expertise.)

The BLS reached out to the MacArthur Foundation's Research Network on Family and the Economy (1997–2003) to cosponsor a two-day conference on "Time Use, Non-market Work, and Family Well-Being". Nancy Folbre, an expert on social reproduction and caring labor and a member of the network, presented a paper (Folbre 1997). So did economist Duncan Ironmonger from Australia, but who presented on the European Union's (EU) plans for a harmonized method for cross-country time-use surveys. In a sense, the conference experts served as cheerleaders for the BLS time-use pilot. Attendees wanted the work to continue in a significant way. Although not unanimous, two crucial endorsements emerged: (1) Individual paper time diaries are the best method of data collection, as used in Australia, as long as respondents were able to record primary and secondary activities (what else were you doing while minding a child or doing the dishes?) and (2) Computer-Aided Telephone Interviews (CATI) would corroborate diary findings and probe about secondary activities.

Members of the National Academy of Sciences (NAS/NRC) who attended the conference wanted to hold a similar workshop in 1998. This time, in addition to inviting academics and representatives of the BLS and other federal agencies, the NAS sought to involve the Committee on National Statistics (CNSTAT), another group of top experts. Important here is that the inclusion of CNSTAT brought notable economists and statisticians like William Nordhaus from Yale

and Joseph G. Altonji and Charles F. Manski from Northwestern to the table with longtime time-use researchers and advocates like Nancy Folbre (University of Massachusetts-Amherst), Michael Bittman (University of New South Wales, Australia), John P. Robinson and Suzanne Bianchi (University of Maryland), F. Thomas Juster (University of Michigan), and Daniel Hamermesh (University of Texas-Austin). To say the least, a significant achievement was marked by CNSTAT's validation of the BLS's work and approach to data collection. A report of the workshop, published in 2000 claims that "[d]ata on time use are important sources of information, and the lack of national time-use data is a critical gap in the federal statistical system" (NRC 2000, 58).

In my view, the imprimatur of the 15-member 1999–2000 Committee on National Statistics, only one of whom was gendered female (demographer Julie DaVanzo from RAND who served as Workshop Chair), meant that the US government could not turn away from instituting a time-use survey. The subsequent funding of ATUS in the federal budget in 2000 led to field testing, hiring of interviewers, staff training, and publication, as well as data dissemination planning. The full launch in January of 2003 was—and remains—a collaboration between the BLS and the US Census Bureau, as the representative sample of households is drawn from the Bureau's monthly Current Population Survey.

To take the next step in discussing how to employ time-use data to design non-market accounts for the NIPA, the National Academy of Sciences assembled the eleven-person expert "Panel to Study the Design of Nonmarket Accounts." Nancy Folbre was a member of this panel, and so were Katharine Abraham—former BLS Commissioner under whom ATUS was piloted—and Barbara Fraumeni of the US Department of Commerce (later taking a position at the University of Southern Maine). Among the recommendations of the Panel were:

Recommendation 2.1: The American Time Use Survey, which can be used to quantify time inputs into productive nonmarket activity, should underpin the construction of supplemental national accounts for the United States. To serve effectively in this role, the survey should be ongoing and conducted in a methodologically consistent manner over time. (Abraham and Mackie 2005, 7)

EARLY EVIDENCE OF THE SIGNIFICANCE OF TIME USE RESEARCH

Although ATUS is a young statistical survey, its value has been proven through the rich scholarship that has been forthcoming from data analysis. We have a better understanding of how people allocate their time (see, e.g., Kimmel 2008). These time allocation data are critical to gauging the value of the home production sector and measuring its productivity. We have not changed the definition of GDP yet and it still remains the dominant measure of macroeconomic performance. Nevertheless, we now have estimates that would adjust GDP for household production. For example, the level of GDP would have risen by 39% in 1965, 27% in 2004, and 26% in 2010. The adjusted percent increase is higher in 1965 because of the relatively greater hours that women spent in home production in 1965 as compared to 2010 (Landefeld et al. 2009; Bridgman et al. 2012). Another estimate of the value of child care alone exceeds these previous estimates for 2004 and 2010, for an upward adjustment to GDP of 43% (Suh and Folbre 2016). The development of satellite accounts within the BEA thus represents a real moment of institutional change.

Compared to other developed countries, the USA has been relatively “late to the party” in employing time use research to development household satellite accounts. Norway, though, was an early pioneer. During the 1970s, the valued added in household production in Norwegian GDP was roughly 40% of GDP. As women increased their hours in the paid labor market, the value added has declined and measured 24% of GDP in 2000 (Aslaksen and Koren 2014). Household production in Finland added 39% to GDP in 2006 (Varjonen and Kirjavainen 2014). The imputed value of unpaid household work, and volunteer and community work in Australia, was estimated at 43.5% in 2006, placing it near the highest among international comparisons along with New Zealand, Japan, and Portugal. Among the lowest estimates are the countries of Canada, Korea, China, and the USA (ABS 2014, Graph 1). It important to note that country rankings can shift based on which valuation method is used for household production.

Women across the world, it is said, experience time poverty. While technology may be able to help complete domestic tasks easier and more quickly, there are only a fixed number of hours in a day. It is well documented that women perform more housework and caregiving than men.

This leaves women relatively less time for sleep, leisure, and exercise, to name a few. In terms of public policy, we first need to measure time use. Work conducted within households is an important economic activity. We need a harmonized method of time use as well as valuation in GDP for better cross-country comparisons. This chapter profiled the development of the American Time Use Survey as a great leap forward. Last, but certainly not least, we need improvements in public policy to help better balance paid work and family time. It is not just paid family leave. Or the availability of affordable and high-quality child and elder care. Instead, accounting for housework, the title of this chapter, also means questioning the traditional hegemonic model of long paid working hours that assume that there is someone at home full time or part time taking care of the necessary and undervalued activities to sustain well-being. Current policy discussions in the USA include proposals to expand and modernize Social Security benefits, recognizing the lifetime benefit loss for caregivers and widows and widowers. If adopted, such an expansion would provide another tangible recognition of household production.

NOTES

1. A history of the GDP measure, the roles it plays in policymaking, and its importance is found in Diane Coyle's book, *GDP: A Brief but Affectionate History* (2014). Coyle is less critical than feminists, though, about GDP as a measure of economic welfare (Coyle 2014).
2. *Counting on Marilyn Waring* is an excellent volume devoted to the influence of Waring's work (Bjørnholt and McKay 2014).
3. Among Ironmonger's prolific work, I would recommend his article in *Feminist Economics* (1996).
4. My summary of the development of ATUS inside the US government draws extensively upon an article that was coauthored by Michael Horrigan of the US Bureau of Labor Statistics (BLS), who served as the survey's director (Horrigan and Herz 2004).

SUPPLEMENTARY APPLICATIONS

1. Write down three unpaid tasks that you spent time on in the last week. Calculate how many hours you spent on the task. Compare the amount of time you spent with the latest averages from the American Time Use Survey (ATUS).

2. Many countries of the world now utilize time use surveys. Multi-country statistical agencies also conduct time use research, such as Eurostat, the statistical agency of the European Union, and the Organisation for Economic Co-operation and Development (family data and the OECD Better Life Index). Explore official government websites for time use surveys. Look at differences in household tasks, child care, leisure, and paid labor by gender in two different countries and summarize your findings. See, for example, that Norwegian men are most helpful with housework while Japanese men do the least.
3. Find countries that have used time use surveys to impute a value for the contribution of unpaid productive labor in satellite accounts (for estimates of additions to GDP). For one of these countries, discuss the impact of household labor on the country's GDP. The United Nations Statistics Division provides an introductory overview of time-use research across the globe, with some links to time use investigations in over 70 countries.
4. Investigate other measures of economic well-being besides GDP. How, for example, is the Genuine Progress Indicator (GPI) different than GDP?
5. Melinda Gates (of the Bill and Melinda Gates Foundation) gave an interview on women's time poverty with "Marketplace," the National Public Radio show, on March 21, 2016. In the exchange with host David Brancaccio, Gates intermixes data (from the USA, Europe, and Africa) with personal reflections based on time spent living in Tanzania. Gates also discusses policy needs, especially for working adults in the US. Write a reaction to what she argues and suggest other policy remedies that may help households reduce their so-called time poverty.

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