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Cruising Through the Millennium?
2003-13 Changes in American Daily Life

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# CRUISING THROUGH THE MILLENNIUM? 2003-2013 CHANGES IN AMERICAN DAILY LIFE 

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#### Abstract

Much has been debated about the accelerating pace of life in society, but with little systematic empirical evidence. One possible source is national time-diary data, documenting how Americans spend their time, conducted every decade since 1965, using standardized diary procedures across the previous day. Earlier diary studies documented declines in women's housework, increases in parental child care and overall gains in free time. This stands in contrast to the increased time pressure cited by societal critics of the US style of life.

Since 2003, the US government's American Time-Use Survey (ATUS), now conducted continuously by the US Bureau of the Census, has asked more than 145,000 Americans how they spent their time. Analysis of these 2003-2013 ATUS diaries reveals rather minimal change over this first millennial decade, with about an hour's decline in both paid work and domestic work/shopping, as in previous decades mainly among women. Unlike previous studies, that decline included about a $30 \%$ decline in help to neighbors and members of other households, a key indicator of the country's social safety net.

These declines in productive and other pressured activity were offset by small gains in less pressured activities, like sleep and TV viewing. There was also a notable decline in reported travel activities, particularly by automobile. The 2010 ATUS also began asking how these respondents felt during their diary activities, with results generally consistent with less-pressured life-styles and earlier measures.


## INTRODUCTION

There has been considerable debate about the increased pace of daily life, not just in America (e.g., Schor 1991; Burns 1993; Darrah et al. 2005; Wajcman 2015), but in societal life generally (Rosa 2005). At the same time, there is harder empirical evidence that little such social change has occurred: trends from time-diary studies indicate that Americans now enjoy more free time than in 1965 (e.g., Aguiar and Hurst 2006, 2009; Robinson and Godbey 1999). Trend data on personal stress from the American Psychological Association (2012) actually report declines in these stress levels since 2007. Robinson (2013) found General Social Survey (GSS) and other national samples reporting lower levels of "feeling rushed" in 2010 than earlier. More recently in that GSS, 29\% of its 2014 national sample of workers reported being "always" or "often" stressed at work, compared to $40 \%$ in 1989. Yoon et al. (2010) report no change in US blood pressure readings among adults in National Institutes of Health surveys between 1998 and 2007.

National US time-diary studies have been conducted in roughly every decade since 1965 to document changes in the structure and quality of American daily life, using standardized time-diary procedures. This national time series began with diary collections by academic survey firms, first at the University of Michigan in 1965-75 (Szalai 1972; Juster and Stafford 1985) and then at the University of Maryland in the 1980s and 1990s (Robinson and Godbey 1999), again using national probability sampling methods to ensure comparability with US Census population demographic figures.

Since 2003, this time series has been expanded and replicated by the American Time-Use Survey (ATUS), now conducted annually by the US Bureau of the Census for the Bureau of Labor Statistics (BLS). As in the earlier university time-use surveys, the ATUS also conducts random telephone diary interviews to collect retrospective data on how Americans spend their time across the previous 24 hours. A great advantage of the ATUS survey, unlike other diary surveys and elsewhere, is its continuous sampling, allowing one to identify the periods when social change takes place. A disadvantage is that it was developed independently with little intent of linking with earlier US studies. However, several authors have treated the ATUS as a part of a time-series with earlier US diary surveys, with no obvious serious problems (e.g., Fisher et al. 2006; Aguiar and Hurst 2006).

As in the diary surveys conducted 40-50 years previously, Table 1 shows that national 2013 ATUS respondents reported lower amounts of both paid work and unpaid (domestic) work than in 2003, with women reporting about a third of their work as paid work and two-thirds as domestic work, the reverse of the roughly 3:2 ratio of paid work to unpaid work for men. Although their personal care and educational activities generally remained about the same, women in the new millennium reported almost 4 less hours of weekly free time than men. Like men, women's dominant free-time was also watching television. Indeed, TV viewing now represented virtually half of all the US public's free time.

## METHODOLOGY

Time-diary Studies: Unlike previous measures of work, family and free time figures based on single estimate questions on their work hours ( e.g., "How many hours did you work last week?"), or their estimates of the hours spend watching TV or doing housework, more detailed and precise figures can be derived from their time diaries. The important value of these diary accounts is that respondents report on all their daily activities, not just their work or TV time, and these diary accounts must add up to exactly 24 hours. Using sequential diaries of all their daily activities, respondents are thus less prone to encounter problems of memory loss, self- projection or double counting of time than when they make time estimates. This is especially the case when the diary period only refers to a single day, and one that should be most vivid in their memory (Szalai 1972).

Time-Diary Methodology: The time diary is a micro-behavioral technique for collecting self-reports of an individual's daily behavior in an open-ended fashion on an activity-by-activity basis. Individual respondents keep or report these activity accounts (in their own words) for a short, manageable period, such as a day - usually across the full 24 hours of a single day (Michelson 2005). In that way, the technique capitalizes on the most attractive measurement properties of the time variable, namely:

* All 24 hours of daily activity is potentially recorded, including activities in the early morning hours, when few respondents may be awake.
* The 1,440 minutes of the day are equally distributed across respondents, thereby preserving the "zero sum" property of time that allows various trade-offs between activities to be examined; that is, if time on one activity increases, it must be zeroed out by decreases in some other activity.
* $\quad$ Respondents are allowed to use a time frame and an accounting variable that is highly familiar and understandable to them and accessible to the way they probably store their daily events in memory.

The open-ended nature of diary reporting means that these activity reports are automatically geared to detecting new and unanticipated activities (for example, in past decades, new activity codes had to be developed to accommodate aerobic exercise, and use of e-mail, iPods and other new communications technologies).

Earlier Diary Surveys in the United States: As noted above, there have been roughly decade-interval (1965, 1975, 1985, 1992-1995, 1998-2001) national time-diary surveys by academic survey firms from which to make trend comparisons with the current American Time-Use Survey (ATUS). These have been archived with explanations and examples of their use to draw time-trend conclusions at the American Heritage Time-Use Surveys (AHTUS) at the University of Oxford (www.timeuse.org). Each diary survey employed strict national probability methods, in which all residents (of the 90+ \% of US residents with telephones) in the country had an equal chance of selection. Interviews are now completed with at least half of selected individuals to ensure their representativeness of the general US population. Data were weighted by post-stratification to be further representative of the gender, age, marital status, employment status, parental status and income composition of the country. These trend data and conclusions have been reported in

Fisher et al. (2006).
Since 2003, this time-diary series has been replicated and expanded with the arrival of the American Time-Use Survey (ATUS), now conducted annually by the US Bureau of the Census for the Bureau of Labor Statistics (BLS). Like earlier national diary studies, the ATUS also collects retrospective data on how Americans spent their time across the previous 24 hours, but now with much larger samples and a more elaborate coding scheme. Another unique feature of the ATUS is its continuous monitoring of daily activity, allowing the opportunity to identify exact periods when national changes occur (such as the great recession of 2008 and its gradual recovery), unlike diary studies in other countries conducted only every decade or less often.

The 2003-2013 ATUS employed telephone interviews, using these "yesterday" diaries based on the recall of what respondents did on the previous day. Different methods of diary interviewing have been shown to produce equivalent results to those done earlier (e.g., Robinson and Godbey 1999), and especially great BLS care was expended to ensure the representativeness of the latest ATUS sample (as documented in Abraham, Maitland and Bianchi 2006).

This 2003-2013 Bureau of Labor Statistics ATUS study has now collected more than 140,000 daily diaries continuously across each year since 2003, using the telephone yesterday method with a Census Bureau sample and a very detailed set of more than 400 activity categories, as described at http://www.bls.gov/tus/and as archived at https://www.atusdata.org/atus/. Parallel data from more than 30 other countries can be found there as well, which employ similar activity reporting methods.

## RESULTS

## DECADE DIFFERENCES IN TIME USE

Table 1 outlines a broad year-by-year account of Americans’ overall time expenditures in 32 activities between 2003 and 2013 for the entire ATUS sample aged 15 and older. These were derived from the official accounts in Table 1 of BLS press releases for each year of that report (www.b/s.gov/tus//). These hour-per-day figures there were translated into weekly terms by multiplying each entry by the 7 days of the week. To ease interpretation, these BLS activities were also been rearranged by activity category, from paid work and education hours at the top through the various domestic productive activities and personal care in the middle, and with mainly free-time figures at the bottom (and separately showing the roughly hour per week of unreported or missing activity time).

## TABLE 1 HERE.

Table 1 first shows that these overall time differences in ATUS across the 2003-13 decade tend to be rather modest, with some 1-2 hour per week ATUS declines in both paid work and in domestic work. These declines in domestic work included time for core housework and for shopping for various goods and services-but also declines for help and
care to neighbors and other non-household adults and children. At the same time, there was no such decline in time for formal volunteering through organizations, shown in the bottom half of Table 1.

Offsetting these paid and domestic work declines of roughly an hour or two per week were increases in sleep (but not other personal care) and in watching TV, as well as in IT use and various other free-time and non-free activities. There is also the roughly one hour increase in unreported diary activity in the bottom half of Table 1. These overall results shown in Table 1 thus outline more than 25 diary activities according to type of activity. Examining each of these general types of activities in turn:

Paid Work: As noted above, time spent working at one’s main job showed a decrease of one-two hours per week, plus another half hour on the commute and other related activity.

Education: Attending classes and related travel remained almost constant across the decade.

Housework: Perhaps not surprisingly, and consistent with earlier diary studies, most routine housework activities declined across the decade, mainly for women. Most other household production activities remained the same, with a small decline in shopping.

Child care: As in previous studies, activities involving child and adult care within the household remained about the same.

Care and helping: Perhaps most notable change was the slow but steady decline in helping neighbors and others living outside the household. For both men and women, this amounted to declines of about 40 minutes a week - but across the decade that was a decline of more than a third of the overall decline spent in such time helping others.

Personal Care: Sleep time increased about an hour for both men and women, although activities involving other personal care (like eating, drinking or grooming) stayed rather steady.

## FREE TIME

Religion and Other Organizations: As in previous studies, religious and volunteer activities stayed about the same.

Social Life: Socializing and visiting activities in general dropped about half an hour a week, with some decline in telephone conversations as well.

Recreation: Fitness activities, like swimming, basketball and golf, along with hobbies and playing games stayed about the same.

Media and communication: By far the most common free-time and leisure activity of TV viewing increased another hour per week, now representing almost half of all free
time.
Travel: The travel associated with each of the activities in Table 1 has been incorporated into each activity. As shown in Table 5 below, differences by travel itself shows about a decline of about $2 / 3$ hour per week across the decade, almost all by the means of automobile (primarily as driving, rather than riding as a passenger).

Gender Differences: Table 2 then shows that these overall activity differences sometimes broke out differently for men and for women across selected years. In terms of these gender differences, men showed the biggest difference across the decade in work time, with a decrease of about 2 hours a week. That was mainly concentrated in time at work itself, but also with about half an hour decrease in commuting and other work- related activity (like work breaks). Women also showed a decrease in work hours, but closer to a half hour decrease, and little decline in commuting and work-related time. Neither men nor women showed any consistent difference in the hours spent in education-related activity.

## TABLE 2 HERE.

Likewise, the overall decrease in domestic labor time in Table 1 was found mainly among women, and mainly in their decreased time on basic housework (like cleaning and laundry). As in Table 1, the most prominent differences were in the declines in care given to non-household children and adults. Men also shared in this decline in outside help to non-household members.

Offsetting these declines in paid and domestic work, then, were the hour gains in sleep (but not other personal care) and in free time. Both men and women reported an hour's more sleep time, and women gained another hour's more time in some personal care activities.

As in Table 1, then, the 1-2 hour gains in free time were mainly found for increased TV time for both men and women. Men also continued to spend more of their 40+ hours of weekly free time on TV and on fitness activity than did women, while women spent more of their increased 36 hours of free time socializing, attending religious services, club meetings and in telephone conversations. An increase in unreported activity time of more than an hour a week was also found for both man and women at the bottom of Table 2.

Differences in the 18-64 Age Active Population: Tables 1 and 2 focus on the total US population aged 15 and older, and they thus include two older and younger age groups that could skew these overall figures for the more normal working population, namely: 1) those age 15-17 still mainly in high school and 2) those in the usually retired population aged 65 and older. Table 3 therefore focuses on the more active labor-force population aged 18-64, and it also includes detailed times for six free-time activities of IT use, audio listening, reading, hobbies, games and relaxing not detailed in the BLS official press reports. Of these six, only IT showed an increase across the decade, offset by a decrease in reading for both men and women. That reading decrease was probably concentrated in reading of newspapers, although that print medium distinction is not covered in the ATUS
coding scheme in Table 3).

## TABLE 3 HERE.

In general, Table 3 does continue to show much the same pattern of changes as in Tables 1 and 2, with (smaller) declines in paid and domestic work, along with decreased sleep and free time (especially watching television). It also continues to include the overall two-thirds of a weekly hour declines in care to non-family members noted for the overall samples in Tables 1 and 2. Despite their increased free time, men and women both spent 0.3-0.4 hours less hours socializing and visiting.

Regression-Adjusted Differences: There are many changes in the demographic composition (age, family structure, employment, etc.) of the population since 2003, and it is possible that many of the differences in Tables 1-3 could be due to these demographic factors and not to differences in activity per se. For that reason, the ATUS data were subjected to a multiple regression program to control for these demographic factors. The regression program Multiple Classification Analysis (MCA) was developed for survey data like the ATUS by survey methodologists Andrews et al. (1972), and it has the advantage of showing the differences in time use before and after adjustment for each of these predictors of time use for individual groupings (like those age 25-34, college graduates, etc.) of each ATUS demographic predictor. To increase the sample sizes involved, the time- diary numbers in Table 4 then are for the four combined year periods of 2003 and 2004, 2005-07, 2008-10 and 2011-2013. Again, only those working-aged years of 18-64 are included in these Table 4 adjustments.

## TABLE 4 HERE.

The demographic predictors included in the MCA adjustment include each respondent's age, race, education level, family income, employment status, marital status, and age of children. In order to highlight the most significant changes after regression adjustment, only the significant and consistent activity changes from 2003 are shown.

The biggest change difference that is noted after MCA adjustment in Table 4 is for the removal of the declines in paid work time and doing classwork as significant. That indicates that the differences in paid work hours in Tables 1-3 are simply due to different numbers of employed workers in each year.

In general, however, most of the MCA-unadjusted differences in Tables 1-3 are confirmed after the MCA adjustment in Table 4. That means they are not simply a result of the population getting older, better educated, less employed and the like. Thus, the main other 2003-13 declining trends for care to others outside the household, socializing, and reading remain and are not affected by other predictors, as are the increases for sleep, TV viewing and IT use. That suggests the US public is simply doing less helping of neighbors and others outside the household, reading and socializing, which has been offset by their longer sleep, TV and IT hours.

Differences in Location and Social Company: Table 5 shows differences in two other aspects of time use collected via the ATUS - where the activity was performed and with whom. These small differences again largely reflect the lack of change in activities between 2003 and 2013. One important exception is the significant decline in overall travel, which in Tables 1-4 is subsumed with its related travel.

## TABLE 5 HERE.

In terms of times spent with others, there was an unfortunate change in coding of time alone and with co-workers starting in 2010, making it unclear whether the small increase in time spent alone from 2003 to 2009 continued after that - and whether time with co-workers was part of a trend - although that is unlikely given the lack of any consistent trend in work hours shown in Table 4. Time spent with one's family (spouse, children and relatives) and friends otherwise remain largely unchanged. There seems a small (less than a half hour) increase in time spent with neighbors, but otherwise little change.

In terms of where time was spent, the bottom half of Table 5 similarly shows remarkable consistency. There was a small uptick of almost two hours in time spent at home in 2008 to offset the decline in time at work during that recession year, but hours spent visiting others' homes, at restaurants, at places of worship, at schools, at businesses or just being outside remained rather steady. There was a half hour decline in time at businesses and stores to mirror the Table 1-3 declines in shopping time.

Perhaps reflecting that decline was almost an hour decline in travel time, particularly in driving by automobile. Most of that travel time in Tables 1-4 is hidden by being attached to its related activity. It is of course an important activity in its own right.

## SUMMARY AND CONCLUSIONS

Since 2003, the availability of the US government's American Time-Use Survey (ATUS), now conducted annually and continuously by the US Bureau of the Census for the Bureau of Labor Statistics (BLS), has provided an important advance in the ability to identify trends in US time use - with its larger sample sizes, standardized procedures and general activity coverage than in previous diary surveys.

Largely consistent with these earlier time-diary data that documented long-run slowdowns and possible improvements in the pace of US daily life in the $20^{\text {th }}$ century, 2003-13 ATUS diaries continue to show declines in women's housework, little or no turning back from earlier gains in parental time with children, as well as overall gains in the US public's free time. Indeed, the main gains in this new millennium appear for the less active or time-pressured activities of sleep and TV viewing, with a further boost from less time in travel and more time at home. Thus, these patterns of change seem to reflect little long-term effort or scrambling to make up for any fallout from the economic recession of 2007.

Perhaps, the most troubling development during this decade has been the significant
decline in help given to neighbors and other non-household members, which although taking up a little over an hour a week, still represents a $30+\%$ decline in such activity in a period of economic crisis. That slowdown was found across all ages and after regression adjustment for other predictors, and was not simply a response to the recession. (Personal discussions with ATUS staff responsible for activity reporting or coding has not revealed any procedural changes that may have accounted for these changes.)

Another surprise in these recent ATUS data was the gain in TV viewing in an era marked by the dramatic diffusion of new IT devices. IT use did increase significantly in Table 4, but not as much as the increase in TV use, bringing it to the point of consuming more than half of Americans' free time. If respondents were using an IT device to watch TV, that was still coded as "watching TV" in Tables 1-4. (New diary procedures may be needed to better capture the often rapid usage of these IT devices).

Consistent with the less hectic scenario is also the notable decline in reported travel activities, particularly by automobile. The overall constancy of activity patterns was also reflected in diary data on where and with whom these activities took place. Thus, analysis of these 2003-2013 ATUS activities reveals rather consistent evidence of minimal change over this first millennial decade or movement toward a more hectic style of living. This consistent set of trends also seems in line with conclusions from analysis of ATUS and other subjective measures of the quality of US daily life (Gershuny 2012; Robinson 2013). At the same time, it is important to recognize that these diary results may not challenge the stereotype of Americans being a hard-working and industrious people. Rather, it indicates that those who are putting in long hours of work are being outnumbered or replaced by those finding more time to "smell the roses".

Table 1. 2003-2013 ATUS Activity Differences by Year (In Hours per Week, Ages 15+)

| YEAR | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | Change |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\mathrm{n}=$ | 20,720 | 13,973 | 13,038 | 12,943 | 12,248 | 12,723 | 13,133 | 13,260 | 12,479 | 12,443 | 11,385 |  |
| PAID WORK | 25.9 | 25.6 | 25.9 | 26.2 | 26.7 | 26.1 | 24.7 | 24.5 | 25.0 | 24.7 | 24.2 | -1.6 |
| WORK | 23.3 | 23.3 | 23.5 | 23.8 | 24.3 | 23.6 | 22.2 | 22.0 | 22.4 | 22.3 | 22.0 | -1.3 |
| COMMUTE | 2.5 | 2.3 | 2.4 | 2.4 | 2.4 | 2.5 | 2.5 | 2.5 | 2.6 | 2.4 | 2.3 | -0.3 |
| EDUCATION | 3.3 | 3.4 | 3.0 | 3.4 | 3.0 | 3.3 | 3.3 | 3.3 | 3.3 | 3.5 | 3.3 | +0.0 |
| CLASSES | 2.0 | 2.1 | 1.8 | 2.1 | 1.8 | 1.9 | 1.8 | 1.9 | 1.9 | 2.0 | 1.8 | -0.2 |
| HOMEWORK | 0.9 | 1.0 | 1.0 | 1.0 | 0.9 | 1.1 | 1.1 | 1.1 | 1.1 | 1.2 | 1.3 | +0.3 |
| OTHER | 0.3 | 0.3 | 0.3 | 0.3 | 0.2 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | -0.1 |
| FAMILY | 24.4 | 24.3 | 23.8 | 23.4 | 23.5 | 22.8 | 23.1 | 22.8 | 22.5 | 22.1 | 22.7 | -1.6 |
| HOUSEWORK | 4.3 | 4.1 | 4.3 | 4.3 | 4.5 | 4.1 | 4.2 | 4.0 | 4.1 | 4.2 | 4.0 | -0.3 |
| COOK | 3.7 | 3.6 | 3.6 | 3.7 | 3.6 | 3.7 | 3.8 | 3.9 | 3.9 | 3.7 | 4.0 | +0.3 |
| LAWN, ETC. | 1.4 | 1.4 | 1.4 | 1.4 | 1.4 | 1.3 | 1.4 | 1.5 | 1.3 | 1.3 | 1.3 | -0.1 |
| MANAGE | 0.9 | 1.0 | 1.0 | 0.9 | 1.0 | 0.9 | 0.9 | 0.9 | 0.9 | 0.9 | 0.9 | -0.0 |
| OTHER HW | 2.2 | 2.2 | 2.2 | 2.2 | 2.1 | 2.1 | 2.1 | 2.0 | 2.0 | 2.0 | 2.1 | -0.2 |
| SHOPPING | 2.8 | 2.8 | 2.9 | 2.8 | 2.8 | 2.7 | 2.6 | 2.6 | 2.6 | 2.5 | 2.6 | -0.2 |
| SERVICES | 2.9 | 2.9 | 2.7 | 2.8 | 2.7 | 2.7 | 2.7 | 2.6 | 2.5 | 2.6 | 2.6 | -0.2 |
| HH CHILD CARE | 3.0 | 3.0 | 3.0 | 2.9 | 2.9 | 2.9 | 3.0 | 2.8 | 2.8 | 2.8 | 2.9 | -0.1 |
| HH ADULT CARE | 0.9 | 0.9 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 0.7 | 0.8 | 0.8 | 0.8 | -0.1 |
| NON-HH CARE | 2.0 | 1.9 | 1.6 | 1.5 | 1.4 | 1.6 | 1.5 | 1.5 | 1.5 | 1.3 | 1.4 | -0.6 |
| OTHER | 0.3 | 0.3 | 0.3 | 0.1 | 0.3 | 0.0 | 0.2 | 0.2 | 0.3 | 0.1 | 0.2 | -0.1 |
| PERSONAL CARE | 73.8 | 74.0 | 74.7 | 74.5 | 74.0 | 74.3 | 74.7 | 75.0 | 75.1 | 75.1 | 75.4 | +1.6 |
| SLEEP | 60.0 | 59.8 | 60.4 | 60.4 | 60.0 | 60.2 | 60.7 | 60.7 | 61.0 | 61.1 | 61.2 | +1.2 |
| EAT | 8.4 | 8.7 | 8.7 | 8.6 | 8.6 | 8.6 | 8.6 | 8.7 | 8.7 | 8.7 | 8.6 | +0.2 |
| GROOM | 5.4 | 5.5 | 5.6 | 5.5 | 5.3 | 5.5 | 5.4 | 5.6 | 5.4 | 5.3 | 5.6 | +0.2 |
| FREE TIME | 39.3 | 39.7 | 39.3 | 39.0 | 39.5 | 40.1 | 40.4 | 39.9 | 40.0 | 40.9 | 40.1 | +0.8 |
| RELIGION | 1.0 | 0.8 | 0.9 | 0.8 | 1.0 | 1.0 | 1.0 | 1.1 | 1.1 | 1.0 | 1.0 | +0.0 |
| CLUB,ORG | 1.0 | 1.0 | 1.0 | 0.9 | 1.1 | 1.1 | 1.1 | 1.1 | 1.1 | 0.9 | 1.0 | +0.0 |
| SOCIALIZE | 5.5 | 5.3 | 5.2 | 5.3 | 5.1 | 5.0 | 4.9 | 4.9 | 4.9 | 5.2 | 5.0 | -0.4 |
| TELEPHONE | 1.3 | 1.3 | 1.2 | 1.3 | 1.3 | 1.5 | 1.4 | 1.2 | 1.1 | 1.1 | 1.0 | -0.3 |
| FITNESS | 2.0 | 2.0 | 2.0 | 2.0 | 2.2 | 2.1 | 2.2 | 2.1 | 2.1 | 2.2 | 2.1 | +0.1 |
| TV | 18.1 | 18.5 | 18.0 | 18.0 | 18.4 | 19.4 | 19.8 | 19.1 | 19.3 | 19.8 | 19.4 | +1.3 |
| OTHER FREE | 10.5 | 10.7 | 10.9 | 10.7 | 10.4 | 10.1 | 10.2 | 10.4 | 10.5 | 10.6 | 10.6 | +0.1 |
| OTHER | 1.3 | 1.0 | 1.2 | 1.5 | 1.4 | 1.4 | 1.7 | 2.4 | 2.1 | 1.7 | 2.2 | +0.9 |
| TOTAL | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 | 168 |  |

Table 2. 2003-2013 ATUS Differences for Selected Years by Gender (In Hours per Week, Ages 15+)

|  | MEN |  |  |  |  |  | WOMEN |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| YEAR | 2003 | 2006 | 2009 | 2012 | 2013 | Change | 2003 | 2006 | 2009 | 2012 | 2013 | Change |
| $\mathrm{n}=$ | 9052 | 5516 | 5642 | 5536 | 5082 |  | 11,668 | 7427 | 7491 | 6907 | 6303 |  |
| PAID WORK | 31.9 | 31.7 | 29.8 | 29.2 | 29.4 | -2.5 | 20.2 | 21.1 | 19.9 | 20.6 | 19.4 | -0.8 |
| WORK | 28.6 | 28.7 | 26.7 | 26.2 | 26.6 | -2.0 | 18.4 | 19.2 | 18.1 | 18.7 | 17.6 | -0.7 |
| COMMUTE | 3.3 | 3.0 | 3.1 | 3.0 | 2.8 | -0.5 | 1.9 | 1.9 | 1.9 | 1.9 | 1.8 | -0.1 |
| EDUCATION | 3.1 | 3.1 | 3.0 | 3.7 | 3.3 | +0.2 | 3.4 | 3.7 | 3.5 | 3.3 | 3.3 | -0.1 |
| CLASSES | 2.0 | 2.0 | 1.8 | 2.1 | 1.9 | -0.1 | 2.0 | 2.2 | 1.9 | 1.8 | 1.7 | -0.3 |
| HOMEWORK | 0.8 | 0.9 | 1.0 | 1.2 | 1.2 | +0.4 | 1.1 | 1.2 | 1.2 | 1.1 | 1.3 | +0.3 |
| OTHER | 0.3 | 0.2 | 0.2 | 0.4 | 0.3 | -0.1 | 0.4 | 0.3 | 0.4 | 0.3 | 0.3 | -0.1 |
| FAMILY | 18.3 | 17.4 | 17.7 | 16.8 | 17.4 | -0.9 | 30.0 | 29.0 | 28.2 | 27.0 | 27.7 | -2.3 |
| HOUSEWORK | 1.6 | 1.7 | 1.8 | 1.9 | 1.8 | +0.2 | 6.8 | 6.6 | 6.4 | 6.3 | 6.1 | -0.7 |
| COOK | 1.8 | 2.0 | 2.0 | 2.0 | 2.3 | +0.5 | 5.5 | 5.3 | 5.4 | 5.3 | 5.6 | +0.1 |
| LAWN, ETC. | 1.8 | 1.8 | 1.9 | 1.7 | 1.8 | -0.1 | 1.0 | 1.0 | 0.9 | 0.9 | 0.8 | -0.1 |
| MANAGE | 0.8 | 0.8 | 0.8 | 0.7 | 0.7 | -0.0 | 1.1 | 1.0 | 1.1 | 1.0 | 1.1 | +0.0 |
| OTHER HW | 2.1 | 2.0 | 1.9 | 1.8 | 1.9 | -0.1 | 2.4 | 2.4 | 2.2 | 2.2 | 2.2 | -0.2 |
| SHOPPING | 2.2 | 2.0 | 2.1 | 1.9 | 2.0 | -0.2 | 3.4 | 3.6 | 3.2 | 3.0 | 3.1 | -0.2 |
| SERVICES | 2.6 | 2.5 | 2.4 | 2.3 | 2.4 | -0.2 | 3.2 | 3.2 | 3.0 | 2.9 | 2.9 | -0.3 |
| HH CHILD CARE | 1.7 | 1.7 | 2.0 | 1.9 | 1.9 | +0.2 | 4.1 | 4.0 | 4.0 | 3.7 | 3.8 | -0.3 |
| HH ADULT CARE | 0.7 | 0.6 | 0.6 | 0.6 | 0.6 | -0.1 | 1.2 | 1.0 | 0.9 | 0.9 | 1.1 | -0.1 |
| NON-HH CARE | 1.8 | 1.3 | 1.4 | 1.1 | 1.2 | -0.6 | 2.1 | 1.7 | 1.5 | 1.4 | 1.5 | -0.6 |
| OTHER | 1.3 | 0.9 | 0.8 | 0.8 | 0.8 | -0.5 | -0.7 | -0.7 | -0.3 | -0.5 | -0.5 | +0.2 |
| PERSONAL CARE | 72.6 | 73.3 | 73.6 | 73.6 | 74.0 | +1.4 | 75.0 | 75.6 | 75.8 | 76.6 | 76.7 | +1.7 |
| SLEEP | 59.3 | 59.9 | 60.3 | 60.2 | 60.6 | +1.2 | 60.5 | 60.8 | 61.1 | 62.0 | 61.7 | +1.2 |
| EAT | 8.7 | 8.8 | 8.8 | 9.1 | 8.8 | +0.2 | 8.2 | 8.5 | 8.4 | 8.4 | 8.4 | +0.1 |
| GROOM | 4.6 | 4.5 | 4.5 | 4.3 | 4.6 | +0.0 | 6.2 | 6.3 | 6.3 | 6.2 | 6.6 | +0.4 |
| FREE TIME | 40.9 | 41.1 | 42.3 | 43.1 | 41.9 | +1.1 | 37.9 | 37.0 | 38.8 | 38.8 | 38.4 | +0.5 |
| RELIGION | 0.8 | 0.7 | 0.9 | 0.8 | 0.8 | +0.0 | 1.1 | 0.9 | 1.2 | 1.3 | 1.2 | +0.0 |
| CLUB,ORG | 0.9 | 0.9 | 1.1 | 0.8 | 0.9 | +0.0 | 1.0 | 0.9 | 1.0 | 1.0 | 1.0 | +0.0 |
| SOCIALIZE | 5.1 | 5.0 | 4.4 | 5.0 | 4.6 | -0.5 | 5.8 | 5.6 | 5.4 | 5.4 | 5.4 | -0.3 |
| TELEPHONE | 0.9 | 0.8 | 1.0 | 0.8 | 0.7 | -0.2 | 1.7 | 1.8 | 1.8 | 1.4 | 1.4 | -0.3 |
| FITNESS | 2.7 | 2.7 | 2.9 | 2.9 | 2.8 | +0.1 | 1.4 | 1.3 | 1.5 | 1.7 | 1.4 | -0.0 |
| TV | 19.3 | 19.6 | 21.7 | 21.5 | 20.9 | +1.6 | 16.9 | 16.5 | 17.9 | 18.3 | 18.0 | +1.1 |
| OTHER FREE | 11.1 | 11.4 | 10.5 | 11.3 | 11.2 | +0.1 | 10.0 | 10.0 | 10.0 | 9.9 | 10.0 | -0.0 |
| OTHER | 1.2 | 1.4 | 1.6 | 1.6 | 1.9 | +0.7 | 1.4 | 1.5 | 1.8 | 1.7 | 2.4 | +1.0 |
| TOTAL | 168 | 168 | 168 | 168 | 168 |  | 168 | 168 | 168 | 168 | 168 |  |

Table 3. 2003-2013 ATUS Grouped Year Differences by Gender (In Hours per Week Ages 18-64)

|  | MEN |  |  |  |  | WOMEN |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| YEAR | $\begin{aligned} & \text { 2003- } \\ & 2004 \end{aligned}$ | $\begin{gathered} 2005- \\ 2007 \end{gathered}$ | $\begin{aligned} & \text { 2008- } \\ & 2010 \end{aligned}$ | $\begin{aligned} & \text { 2011- } \\ & 2013 \end{aligned}$ | Change | $\begin{aligned} & 2003- \\ & 2004 \end{aligned}$ | $\begin{aligned} & 2005- \\ & 2007 \end{aligned}$ | $\begin{aligned} & 2008- \\ & 2010 \end{aligned}$ | $\begin{aligned} & \text { 2011- } \\ & 2013 \end{aligned}$ | Change |
| $\mathrm{n}=$ | 11,999 | 13,015 | 13,538 | 12,510 |  | 15,142 | 16,687 | 16,754 | 15,105 |  |
| PAID WORK | 37.3 | 37.5 | 36.0 | 35.4 | -1.9 | 25.3 | 26.4 | 25.4 | 25.1 | -0.2 |
| WORK | 33.7 | 34.0 | 32.3 | 31.9 | -1.8 | 23.1 | 24.1 | 23.1 | 22.7 | -0.4 |
| COMMUTE | 3.6 | 3.5 | 3.7 | 3.5 | -0.1 | 2.2 | 2.2 | 2.3 | 2.4 | +0.2 |
| EDUCATION | 2.0 | 1.8 | 1.8 | 2.3 | +0.3 | 2.3 | 2.2 | 2.4 | 2.2 | -0.1 |
| CLASSES | 1.0 | 0.8 | 0.8 | 1.0 | -0.0 | 1.1 | 1.0 | 0.9 | 0.8 | -0.2 |
| HOMEWORK | 0.7 | 0.8 | 0.8 | 1.1 | +0.3 | 1.0 | 1.0 | 1.2 | 1.1 | +0.1 |
| OTHER | 0.2 | 0.1 | 0.2 | 0.3 | +0.0 | 0.3 | 0.2 | 0.3 | 0.2 | -0.0 |
| FAMILY | 18.3 | 17.9 | 17.8 | 17.1 | -1.1 | 31.3 | 30.3 | 29.1 | 28.3 | -3.1 |
| HOUSEWORK | 1.6 | 1.8 | 1.8 | 1.9 | +0.3 | 6.6 | 6.7 | 6.2 | 6.1 | -0.4 |
| COOK | 1.8 | 2.0 | 2.2 | 2.2 | +0.4 | 5.4 | 5.2 | 5.3 | 5.5 | +0.1 |
| LAWN, ETC. | 1.6 | 1.8 | 1.7 | 1.4 | -0.2 | 0.9 | 0.8 | 0.7 | 0.7 | -0.2 |
| MANAGE | 0.7 | 0.8 | 0.7 | 0.7 | -0.1 | 1.1 | 1.0 | 1.0 | 0.9 | -0.2 |
| OTHER HW | 2.0 | 1.9 | 1.9 | 1.9 | -0.1 | 2.5 | 2.5 | 2.4 | 2.2 | -0.3 |
| SHOPPING | 2.2 | 2.1 | 2.0 | 2.0 | -0.2 | 3.6 | 3.6 | 3.3 | 3.1 | -0.5 |
| SERVICES | 2.4 | 2.3 | 2.2 | 2.2 | -0.2 | 3.3 | 3.2 | 3.0 | 2.8 | -0.5 |
| HH CHILD CARE | 2.2 | 2.1 | 2.3 | 2.3 | +0.1 | 5.2 | 5.1 | 4.9 | 4.8 | -0.4 |
| HH ADULT CARE | 0.7 | 0.6 | 0.6 | 0.7 | -0.0 | 1.3 | 1.2 | 1.1 | 1.1 | -0.2 |
| NON-HH CARE | 1.7 | 1.3 | 1.3 | 1.2 | -0.6 | 2.2 | 1.7 | 1.7 | 1.5 | -0.7 |
| OTHER | 1.4 | 1.2 | 1.0 | 0.8 | -0.6 | -0.7 | -0.7 | -0.7 | -0.5 | +0.2 |
| PERSONAL CARE | 71.6 | 72.1 | 72.4 | 72.6 | +1.0 | 73.9 | 74.3 | 74.6 | 75.8 | +1.9 |
| SLEEP | 58.4 | 58.7 | 59.2 | 59.5 | +1.1 | 59.6 | 60.0 | 60.2 | 61.3 | +1.7 |
| EAT | 8.6 | 8.8 | 8.7 | 8.7 | +0.0 | 8.0 | 8.2 | 8.1 | 8.2 | +0.1 |
| GROOM | 4.6 | 4.6 | 4.6 | 4.4 | -0.1 | 6.2 | 6.2 | 6.3 | 6.3 | +0.0 |
| FREE TIME | 37.9 | 37.5 | 38.4 | 38.7 | +0.9 | 34.1 | 33.5 | 34.7 | 34.7 | +0.6 |
| RELIGION | 0.7 | 0.7 | 0.8 | 0.8 | +0.0 | 0.9 | 1.0 | 1.1 | 1.0 | +0.1 |
| CLUB,ORG | 0.8 | 0.9 | 0.9 | 0.7 | -0.1 | 1.0 | 1.0 | 1.0 | 1.0 | -0.1 |
| SOCIALIZE | 5.0 | 4.8 | 4.5 | 4.6 | -0.3 | 5.6 | 5.4 | 5.2 | 5.3 | -0.4 |
| TELEPHONE | 0.8 | 0.7 | 0.8 | 0.7 | -0.1 | 1.5 | 1.4 | 1.5 | 1.2 | -0.3 |
| FITNESS | 2.5 | 2.5 | 2.5 | 2.5 | +0.1 | 1.3 | 1.3 | 1.3 | 1.5 | +0.2 |
| TV | 18.4 | 18.2 | 19.6 | 19.4 | +1.0 | 15.1 | 15.0 | 16.2 | 16.2 | +1.1 |
| IT | 1.1 | 1.2 | 1.2 | 1.6 | +0.5 | 0.8 | 0.8 | 1.1 | 1.3 | +0.5 |
| AUDIO | 0.5 | 0.5 | 0.5 | 0.4 | -0.1 | 0.2 | 0.2 | 0.2 | 0.2 | -0.0 |
| READ | 1.6 | 1.6 | 1.3 | 1.3 | -0.4 | 2.2 | 2.2 | 2.0 | 1.9 | -0.2 |
| GAMES | 1.3 | 1.4 | 1.6 | 1.8 | +0.5 | 0.7 | 0.7 | 0.9 | 0.8 | +0.1 |
| HOBBIES | 0.3 | 0.2 | 0.2 | 0.2 | -0.0 | 0.2 | 0.2 | 0.2 | 0.2 | -0.0 |
| RELAX | 2.0 | 2.0 | 1.7 | 2.0 | -0.0 | 1.8 | 1.7 | 1.6 | 1.7 | -0.1 |
| OTHER FREE | 2.8 | 2.9 | 2.8 | 2.6 | -0.2 | 2.7 | 2.7 | 2.4 | 2.5 | -0.3 |
| OTHER | 0.9 | 1.2 | 1.6 | 1.8 | +0.8 | 1.1 | 1.3 | 1.9 | 2.0 | +0.9 |
| TOTAL | 168 | 168 | 168 | 168 |  | 168 | 168 | 168 | 168 |  |

Table 4: 2003-2013 MCA-adjusted Grouped Year Differences by Gender (In Hours per Week, Ages 18-64)

|  | MEN |  |  |  |  |  | WOMEN |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| YEAR | $\begin{aligned} & 2003- \\ & 2004 \end{aligned}$ | $\begin{aligned} & 2005- \\ & 2007 \end{aligned}$ | $\begin{aligned} & \text { 2008- } \\ & 2010 \end{aligned}$ | $\begin{aligned} & 2011- \\ & 2013 \end{aligned}$ | Beta | Fvalue | $\begin{aligned} & 2003- \\ & 2004 \end{aligned}$ | $\begin{gathered} 2005- \\ 2007 \end{gathered}$ | $\begin{aligned} & \text { 2008- } \\ & 2010 \end{aligned}$ | $\begin{aligned} & 2011- \\ & 2013 \end{aligned}$ | Beta | Fvalue |
| n= | 11,999 | 13,015 | 13,538 | 12,510 |  |  | 15,142 | 16,687 | 16,754 | 15,105 |  |  |
| PAID WORK |  |  |  |  |  |  |  |  |  |  |  |  |
| WORK | 26.86 | 27.52 | 27.13 | 27.38 | 0.01 | 1.2NS | 18.21 | 18.64 | 18.40 | 18.93 | 0.01 | 2.5** |
| EDUCATION |  |  |  |  |  |  |  |  |  |  |  |  |
| HOMEWORK | 0.59 | 0.60 | 0.65 | 0.64 | 0.01 | 0.5NS | 0.79 | 0.78 | 0.89 | 0.87 | 0.01 | 1.7NS |
| FAMILY |  |  |  |  |  |  |  |  |  |  |  |  |
| HOUSEWORK | 2.05 | 2.30 | 2.28 | 2.44 | 0.02 | 6.8** | 7.12 | 7.37 | 6.93 | 6.78 | 0.02 | 4.2* |
| NON-HH CARE | 1.83 | 1.48 | 1.39 | 1.30 | 0.03 | 15.8** | 2.11 | 1.60 | 1.56 | 1.41 | 0.04 | 29.9** |
| PERSONAL CARE |  |  |  |  |  |  |  |  |  |  |  |  |
| SLEEP | 59.44 | 59.77 | 60.31 | 60.52 | 0.03 | 11.9** | 60.72 | 61.20 | 61.68 | 62.07 | 0.03 | 21.4** |
| FREE TIME |  |  |  |  |  |  |  |  |  |  |  |  |
| SOCIALIZE | 5.69 | 5.49 | 5.15 | 5.14 | 0.02 | 6.9** | 6.29 | 5.99 | 5.94 | 5.83 | 0.01 | 4.5* |
| TV | 19.56 | 19.37 | 20.81 | 20.53 | 0.03 | 17.0** | 15.20 | 15.74 | 16.73 | 16.61 | 0.04 | 30.0** |
| IT | 1.17 | 1.18 | 1.18 | 1.44 | 0.02 | 7.9** | 0.75 | 0.78 | 0.93 | 1.20 | 0.04 | 37.2** |
| READ | 2.00 | 1.85 | 1.49 | 1.32 | 0.05 | 47.6** | 2.50 | 2.39 | 2.03 | 1.83 | 0.04 | 41.7** |
| GAMES | 1.15 | 1.20 | 1.28 | 1.37 | 0.01 | 2.9* | 0.70 | 0.76 | 0.87 | 0.78 | 0.02 | 4.8* |

Note: NS F not significant * F=2-5, ** F > 5;
Decreasing trends are highlighted in dark;
increasing trends in lighter shade

Table 5. 2003-2013 ATUS Year Differences (In Hours per Week), Ages 18-64

| YEAR | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | Change |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\mathrm{n}=$ | 16,281 | 10,860 | 10,274 | 9,983 | 9,445 | 9,867 | 10,161 | 10,264 | 9,598 | 9,457 | 8,560 |  |
| WITH WHOM |  |  |  |  |  |  |  |  |  |  |  |  |
| ALONE | 34.3 | 34.8 | 34.5 | 34.9 | 35.2 | 36.1 | 36.4 | N/A | N/A | N/A | N/A | N/A |
| MATE | 22.4 | 22.5 | 20.6 | 19.5 | 20.3 | 19.8 | 20.6 | 20.1 | 19.5 | 20.5 | 20.5 | -1.9 |
| PARENTS | 1.8 | 1.9 | 1.8 | 2 | 1.9 | 1.9 | 1.9 | 2.2 | 2 | 2.2 | 2 | +0.2 |
| OWN KID | 16.9 | 16.1 | 18.1 | 18.2 | 17.6 | 17.6 | 17.1 | 17.4 | 16.7 | 16.9 | 16.1 | -0.8 |
| OTHER KID | 2 | 2.1 | 2.3 | 2.1 | 1.9 | 1.8 | 1.7 | 2 | 1.5 | 1.6 | 1.7 | -0.3 |
| OTHER RELATIVE | 12.5 | 12.4 | 13 | 13.4 | 12.5 | 13 | 13.4 | 13 | 12.4 | 12.8 | 12.7 | +0.2 |
| NEIGHBOR | 0.8 | 0.8 | 0.7 | 0.7 | 0.6 | 0.7 | 0.8 | 1.2 | 1.2 | 1.2 | 1.1 | +0.3 |
| FRIEND | 6.9 | 7 | 6.5 | 6.3 | 6.3 | 6.1 | 6.3 | 6.9 | 6.7 | 6.5 | 7 | +0.1 |
| CO-WORKER | N/A | N/A | N/A | N/A | N/A | N/A | N/A | 20.7 | 21.5 | 21.8 | 21.6 | N/A |
| WHERE |  |  |  |  |  |  |  |  |  |  |  |  |
| HOME | 53.9 | 54.6 | 53.9 | 54.1 | 54.1 | 55.1 | 56 | 55.5 | 55.6 | 56.2 | 56.1 | +2.2 |
| OTHER'S HOME | 5.7 | 5.7 | 5.7 | 5.5 | 5.5 | 5.6 | 5.5 | 5.6 | 5.4 | 5.5 | 5.6 | -0.1 |
| RESTAURANT | 2.2 | 2.2 | 2.2 | 2.3 | 2.3 | 2.2 | 2.1 | 2.2 | 2.1 | 2.1 | 2.1 | -0.1 |
| OUTSIDE | 12.3 | 14 | 14 | 11.6 | 14.2 | 13.1 | 13.1 | 14.5 | 14.4 | 13.5 | 12.2 | -0.1 |
| WORK | 17.3 | 17 | 17.5 | 17.3 | 18.1 | 17.3 | 16.2 | 16 | 16.5 | 16 | 15.8 | -1.5 |
| SCHOOL | 1.7 | 1.6 | 1.7 | 1.7 | 2 | 1.7 | 1.7 | 1.7 | 1.8 | 1.5 | 1.5 | -0.2 |
| STORE | 3.3 | 3.3 | 3.2 | 3.3 | 3.2 | 3 | 3 | 2.9 | 2.9 | 2.9 | 2.9 | -0.4 |
| CHURCH | 1.8 | 1.8 | 1.8 | 1.8 | 1.8 | 1.8 | 1.7 | 1.7 | 1.8 | 1.8 | 1.8 | 0.0 |
| EDUCATION | 1.7 | 1.8 | 1.9 | 2.3 | 2 | 2 | 2.1 | 2.1 | 2.2 | 2 | 2 | +0.3 |
| TRAVEL | 9.2 | 8.9 | 8.9 | 8.8 | 8.5 | 8.6 | 8.4 | 8.5 | 8.5 | 8.6 | 8.5 | -0.7 |
| PUBLIC | 0.5 | 0.4 | 0.4 | 0.5 | 0.4 | 0.5 | 0.4 | 0.4 | 0.4 | 0.5 | 0.5 | 0.0 |
| CAR | 8.1 | 8 | 7.9 | 7.7 | 7.6 | 7.5 | 7.4 | 7.5 | 7.5 | 7.4 | 7.4 | -0.7 |
| SUBWAY | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.0 |
| OTHER TRAVEL | 0.5 | 0.4 | 0.5 | 0.5 | 0.4 | 0.5 | 0.5 | 0.5 | 0.5 | 0.6 | 0.5 | 0.0 |

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