Work Hour Fluctuations and Work Hour Mismatches

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INTRODUCTION

Neoclassical accounts of labor markets suggest that workers are free to choose the number of hours they work for pay (Bryan, 2007). This implies that workers’ actual hours will match their preferred hours. The argument is grounded in the logic of market efficiency. Employers who do not offer the hours workers prefer will have to pay a wage premium to retain workers or else risk losing them to employers who offer more attractive hours. Employers are predicted to avoid both wage premiums and turnover by offering the hours workers prefer. The underlying message is that employers accommodate worker preferences.

Much research from the past twenty years, however, challenges these claims by highlighting the plight of overworked employees and the unwavering demands of employers for long work weeks. Many people in the U.S. work more hours than they prefer (Golden & Gebreselassie, 2007; Jacobs & Gerson, 2004). Furthermore, it appears that the desire for a reduction in work hours often goes unresolved for years (Reynolds & Aletraris, 2010). In short, the main theme of research on overwork (or work hour mismatches more generally) is not accommodation but rather the inflexibility of work hour demands.

As noted by Lambert, Haley-Lock, and Henly (2012), other research from this same period offers a third image of labor markets by showing that employment instability is on the rise. Workers are increasingly likely to have non-standard and often precarious employment arrangements (Kalleberg, 2011). Also, many workers have unpredictable schedules and frequent work hour shortages (Henly & Lambert, 2014; Lambert et al., 2012). Indeed, in the wake of the great recession, millions of Americans had their hours cut or their jobs eliminated altogether. This research thus introduces another theme: instability.

Motivated by these contrasting images of paid work, this paper examines work hour accommodation, work hour inflexibility, and work hour instability. It seems that they all occur with some frequency (although perhaps for different workers), and I argue that they are all closely related to work hour mismatches. First, I present a conceptual framework that clarifies the nature of these concepts and explains how they are related to work hour mismatches. Second, I review what panel data are available about these concepts. Finally, I propose a set of survey questions about these issues. If they were added to an existing U.S. panel study, they could help research on U.S. work hours catch up with (and perhaps surpass) research being conducted in Germany, United Kingdom, and Australia.

CONCEPTUAL FRAMEWORK

Many workers experience fluctuations in their actual hours, but not all workers experience them for the same reasons. Some work hour fluctuations are driven by worker preferences. Neoclassical accounts of labor markets suggest that workers can change their work hours to match their preferences. Empirical evidence suggests that, although some workers can do this without changing their jobs, changing jobs or employers often facilitates such changes (Reynolds & Johnson, 2012; Reynolds & Aletraris, 2006, 2010; Böheim & Taylor, 2003). Work hour fluctuations, however, can also be driven by employers or markets rather than by workers. Some authors
argue that market demand causes fluctuations in annual work hours (Bluestone & Rose, 1997). Other authors identify market demand as a primary cause of work hour fluctuations from day to day or week to week, particularly among low-wage, part-time workers (Lambert, Fugiel, & Henly, 2014). Fluctuations driven by market demand reflect the weak regulation of working hours in the U.S. and employer efforts to minimize labor costs (Lambert et al., 2012). Firms can save money, for instance, by increasing the hours of salaried employees when demand is high. They can save money by reducing the working time of hourly employees when demand is low.

The meaning and consequences of work hour fluctuations thus depend on what is causing them, and it is useful to determine when they do (and do not) correspond to worker preferences. Researchers have long recognized a similar distinction when studying part-time work by separating involuntary part-time workers from those who prefer to work part-time. People who are not employed are also divided into different groups. People who work no hours but prefer to be working for pay are separated from other non-employed people and are classified as unemployed or discouraged workers. A similar distinction should be made between workers who experience fluctuations in their actual hours because of their preferences and those who experience fluctuations they do not desire.

These considerations lead to three key definitions. Workers whose hours fluctuate because they choose to increase or decrease their hours experience work hour accommodation. Many recent policy initiatives encourage employers to offer such accommodations (Lambert et al., 2012). When workers want to change the number of hours they work but their work hours remain unchanged, they experience work hour inflexibility. Although recent research has emphasized the experiences of people who work many hours and are unable to work fewer, there are also people who typically work few hours but wish they could work more hours (Lautsch & Scully, 2007). Finally, workers who lack control over their hours and experience unwanted fluctuations in the number of hours they work experience work hour instability.

As suggested by these definitions, work hour accommodation, work hour inflexibility, and work hour instability are closely related to work hour mismatches, and ideally they would all be studied together. If employers accommodate work hour preferences, they help people avoid, reduce, or resolve work hour mismatches. In cases of work hour inflexibility, in contrast, actual hours are stable and do not change with worker preferences, thus tending to cause or exacerbate hour mismatches, especially when circumstances outside the workplace change. Finally, in cases of work hour instability, actual work hours fluctuate without worker input and without regard for worker preferences. This, too, can generate or exacerbate hour mismatches. In short, the term work hour mismatches describes the correspondence between workers’ actual and preferred hours at a given point in time. The terms work hour accommodation, work hour inflexibility, and work hour instability describe different linkages between actual and preferred hours. These linkages play a crucial role in determining whether hour mismatches are created, exacerbated, reduced, resolved, or avoided over time.

EXISTING PANEL DATA

To measure work hour accommodation, work hour inflexibility, and work hour instability over time and to understand their connection to work hour mismatches, U.S. researchers need additional data. First, they need panel studies that track how many hours individuals actually work, how many hours they prefer to work, and the gap between their actual and preferred hours (i.e., work hour mismatches) over time. Using such data, researchers could move beyond the current focus on the cross-section and study changes in workers’ hour mismatches, their cumulative experiences with hour mismatches, and the underlying changes in actual and preferred hours that influence mismatches. Second, U.S. researchers need new survey items about the degree to which work hour fluctuations are initiated by workers and correspond to their preferences. Such data are crucial for determining whether roughly parallel changes in actual and preferred work hours indicate the fulfillment of worker requests or indicate worker acquiescence. Together, these types of data could be used to assess how much work hour accommodation, inflexibility, and instability exist in the labor market. If collected on a daily, weekly, or monthly basis, these data could also be used to assess the underlying assumption in most
surveys that actual and preferred work hours do not change much and that it is sufficient to measure them on an annual basis. Recent empirical evidence suggests that at least for some groups of workers, actual hours can vary widely (and unexpectedly) on a daily basis (Lambert et al., 2012). As I outline below, several countries have been collecting some of these data for years.

Panel Data about Preferred Hours/Work Hour Mismatches
Panel studies in the United Kingdom, Germany, and Australia have long provided researchers with longitudinal information about individuals’ hour mismatches and/or preferred hours. For instance, from 1991 to 2009, the British Household Panel Survey (BHPS) asked respondents on an annual basis both how many hours they actually worked per week and the question below.1

Thinking about the hours you work, assuming that you would be paid the same amount per hour, would you prefer to
1. Work fewer hours than you do now
2. Work more hours than you do now
3. Or carry on working the same number of hours?
4. Don’t know/can’t say

The German Socio-Economic Panel (SOEP) collects information about the precise number of hours respondents prefer to work. The SOEP asks:

If you could choose your own working hours, taking into account that your income would change according to the number of hours: How many hours would you want to work? ___ , ____ hours per week

When combined with standard information about the number of hours respondents work per week, this makes it possible to identify hour mismatches. Furthermore, because researchers can see changes in preferred hours over time, they can also determine if hour mismatches are influenced by changes in actual hours, preferred hours, or both.

The Household Income and Labour Dynamics in Australia (HILDA) survey combines these two approaches. It asks respondents about hour mismatches like the BHPS, but it also asks about the precise number of hours respondents prefer to work like the SOEP. Asking both questions provides a way to double-check respondents’ answers: e.g., if they report wanting to work fewer hours, their preferred hours should be fewer than their actual hours. This reduces concerns that errors in the reporting of actual hours will lead to errors when measuring hour mismatches. HILDA asks:

If you could choose the number of hours you work each week, and taking into account how that would affect your income, would you prefer to work …
a. fewer hours than you do now?
b. about the same hours as you do now?
c. or more hours than you do now?
d. Don’t know

In total, how many hours a week, on average, would you choose to work? Again, take into account how that would affect your income.

Currently, there is no nationally representative U.S. study that follows individuals over time and provides regular data about hour mismatches or their preferred hours of work. From 1969–87, the Panel Study of Income Dynamics (PSID) asked whether respondents would have preferred to work more or fewer hours in the
previous year, but it does not currently include any questions about work hour mismatches. Other U.S. panel studies have provided more recent, but sporadic, data. The National Survey of Families and Households (NSFH) provided three waves of data (1987–88, 1992–94, and 2001–2003). It asked,

*If you could work just the number of hours in paid employment that you would like, how many hours per week would that be?*

The Americans’ Changing Lives survey (ACL) now also provides three data points (1989, 1994, and 2011). It asks the three questions below, in the order presented.

*Thinking about your job or jobs over the past year, would you have liked to work more?*

*Thinking about your job or jobs over the past year, would you have liked to work less?*

*If you could work any number of hours you wanted to, how many hours would you like to work each week?*

The data points from these surveys, however, are not very numerous and they are too far apart for many purposes. This lack of data prevents researchers from gaining a comprehensive understanding of how work hour mismatches and preferred hours change over time in the U.S.

**Panel Data about Fluctuations in Actual Hours.**

There are also very little panel data about how much actual or preferred work hours vary from day to day or week to week. Many surveys in the U.S. and abroad gather information about the number of hours people actually work per week, but most survey questions are not very useful for studying work hour instability. In fact, as noted by Lambert et al. (2012), most survey questions about actual weekly work hours are designed to smooth out variations and ascertain the average or usual number of hours people work per week. The HILDA survey, for instance, goes to some length to achieve this smoothing. Respondents are first asked how many hours per week they “usually” work. If they indicate that their hours vary, they are asked how many hours they work per week “on average over a usual 4-week period.” Such smoothing may be desirable for some purposes, but it hides fluctuations in work hours that can have important ramifications for workers. The Current Population Survey (CPS) allows a bit more information about work hour fluctuations to come through by asking about both usual weekly hours and the number of hours the respondent worked in the previous week. More precise data, however, are needed to support a rigorous analysis.

To better understand how actual work hours fluctuate, researchers must have data about actual work hours at multiple time points that do not smooth out the variation. Ideally, this information would be collected frequently and in a manner that reduces recall error. Lambert et al. (2012), for instance, draw on payroll data to determine how much actual hours vary from week to week. Payroll data, however, are often not available, especially for a nationally representative sample of workers. In occupations where workers are not paid by the hour, such data may not be available at all.

Good quality data about daily fluctuations in work hours are sometimes collected with a “weekly schedule of working time,” as in the Harmonized European Time Use Surveys (HETUS) (Gershuny & Robinson, 2013). These instruments ask respondents to fill in a grid describing their entire work week. The resulting information shows what days they worked, how many hours they worked each day, and what times they worked. It can be used to calculate many useful statistics including: total hours worked per week, average hours worked per day, and how the number and timing of hours vary from day to day. Such instruments are usually completed over the course of a week and then returned through the mail. In a standard survey, however, respondents would have to provide the information retrospectively, and it is not clear how well they would remember exactly when they were working on each day of the previous week.
In lieu of payroll data or seven-day time diaries, daily or weekly work hour fluctuations can be measured with retrospective questions. Lambert et al. (2014) calculate a work hour “instability ratio” over a month by asking National Longitudinal Survey of Youth 1997 (NLSY97) respondents to report the greatest and fewest hours they worked per week during the last month. The ratio is calculated by taking the difference between the greatest and fewest and dividing by the reported number of usual hours. Currently, these NLSY97 questions about fluctuations in actual work hours appear to be the best available source of data about work hour fluctuations in the U.S. If they were combined with additional questions about workers’ preferences, it would be possible to determine if the observed fluctuations are evidence of work hour accommodation or work hour instability.

RECOMMENDATIONS FOR U.S. DATA COLLECTION

Developing good quality measures of work hour accommodation, work hour inflexibility, and work hour instability will require substantial work that goes beyond the scope of this paper. The recommendations below, however, are intended to help in that effort. They outline ways of improving the measurement of work hour preferences and work hour mismatches in the U.S. To ensure that new U.S. survey items about work hour preferences and work hour mismatches produce the best information possible, they must be carefully designed to avoid the weaknesses of existing approaches. Existing questions from panel studies in other counties (see above) provide a good starting point, but it is also useful to consider questions that appear on two trend studies in the United States.

The CPS has fielded a question about work hour mismatches several times. It asks:

*If you had a choice, would you prefer to work the same number of hours and earn the same money, fewer hours at the same rate of pay and earn less money, or more hours at the same rate of pay and earn more money?*

This question includes a prompt that encourages respondents to imagine that they could choose the number of hours they work (i.e., “If you had a choice . . .”). This is useful because respondents who are not directed to imagine that they could change their hours may get distracted by the current feasibility of such a change and may thus have trouble reporting what they prefer (Campbell & van Wanrooy, 2013).

Still, this CPS question is of limited usefulness when asked alone for two reasons. First, it does not indicate exactly how many hours respondents prefer to work and thus provides no information about the size of the gap between their actual and preferred hours. If it were asked in a panel survey, this weakness would also obscure fluctuations in preferred hours, making it impossible to see how changes in respondents’ preferences help generate, resolve, or maintain work hour mismatches. Second, the question specifies a direct linkage between work hours and pay. This discourages many workers from reporting the work hour changes they actually prefer. Salaried workers, workers who already work overtime and are not paid for it, and workers who get an overtime premium must all answer this question hypothetically because their income would not change in the way specified.

Rather than focusing exclusively on the hours workers prefer under this hypothetical scenario (or even what they prefer under their actual situation), it may be better to begin by determining what hours they find ideal. This is the approach taken in the National Study of the Changing Workforce (NSCW). It asks,

*If you could do what you wanted to do, IDEALLY how many hours in total would you like to work?*

By using the word *ideally* and not mentioning pay, this question directs respondents away from their current situation and issues of feasibility. It asks them to imagine the best alternative they can, even if it might not be currently available. This is important to the extent that people do not know that better options are available in other jobs, organizations, and countries. Respondents who are focused on what they think is currently
feasible may say they want to keep working hours they find deeply problematic simply because the alternatives they know about are worse. By reporting what they find ideal, however, respondents provide a useful target for policy makers (Jacobs & Gerson, 2004) and a clearer indication of what they really want. As noted by Bielenski, Bosch, and Wagnernorst reported preferences are, “compromises between what is desirable and what is feasible” (2002: 16), but the NSCW question gets closer to what is desirable.

Because no single question can provide enough information to really understand a respondent’s preferred hours, a NSCW-style question should be combined with other questions. First, I would ask the two HILDA questions. As noted above, HILDA asks one question about hour mismatches directly. It prompts respondents to imagine that they could choose the number of hours and includes a reminder to consider how changing one’s work hours would influence one’s income. In HILDA, the specific nature of the linkage between hours and income is left unspecified, making the question suitable for respondents with a wide range of compensation arrangements. This change in wording allows respondents to report what they actually prefer in their current job and means that the CPS and HILDA questions actually tap two separate concepts. The CPS question asks what respondents would prefer under one particular hypothetical scenario that may not reflect their actual work situation. HILDA, in contrast, asks what respondents prefer under their current circumstances, and that is very useful. HILDA also asks respondents precisely how many hours they prefer to work, thus making it possible to track changes in preferred hours over time. When combined with information from a NSCW-type question, these questions from HILDA would allow researchers to compare the number of hours respondents find desirable with the number of hours they prefer given the constraints that they face.

By asking these three questions, a panel survey could determine if respondents currently wish to change their hours and how many hours they prefer to work under their current circumstances (HILDA), and also how many hours they would prefer to work ideally (NSCW). These questions could be asked whether or not respondents are working for pay, and they should include an explicit “Don’t know” option to address the possibility that respondents do not know how many hours they prefer to work (see Campbell & van Wanrooy, 2013). After respondents have answered these questions, they could then be asked what they would prefer under particular hypothetical scenarios. Such questions (e.g., would you trade 10% of your pay for 10% more time off?) could be used to assess support for potential policy initiatives.

It could also be helpful to ask some supplementary questions that clarify what respondents mean when they say they do not want to change their work hours under current circumstances (as measured by the HILDA questions). All employed respondents, for instance, could be asked how satisfied they are with their work hours. The HILDA survey does this, and it helps reveal the unpalatable choices that many workers face; some report not wanting to change their hours even though they are very dissatisfied with them. To ensure that respondents report their satisfaction with the number (rather than the timing) of the hours they work, the question should read, “How satisfied are you with the number of hours you work per week?”

A survey could provide even more insights by asking respondents who report work hour mismatches why they do not work the hours they prefer. The NSCW takes this approach when respondents indicate that they wish to work fewer hours. It would be useful to follow this example and expand it by asking similar questions of respondents who want to work more hours. The HILDA survey, for instance, asks why part-time workers do not work full-time, and it could be used as a starting point. In both cases, it might be helpful to ask respondents about the relative importance of various reasons rather than forcing them to pick only one or two reasons.

Finally, it would be useful to identify respondents who face work hour constraints. Although few analyses seem to recognize the conceptual difference, work hour constraints and work hour mismatches are not the same thing. The lack of a work hour mismatch does not (from a logical standpoint) indicate that work hour constraints are absent and that workers are free to choose their hours. A match between actual and preferred hours could indicate that people happen to prefer the hours their employers are willing to provide or have settled for
the hours that are available. The items included on the PSID from 1969 to 1987 recognized this distinction. They first asked whether respondents could have worked more hours and could have worked fewer hours than they did in the past year. If respondents indicated that they could not have worked more/fewer hours, they were then asked if they would have preferred to work more/fewer hours. This approach should be revived to reveal cases in which respondents have an hour constraint but nonetheless work the hours they prefer and thus report no work hour mismatch.

To make the most of these questions, they would have to be included in a suitable survey. Adding such questions to an existing U.S. panel study would be a relatively quick and efficient way to equip researchers with better tools for understanding Americans’ work hours. The PSID would be one fairly good option. The PSID is only administered biannually, but in contrast to alternatives like the General Social Survey, which now collects short panels, the PSID follows individuals over long periods of time, thus facilitating the study of change. The PSID is also integrated into the Cross-national Equivalent File (CNEF), and might thus facilitate international comparisons. Germany (SOEP), Australia (HILDA), and Korea (Korean Labor and Income Panel Study [KLIPS]) all contribute data to the CNEF files, and all of them collect information about work hour mismatches and/or the number of hours respondents prefer to work in a week. It could also be useful to add questions about work hour preferences and work hour mismatches to the NLSY97. Like the PSID, it also has long panels and is administered biannually. One disadvantage, however, is that respondents in the NLSY97 are from a smaller range of ages than those in the PSID. Finally, the CPS might also be a good option. It does not track people for long periods of time, but it has the advantage of collecting monthly interviews. CPS respondents are interviewed for four consecutive months, followed by an eight-month break, and then another set of four monthly interviews. Theoretically, this schedule would allow for collection of data about actual and preferred work hours on a monthly basis and would allow year-to-year comparisons. Currently, however, the CPS does not even ask about actual weekly hours in all of those interviews (only interview 4 and 8, the outgoing rotation groups). The addition of questions about actual hours, preferred hours, and work hour mismatches to all the monthly interviews might be more than the CPS can accommodate.

CONCLUSION
Scholars have provided at least three contrasting descriptions of work hours in the U.S. labor market. Neoclassical economics suggests that people are able to work the number of hours they prefer. Empirical work from the past two decades, however, indicates that work hours may be inflexible such that many people are working more hours than they prefer. Finally, recent work highlights the experiences of low-wage workers whose work hours often fluctuate in undesirable ways. In short, it is unclear to what extent U.S. workers experience work hour accommodation, work hour inflexibility, or work hour instability.

This paper accomplishes three things. First, it helps develop a conceptual framework for understanding the contrasting descriptions of the U.S. labor market. In particular, it helps define the concepts of work hour accommodation, work hour inflexibility, and work hour instability. Second, it links these concepts to research on work hour mismatches. I argue that work hour accommodation prevents or eliminates hour mismatches while work hour inflexibility and work hour instability tend to create or exacerbate work hour mismatches. Third, I highlight the need for new and improved data about work hour mismatches in the U.S. and discuss how best to address that need. The U.S. is far behind a number of other countries when it comes to measuring work hour mismatches. I recommend the development of a small collection of questions that would not only identify work hour mismatches, but also help reveal the obstacles that create them, the trade-offs people make when choosing their hours, and the extent to which people can control their hours in the first place. While no existing U.S. panel survey is ideal for collecting the data we need to fully understand work hour accommodation, work hour inflexibility, and work hour instability, the PSID or the CPS might be suitable platforms.
This paper, of course, only discusses some of the conceptual issues and methodological challenges related to studying work hour accommodation, work hour inflexibility, and work hour instability. To understand these issues well (especially the latter two), survey items and interview schedules must be redesigned to assess fluctuations in work hour preferences and work hours. Currently, most surveys try to determine average or typical hours per week (perhaps based on the assumption that work hour preferences and actual work hours are fairly stable). To better understand these concepts, which are related to changes in actual and preferred hours, we need information about variation. Ideally, surveys would collect information that would allow researchers to determine how much actual and preferred work hours vary on a daily, weekly, monthly, and yearly basis (perhaps by occupation). It is also important to determine if the fluctuations are driven by workers or employers. It may be possible to get an overview using cross-sectional surveys. Workers, for instance, may report that the number of hours they work varies substantially from day to day and week to week. Panel studies, however, will be needed to get accurate information about the variation that is found in the cross-section, because workers may not be able to provide detailed information in retrospect. In some cases, time-diary formats may be a useful tool, especially for studying daily variations in work hours. The shortcomings of current U.S. data, however, are substantial.

Whatever questions and data collection techniques are chosen, it will require time, funding, and probably cooperation from existing panel studies to make major progress in assessing work hour accommodation, work hour inflexibility, and work hour instability in a representative sample of U.S. workers. Furthermore, studying the full complexity of work hours also requires data about the timing and predictability of work hours and how they relate to worker preferences. In fact, the challenges are even more substantial in these areas because the existing literature on those topics is so sparse.

REFERENCES


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1 The BHPS has been replaced by the Understanding Society survey, which does not appear to ask about work hour mismatches or work hour preferences.

2 Heisz and La Rochelle-Côté (2006) calculate a similar measure they call the “mean absolute deviation” (MAD) to capture year-to-year instability in the total number of hours Canadians work per year. Bluestone and Rose (1997) calculate what they call a “Hi-Lo” measure by tracking PSID respondents over a decade and identifying those who reported at least one year in which they worked more than 2,400 hours and at least one year in which they worked less than 1,750 hours.

3 Similar dynamics might prevent many Americans from saying they prefer to take two months off from work after the birth of a baby. The problem is not that Americans might not like such leave. Rather, they may reject the idea because their employment experiences teach them that it is unrealistic. If Americans knew that people in most countries are entitled to many months of paid leave, they might push for better options.