



Unstable Scheduling, Precarious Employment, and Gender

A Working Paper of the EINet Measurement Group

Elaine McCrate | University of Vermont

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INTRODUCTION

Schedules are unstable when the hours or days of work vary with respect to timing or length, and this variability is largely not controlled by the worker. These schedules often additionally entail unpredictability from day to day or week to week. They all require workers to adjust their schedules to respond to variability in product market demand or disruptions in the production process (see Lambert & Henly, 2014). Because of prevailing gender divisions of labor between the home and the labor market in affluent western countries, unstable work schedules are likely to present different potential problems, risks, and rewards for men and women, and are often distributed differently between them. Men and women may also have different subjective reactions to unstable schedules that correspond with their different family responsibilities.

Jobs are precarious, as discussed by Arne Kalleberg in another paper in this series (2014), when they fall below prevailing normative standards of rights and employment protections for workers, which reduce or mitigate the uncertainties of economic life, especially the variability of earnings. Unstable schedules in this sense are strongly related to precarious employment when hourly workers are uncertain about their core total hours (that is, excluding overtime) and therefore about their core earnings. This is especially true when wages are low or total core weekly hours are unpredictable, thus amplifying the effects of uncertainty on insecurity.

If one further considers that livelihoods are generated both in the market and in the home, erratic work schedules generate another type of precariousness when they destabilize routines for household caregiving. Work done outside the market to stretch family budgets, make nutritious meals, help with homework, and get family members to the doctor are all just as essential to a family's standard of living as a paycheck. Because unstable job schedules feature both variability in the timing of work and lack of worker control over that variability, workers in these jobs lose a great deal of control over the ordinary routines of household labor, and most importantly over childcare. Workers who have little control over their schedules (both when they are variable and when they are not) also lose much of their ability to respond to unexpected contingencies at home.

As such, schedule instability potentially generates gender-specific insecurity and precariousness in employment in at least six ways. All of these make basic provisioning difficult, where provisioning is understood to include household production, labor market income, and income from other sources such as public transfers. In this paper I briefly discuss these six possible sources of gender-specific insecurity that are, or may be, associated with unstable schedules. Some of these are already reasonably well measured and documented, and some are not. We already know that some of them are strongly associated with gender, but in some cases the connection to gender is still hypothetical and requires further measurement and further research. In all cases I survey or propose measures for these sources of gendered schedule instability and precariousness.

1. Precariousness of caregiving. First, unstable work schedules jeopardize caregivers' ability to provide essential nonmarket services for children and elderly, sick, or disabled family members. When starting and stopping times vary and the worker does not control the specific times of work, the job assumes one of two things. First, it may assume an unencumbered worker—that is, someone with no family members who require personal care and who compete for priority with the worker's job. This is often a very young person without family responsibilities. Second, it may assume that someone (usually a woman) is continually available in the home to perform household labor for dependents and to handle unforeseen contingencies (sick children, no-show babysitters, etc.), while another adult (presumably a man) is more or less continually available to employers based on the latter's fluctuating demand for labor. As such, employed mothers who find themselves in jobs with erratic hours often find that their ability to care for their families is compromised, and they may limit their availability for unstable schedules (Clawson & Gerstel, 2014; McCrate, 2013, 2012). This is especially true when there is insufficient high-quality, affordable childcare that can accommodate unstable schedules to some extent.

The potential disruption of caregiving, and the consequent reinforcement of the traditional gender division of labor between the home and the market, is especially severe when long hours accompany schedule instability. For example, in Canada nearly 60 percent of hourly workers who usually work overtime get notice of their overtime schedule less than one day in advance, and 85 percent learn about their overtime schedules one week or less in advance (author's calculations from the Canadian Workplace and Employee Survey [WES], 2003). Since men's traditional gender roles are defined more exclusively around breadwinning, Dan Clawson and Naomi Gerstel (2014) found that American men in the health care occupations they studied welcomed long hours, and tolerated the variability and short notice that often accompany hours beyond the standard 35 to 40-hour work week.

2. Instability of income streams. Often workers with unstable schedules work a different total number of hours from week to week. If they are paid by the hour, their ability to secure their livelihood is compromised. The variability of total hours is also strongly associated with underemployment among hourly workers, that is, with wanting more hours of work that the employer does not provide (McCrate, Lambert, & Henly, 2015). This may also be related to gender, for example, if the women's traditional disadvantages in the labor market are reproduced here.

3. Discrimination. The third potential connection between schedule instability, precariousness, and gender is discrimination. Employers may discriminate against women of childrearing age (or other caregivers) if employers assume that these women will categorically put family first and will be unwilling to supply variable hours in the market. This is what economists call "statistical discrimination": employers may assume that most women with family responsibilities will have difficulty providing availability (where availability is a measure of labor supply that incorporates the range or variance of hours over time, as well as the specific placement of hours in the schedule). Many women may very well seek flexibility to tend to family needs, rather than accommodating employers' demands for flexibility to respond to fluctuations in demand. But some employers' categorical expectations that mothers as a group will perform relatively poorly in jobs with erratic hours may lead them to deny employment and promotion opportunities to all women of childrearing age, even those who can manage the schedules. Employers' expectations can also result in wage discrimination (paying unequal wages to equally productive workers) if employers expect the value of many women workers to be lower in jobs where employers require greater availability. This kind of discrimination is strongly related to family responsibilities discrimination (<http://worklifelaw.org/frd/>).

4. Other potential contributions to the gender pay gap. Fourth, unstable work schedules may increase the gender pay differential for reasons other than discrimination. First, men's instability tends to be associated with long hours of work that frequently exceed the statutory overtime threshold, and women's instability is more often associated with part-time work. Consequently, men are more likely to receive statutory or collectively bargained premia for overtime (Horrell & Rubery, 1991), which in turn increases their appetite for long and unpredictable hours.

One more reason that instability may result in lower pay for women, if Claudia Goldin's hypothesis about wage rates that are nonlinear with respect to hours applies here, is that workers who have unstable work schedules may receive compensating wage differentials. That is, she argues, that firms have incentives to reward workers who work particular hours with higher wages (Goldin, 2014). If Goldin is correct, then gender-specific willingness to accept unstable schedules contributes to the gender wage gap among hourly workers in countries where men are more likely to have unstable schedules, for example, in the United States and the United Kingdom (McCrate, 2015).

5. Interaction with social benefits. Unstable total hours also often destabilize a low-income worker's eligibility for social welfare benefits such as Temporary Assistance for Needy Families (TANF) that specifically target low-income parents, who are of course more often women (Ben-Ishai, 2015; Lambert & Henly, 2013). In addition, since eligibility for leave under the Family and Medical Leave Act (FMLA) requires a minimum number of hours of work and states determine eligibility for unemployment compensation with a minimum earnings standard, any tendency of unstable work schedules to result in fewer hours (McCrate, Lambert, & Henly, 2015) reduces the likelihood of workers qualifying for these programs as well.

6. Spillover effects. Since caregivers need to be available at specific times for dependents, mothers working unstable schedules may be more likely than others to seek help from family and friends when their schedules change on short notice. Trading shifts is another important way in which coworkers adjust to schedule instability. Schedule instability may then be disseminated among coworkers, friends, and family (Clawson & Gerstel, 2014). Since other women, especially women in the worker's own extended family, are usually the first recourse when a job undermines childcare plans, schedule instability may be propagated through gender-specific channels. In addition, these workers can also destabilize the schedules of workers in other workplaces, for example by shopping at different hours (McCrate, 2012). And since women are concentrated in personal service and retail trade, where output cannot be inventoried, instability may travel through gender-specific channels here as well.

MEASURING WORK SCHEDULE INSTABILITY AND ITS ASSOCIATION WITH GENDER

Schedule instability always involves two elements, lack of control and variability. Workers may not be able to control different aspects of their schedules, such as the timing, total hours, and predictability of their work. Typically these constitutive elements of instability are measured in different questionnaire items; I provide examples below to illustrate the measurement of the six potential sources of gender-specific precariousness associated with unstable schedules. The appendix provides more examples.

1. Precariousness of caregiving. Unstable schedules can destabilize household work when starting and stopping times vary and the worker does not control that variability. Two questions from the 2004 Work Schedules and Work at Home Supplement File of the US Current Population Survey (WSS) focus on lack of control over the timing of work:

To measure the variability of starting and stopping times: "At what time of day (do you/does name) begin work

[on (your/his/her) (main job/job) in (your/his/her) business/in the family business)] most days?” and “At what time of day (do you/does name) end work [on (your/his/her) (main job/job) in (your/his/her) business/in the family business)] most days?” The WSS provided no specific response category for varying times, but if someone volunteered that their starting or stopping time varied, this response was recorded, and he or she was counted in the second column of table 1.

To measure control over starting and stopping times: “(Do you/Does name) have flexible work hours that allow (you/him/her) to vary or make changes in the time (you/he/she) (begin/begins) and (end/ends) work?” If a respondent replied that he or she did not have flexible work hours that allowed him or her to vary starting and stopping times, he or she was counted in the second row of table 1.

The cross tabulation of responses to these two questions, as illustrated in table 1, provides estimates of four different schedule types: schedule instability and rigidity (that workers for the most part do not control), and schedule flexibility and stability (that workers do largely control; McCrate, 2012). Given adequate sample sizes, these categories can be further cross tabulated by gender. As examples, here are cross tabulations for the United States using data on the main job of civilian workers ages 18–65 who are not self-employed. Workers with unstable schedules are in the southeast quadrant.

TABLE 1: STARTING AND STOPPING TIME VARIABILITY BY WORKER CONTROL (US, MAY 2004)

	Starting and stopping times the same most days	Starting or stopping time varies
Flexible schedule that allows employees to vary starting and stopping times	All: 21.9% Men: 21.6% Women: 22.3%	All: 8.0% Men: 8.0% Women: 8.0%
Employees cannot vary starting and stopping times	<i>(Rigid schedules)</i> All: 58.6% Men: 57.9% Women: 59.5%	<i>(Unstable schedules)</i> All: 11.5% Men: 12.6%

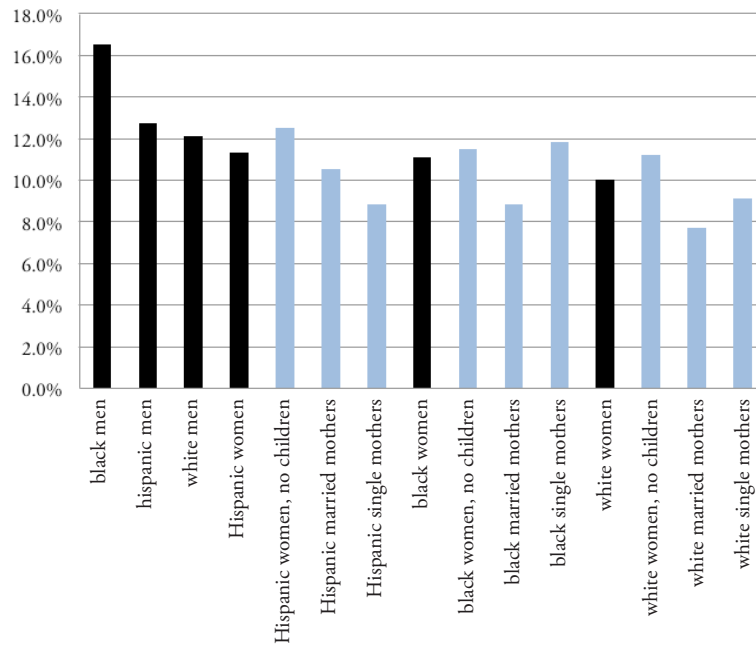
United States Current Population Survey Work Schedules and Work at Home Supplement File. n=49,816. Estimates are weighted. The four cells sum to 100% for each group. Chi-square for schedule type by gender significant at less than .001 level.

Source: McCrate (2012). ©International Association for Feminist Economics, 2012. <http://www.feministeconomics.org> Reprinted with permission by Taylor & Francis.

While these data from the 2004 WSS are old (and unfortunately, the most recent from this survey), they do comprise a large national sample for all age groups, and they illustrate the measurement of both schedule variability and control, and their relationship to gender.

There is a small but statistically significant gender difference here among respondents with unstable schedules, that is, those who said that they did not have flexible work hours that allowed them to change their starting and stopping times and who also volunteered that the starting and stopping times on their main paid jobs varied. Women were a little less likely than men to have unstable schedules (10.2 percent vs. 12.6 percent) and were a little more likely to have rigid schedules (59.5 percent vs. 57.9 percent). The overall gender difference in the probability of an unstable schedule is not large, but emerges more clearly when disaggregating by race/ethnicity, marital status, and the presence of children. Figure 1 illustrates this.

FIGURE 1. UNSTABLE STARTING AND STOPPING TIMES, BY GENDER, RACE/ETHNICITY, AND PRESENCE OF CHILDREN (US, 2004)



United States Current Population Survey Work Schedules and Work at Home Supplement File. Estimates are weighted.

Source: Adapted from McCrate (2012). ©International Association for Feminist Economics, 2012. <http://www.feministeconomics.org>. Reprinted with permission by Taylor & Francis. Sample sizes were quite small for Asian/Pacific Islanders, and for American Indians, but more information on these is in the source document.

The dark bars are the aggregate estimates of the probability of having an unstable schedule by gender, race (black, white), and ethnicity (Hispanic, non-Hispanic). Restricting attention to these dark bars for the moment, black men’s schedule instability, by this measure, far exceeds that of the other groups represented here. Moreover, the aggregate schedule instability of black, Hispanic, and white women is lower than that of any group of men, with white women the least likely to have this type of schedule.

In Clawson and Gerstel’s study of health care workers (2014), both professional and working-class men actually embraced variable hours, certainly when they provided more overtime with overtime premia, as was the case for the emergency medical technicians in their study, but even when the jobs were salaried, as was the case of the male physicians in the same study.² Largely unconditional availability for paid work has traditionally been part of the male breadwinner’s responsibility.

The gender story gets more complex when considering marriage and motherhood, as well as race/ethnicity. The light bars further disaggregate Hispanic, black, and white women’s schedule instability by marital status and the presence of children. White married mothers have the lowest frequency of unstable schedules of any group represented here. Childless white (also childless Hispanic) women are represented more than other white (Hispanic) women among those with unstable schedules. But black single mothers have a relatively high frequency of unstable schedules.

Thus, questions such as those in the WSS are quite useful in measuring the relationship between schedule instability, what one might call “time uncertainty,” and gender. They would be even more useful if the survey items were to query specifically for variable starting and stopping times, rather than rely on volunteered responses. Since the standard full-time work week has in fact become fragmented (Lambert, Fugiel, & Henly, 2014), survey instruments should provide an explicit option about variable work times and hours.³

Documentation of the specific negative ramifications of erratic schedules for work-life conflict, especially for children and families, is well underway (Henly & Lambert, 2015, 2014; Johnson et al., 2010; Organisation for Economic Co-operation and Development, 2004; Presser, 2003). In the United States, there is already a good supply of survey questions that provide information about schedule control and variability. Another briefing paper in this series (Lambert & Henly, 2014) discusses some of these, so I have included this material in the appendix. (The appendix also includes a discussion of the measurement of unpredictability.) However, most of these other surveys provide smaller samples that make it difficult to focus on relatively small but important demographic groups, such as blacks and immigrants.

It would also be important to continue documenting the specific consequences of unstable schedules for children and for other dependents such as elderly or disabled family members. For example, Rucker Johnson and colleagues (2010) measured the effect of unstable work schedules on children in low-income families, controlling for a variety of varying and fixed influences. They found that externalizing behaviors such as bullying increased significantly when mothers were exposed to unstable work schedules.

2. Instability of income streams. Another obvious question related to gender, schedule instability, and precarious work concerns the variability and adequacy of income streams associated with variable hours. Besides destabilizing income from week to week, the instability of total weekly hours is strongly associated with underemployment (at least among hourly workers in Canada), that is, with working fewer hours than one would like because the employer does not make additional hours available (McCrate, Lambert, & Henly, 2015). Here, the researcher’s goal is to measure lack of control over the variability in total weekly hours when workers are paid by the hour, especially over the ability to get more hours (as opposed to variability in starting and stopping times, although obviously they are related).

The connection to gender is not as well documented in this respect, compared to the case of fluctuating starting and stopping times. On the one hand, women’s disadvantages in the labor market may reappear here, with a greater female concentration in unstable hours. On the other hand, both men and women in the United States who are paid by the hour are likely to be concerned about getting a sufficient number of hours from week to week, since employed American wives contribute nearly the same amount of their own families’ earnings (47 percent in 2012) as their husbands (Smith & Schaefer, 2014). Single-parent families of course rely even more on women’s earnings. Female breadwinners are therefore usually just as strongly motivated as male breadwinners to stabilize income streams; the question is whether they are successful. The question needs to be asked, with detail on race and nativity.

The measurement of control over the variability of total hours is somewhat different than that of control over the variability of starting and stopping times. A reasonable proxy for a worker’s ability or inability to get more hours, when desired, is whether she or he is paid on an hourly basis. Employers who pay by the month or the year probably do not care a great deal about how many hours an employee works as long as the assigned work gets done and as long as the hours are reasonably competitive with the hours generally required at other firms, *ceteris paribus*. But the total wage bill is higher when hourly employees work more, giving firms much stronger incentives to carefully manage the number of hours worked, especially when there is the possibility of overtime premia. Employers’ incentives to restrict hours and limit workers’ flexibility are much stronger when workers are paid by the hour, rather than by salary or incentive pay. Employer practices that limit the ability of workers to work additional hours are therefore especially common in jobs paid by the hour (McCrate, Lambert, & Henly, 2015; Lambert, 2008).

Two pieces of information that are gathered regularly in the Current Population Survey (CPS) illustrate one way to measure instability in total hours. The first piece of information is collected by asking the question, “How many hours per week do you usually work at your main job?” Again, the survey provides no specific response for varying hours, but if someone volunteers that her or his total hours vary, this response is recorded and appears in the second column of table 2. The second kind of information collected by the CPS is detailed information on the periodicity of earnings, including whether or not a person is paid by the hour (for outgoing rotation groups only).

Using hourly pay status as an indicator of both the difficulty in getting more hours and the vulnerability of workers to precariousness associated with fluctuating hours, I constructed table 2 to illustrate how one might measure the relationship between schedule instability, income precariousness, and gender. The sample again consists of civilian employees ages 18–65. I used the May 2004 data in this table to be able to compare it to table 1. However, these variables are also available in other months of the CPS and in more recent years. Workers with hourly pay and unstable total hours are in the southeast quadrant.

TABLE 2. TOTAL HOURS VARIABILITY BY HOURLY PAY STATUS (US, MAY 2004)

	Total weekly hours usually the same	Total weekly hours vary
Not paid by the hour	All: 38.4% Men: 40.1% Women: 36.7%	All: 2.7% Men: 3.4% Women: 1.9%
Paid by the hour	All: 54.9% Men: 52.8% Women: 57.1%	<i>(Unstable total hours and incomes)</i> All: 4.0% Men: 3.7% Women: 4.3%

United States Current Population Survey, outgoing rotation groups only. n=14416.
Author’s calculations. Estimates are weighted.

Women are slightly more likely than men to work unstable total hours in jobs paid by the hour, but the gender difference is small. Although it is difficult to make inferences from responses that are volunteered, especially given the smaller sample size here compared to that shown in table 1, it may well be the case that contemporary American women, with their strong commitment to the labor force, have similar incentives as men to avoid the fluctuations in earnings associated with varying total hours. The relatively small sample size for the outgoing rotation groups makes it difficult to make further inferences by race, nativity, marital status, and the presence of children.

While the CPS is fielded every month and has a longitudinal component, the WSS has not been fielded since 2004. Should it be fielded again, its potential contribution to research on unstable work schedules and gender would be substantial, especially if the questions on starting and stopping times and on total hours queried explicitly for variability rather than relying on volunteered responses. The CPS and WSS data are national in scope, they include all ages except those below 15, and the sample sizes are reasonably large.

One example of how to query about total hours instability comes from Canada. In the late 1990s and early 2000s, Statistics Canada (1999–2005) fielded a survey with an abundance of detail on work schedules, including explicit information on total hours instability. In the Workplace and Employee Survey (WES), a

researcher can easily identify workers who are paid by the hour. In addition, the survey provides questions concerning the variability in total hours. First, it asked all respondents, “Do you normally work the same number of paid hours per week at this job excluding all overtime?” For those who did not, it further inquired, “Not counting overtime, how many paid hours on average do you work per week at this job?”; “Over the past 12 months/since you started this job, not counting overtime, what was the maximum number of paid hours you worked per week at this job?”; and “Over the past 12 months/since you started this job, not counting overtime, what was the minimum number of paid hours you worked per week at this job? (Exclude the hours when you were on paid vacation or paid sick leave.)” The survey also provides several questions on the variability of paid and unpaid overtime. Researchers can calculate both the range of total hours and the range relative to average weekly hours. Because women’s schedule instability is more likely to be associated with part-time work, women are likely to have a greater range of hours relative to the average.

Similarly, the National Longitudinal Survey of Youth, 1997 cohort (NLSY97) included two similar questions about variability in total hours in 2011 (round 15):

“In the last month, what is the greatest number of hours you’ve worked in a week at this job? Please consider all hours, including any extra hours, overtime, work you did at home, and so forth.”

“In the last month, what is the fewest number of hours you’ve worked in a week at this job? Please do not include weeks in which you missed work because of illness or vacation.”

Finally, a researcher could also change the question from one of control over the number of hours to one about workers’ actual success in getting the number of hours they want. The University of Chicago Work Scheduling Study simply asked hourly workers to agree or disagree with this statement: “Most weeks, you can count on getting the number of hours you want.”

3. Discrimination. To what extent do mothers opt out of unstable work schedules and to what extent do employers discriminate against mothers or potential mothers? If employers categorically offer lower wages or deny employment opportunities to workers with family responsibilities, even when their productivity is the same as a comparable non-caregiver, then that is statistical discrimination and family responsibilities discrimination. The measurement of discrimination is a notoriously tricky business under any circumstances. Since the Civil Rights Act of 1964, employers have not been able to advertise overtly when they prefer workers of a certain race or sex, so workers may be completely unaware of discrimination against them. At the same time, workers and researchers may incorrectly infer discrimination from differences in wages or career trajectories that are related to differences in productivity.

Nonetheless, it would be useful to know how many people feel they have been denied a job or a promotion across schedule types on account of their gender and actual or potential family obligations.⁴ If a survey gathers information on gender and schedule instability on the current job, it could also inquire, “Have you ever been denied a raise, a promotion, or another opportunity with your current employer?” or “Have you ever been denied a raise, a promotion, or another opportunity with your current employer because of family responsibilities?”

But the extent of statistical discrimination against women or caregivers in the case of unstable work schedules would most likely be best assessed in an experimental framework. For discussions of experimental measurements of discrimination, see the work of David Neumark (2016) and Marianne Bertrand and Esther Duflo (2016).

4. Other potential contributions to the gender pay gap. If, as Claudia Goldin argues, firms have incentives to reward workers who work long hours, and who work particular hours, with higher wages (Goldin, 2014),

then gender-specific willingness to accept unstable and/or long-hour schedules contributes to the gender wage gap in the United States. Goldin's own work only concerns American professionals, whose schedules can be highly variable but whose jobs and salaries are relatively secure. Using a sample from the WES of Canadian workers who were paid by the hour in 2003, McCrate, Lambert, and Henly (2015) found no evidence of higher wages for workers on unstable schedules. This is clearly a matter for further research.

If markets do not reward hourly employees for their willingness to work unstable schedules, labor law is another way to ensure compensation. In the United States, the Fair Labor Standards Act mandates overtime premia, which indirectly reward those covered by the Act who work unstable schedules when they are also working overtime schedules. (Collectively bargained premia for unstable hours would of course play a similar role.) Overtime is associated with extremely unpredictable hours (McCrate, 2015), and men are more likely to work overtime than women and therefore are more likely to earn the overtime wage. WES makes it possible to estimate the extent of unpredictability among workers on overtime (as well as nonstandard) schedules. (See appendix.)

In contrast, American labor law rarely compensates part-time workers for erratic hours. Show-up pay or reporting pay is required by law in many Canadian provinces and in some American states; it also appears in some union contracts. Show-up pay compensates hourly workers whose employer requires them to show up for work and then sends them home before the end of the scheduled shift (sometimes without getting any hours at all). However, various factors compromise these laws' effectiveness (Alexander & Haley-Lock, 2015). Because women are more likely than men to work unstable schedules while employed part-time and men are more likely to be entitled to overtime pay when they work unstable hours, women do not enjoy the same compensation that men do for this instability.

To understand the relationship between gender, unstable schedules, and differences in compensation for overtime, it would be useful to examine the incidence of unstable and possibly unpredictable work schedules by average work hours (part-time, standard full-time, and overtime) and by the presence of a collective bargaining agreement in order to see which workers (by gender and by hours worked) receive statutory or collectively bargained overtime premia. (This of course depends on the laws of the political unit in question, and the provisions of the collective bargaining agreement.⁵ The United States requires overtime premia for certain workers through national legislation; Canada requires overtime premia in many cases, but the regulations are for the most part at the provincial level; and Great Britain has no statutory overtime premia, relying instead on negotiated labor contracts.)

5. Interactions with social benefits. Income from any safety net program that requires a minimum number of hours of work or that disqualifies a recipient when his or her income exceeds a threshold, and at the same time requires frequent recertification of eligibility, becomes insecure when an hourly worker's total hours are variable. Liz Ben-Ishai (2015) provides an overview of several core safety net programs that (in all or in many states) impose requirements that jeopardize the eligibility of workers on unstable schedules: TANF, the Supplemental Nutrition Assistance Program (SNAP), Medicaid, and childcare assistance under the Child Care Development Fund.

In addition, the FMLA requires a worker to have at least 1,250 hours of service for the employer during the 12 months immediately preceding the leave in order to be eligible for job-protected unpaid family leave (United States Department of Labor, 2015). Eligibility for unemployment insurance is determined in part by a minimum earnings standard, which varies across states. Both a minimum hours standard and a minimum earnings standard exclude more low-wage and short-hours workers than high-wage and long-hours workers. To the extent that unstable work schedules are associated with fewer hours, and to the extent that women's instability is associated with part-time work, women are more likely to be ineligible for basic social benefits.

The large ongoing longitudinal datasets in the United States (NLSY79, NLSY97, Survey of Income and Program Participation [SIPP], etc.) of course include a great deal of information on program participation. In some years, some of these surveys also inquire about variable total hours with questions similar to those in the CPS (discussed earlier).⁶ It should be possible to estimate the correlation of program participation with unstable total hours in those years, although inferring causation would be difficult because of all the other reasons that people enter and leave programs, and because of endogeneity.

6. Spillover effects. Caregivers must be available at specific times for dependents, often at short notice, and so mothers who end up with unstable schedules may be more likely to seek help from others when their work schedules change, also often on short notice. Managers may be more or less responsive to workers' requests for schedule adjustments (Henly, Shaefer, & Waxman, 2006). Trading shifts is another important way in which employees respond to family needs when they work erratic schedules, and it gives workers more control over their schedules (Clawson & Gerstel, 2014). When workers trade shifts or when they seek the help of friends or family members, the contingency and unpredictability that originated with changes in demand on their job in turn can generate contingency and unpredictability for their coworkers, friends, and family members. Or, in the case of coworkers, it can provide an effective but informal way for workers to get more desirable schedules (Clawson & Gerstel, 2014). But many professional service providers safeguard their own financial stability by requiring payment when appointments are canceled at the last minute, or in the case of daycare, by requiring payment regardless of whether children are present on any particular day, effectively insulating themselves from the externalized effects of unstable work schedules.

Survey instruments can attempt to measure the frequency with which workers on unstable schedules seek help, and whom they seek it from (men or women; managers, coworkers, friends, or family). The University of Chicago Work Scheduling Study included several relevant questions:

- I can depend on my manager to help me with scheduling conflicts if I need it.
- My manager lets me adjust the time I start and end work to accommodate my family or personal needs.
- I can depend on my co-workers to help me with scheduling conflicts.

Other questions are plausible: "In the last month, have you sought help from anyone for family needs when your schedule changed?" If yes, "What is the relationship of that person to you?" and, if not apparent, "What is that person's gender?"

CONCLUDING COMMENTS

Gender doubtless interacts with unstable work schedules and precarious employment in other ways that I have not discussed. In addition, one can imagine that erratic work schedules affect men and women differently in different institutional contexts, for example, with respect to taxes (especially the tax treatment of secondary earners in the household), underemployment, and many other matters. The Employment Instability Network hopes to stimulate discussion and measurement of all these phenomena.

APPENDIX: MEASUREMENT OF SCHEDULE CONTROL, VARIABILITY, AND PREDICTABILITY

Schedule Control:

The Canadian Workplace and Employee Survey (WES) provides a dichotomous question to measure worker control over timing: “Do you work flexible hours? (This means you may work a certain number of core hours, but *you can vary your start and stop times* as long as you work the equivalent of a full work week)” (emphasis mine). This is similar to the question on flexible starting and stopping times in the Work at Home Supplement File of the US Current Population Survey (WSS), which is discussed in the main body of this paper.

Questions on control of timing may be more nuanced with more response categories to choose from, as in the General Social Survey (GSS), the University of Chicago Work Scheduling Study, and the 1997 cohort of the National Longitudinal Survey of Youth (NLSY97). In 1998 and 2006, the GSS used this question: “Which of the following statements best describes how your working hours are decided? (By working hours we mean here the times you start and finish work, and not the total hours you work per week or month.)” Respondents were given these choices: “Starting and finishing times are decided by my employer and I cannot change them on my own,” “I can decide the time I start and finish work, within limits,” and “I am entirely free to decide when I start and finish work.”

The 2011 wave of the NLSY97 (round 15) used a similar question but added two additional categories. One reflects a common pattern of give and take between employers and employees: “Starting and finishing times are decided by my employer but with my input.” The other additional category reflects a schedule under the control of forces outside the employment relationship: “When you start and finish work depends on things outside your control and outside of your employer’s control” (see Lambert, Fugiel, & Henly, 2014 for a summary of these items).

The 2010 European Working Conditions Survey (EWCS) also provides a measure of control over working time, but this one may be broad enough to include control over total hours and/or control over starting and stopping times: “How are your working time arrangements set?” The possible answers were: “They are set by the company/organisation with no possibility for changes,” “You can choose between several fixed working schedules determined by the company/organization,” “You can adapt your working hours within certain limits,” and “Your working hours are entirely determined by yourself.”

Schedule Variability:

There is also a good variety of questions on variability of work times in available survey instruments, measuring both starting and stopping times, and/or total weekly hours. Variability in total hours seems to be ubiquitous throughout the weekly hours distribution among young workers in the United States, except for those working close to a 40-hour week (Lambert, Fugiel, & Henly, 2014). Here are survey questions that gauge variability in hours.

The University of Chicago Work Scheduling Study (Lambert & Henly, 2015) included two versions of a question about usual hours, one of which explicitly provided variable hours as a response option. Respondents to an employee survey were randomly assigned to either:

During a typical work week, about how many hours do you USUALLY work at [employer’s name] or do your hours vary too much to say?

During a typical work week, about how many hours do you USUALLY work at [employer’s name]?

Only 2 percent of respondents randomly assigned to the question “How many hours do you typically work

each week?” volunteered that their hours vary, whereas 25 percent of employees randomly assigned to a question that continued with “...or do your hours vary too much to say?” said their hours vary too much to estimate usual hours (see Lambert & Henly, 2014).

The University of Chicago Work Scheduling Study also asked respondents to agree or disagree with these statements on variable starting and stopping times:

1. You are generally scheduled to work the same days a week.
2. You are generally scheduled to work the same shifts each week—mornings, afternoons, or evenings.

The 2010 EWCS asked several questions (with dichotomous responses) about the variability of working time, some of which pertain to starting and stopping times, and others of which pertain to total hours:

- Do you work the same number of hours every day?
- Do you work the same number of days every week?
- Do you work the same number of hours every week?
- Do you work fixed starting and finishing times?

Similarly, the University of Chicago Work Scheduling Study inquired, “In the last month, what is the greatest number of hours you've worked in a week at this job? Please consider all hours, including any extra hours, overtime, work you did at home, and so forth” and “In the last month, what is the fewest number of hours you've worked in a week at this job? Please do not include weeks in which you missed work because of illness or vacation.” (This survey also fielded the same question with a reference period of 3 months.)

Unpredictability:

Unpredictability is a hallmark of many jobs with variable hours. A number of surveys have attempted to gauge unpredictability. The relevant questions follow.

The Work, Family, and Community Nexus Survey (WFCN), is a large, nationally representative survey of 2,500 American adults aged 18–69, conducted in 2005–06. The WFCN survey asked, “In your current job, how often are you REQUIRED to work extra or overtime hours with little or no advance notice?” (If the respondent needed a definition of required, the interviewer offered, “Does your supervisor ASSUME that you will be available to work extra hours without asking you first?” or, “Are you made to feel that if you don't work extra hours when asked, you could lose your job or hurt your chances for job advancement?”; see discussion of the WFCN in Golden, 2014.)

Several surveys inquire about the length of advance notice. Possible responses varied across surveys. The Canadian WES asked respondents who usually worked paid or unpaid (that is, salaried) overtime, “How far in advance do you usually know your overtime schedule?” It also asked people who worked in nonstandard jobs (evening or night hours, weekend hours, part-time), “How far in advance do you know your weekly hours of work?”

The NLSY97 inquired, “How far in advance do you usually know what days and hours you will need to work?”

The University of Chicago Work Scheduling Study also asked respondents about advance notice: “Would you say you generally know your schedule 0–3 days, 4–7 days, 8–14 days, 15–21 days, or more than 3 weeks in advance?” In addition, it asked respondents to strongly agree/agree/disagree/strongly disagree with several additional statements about predictability:

- You can easily anticipate what days and times you’ll be working week to week.
- Last-minute adjustments are often made to your work schedule during the work week.
- Most weeks, you work the days and shifts you were scheduled to work.

The EWCS solicited information on variability and advance notice. For the subset of respondents whose hours were set by the employer with no possibility for changes, or who chose between several fixed working schedules determined by the employer, this survey inquired: “Do changes to your work schedule occur regularly? (IF YES) How long before are you informed about these changes?”

Being on call is an intermediate status between predictability and unpredictability. Workers do not have to be present at the workplace, but they must remain available, their use of this time is circumscribed, and they are often unpaid while on call. The Current Population Survey Contingent Work Supplement File included responses to the question: “Were you an ON-CALL worker last week?” For hourly workers, this could be supplemented with follow-up questions: “If so, did you actually have to report to work?” and “Did you receive any compensation while you were on call, other than the time you actually worked?” The 2014 round of the NLSY79 solicited information about temporary, on-call, and contract workers, including these questions: “Some people are called on-call workers. They are called to work only when they are needed, although they can be scheduled to work for several days or weeks in a row. Some examples of on-call workers are substitute teachers and construction workers. On this job, [are/were] you an on-call worker?” and “Some on-call workers, such as doctors, nurses and some managers, have to work regularly scheduled hours, but in addition must work other hours when called. Other on-call workers, such as substitute teachers, work only when they are called. Which type of on-call worker [are/were] you?”

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¹ The survey allowed proxy responses.

² Overtime does not necessarily imply economic security. If a worker receives a low or moderate wage and is the primary earner for the family, overtime may be all that keeps the family at a middle-class standard of living; since it is usually variable, the household's claim on a livable income can be tenuous over time.

³ The questions that were used in 2004 were developed in an earlier period that was characterized by many more full-time jobs with stable schedules (exclusive of overtime) and were designed intentionally to smooth variations in hours to capture the average or typical work week.

⁴ The NLSY79 asked such a question in 1979 and 1982: "Have any of the following things ever caused you any problems in getting a good job?" and then got yes/no answers for various categories including age, race, religion, nationality, and sex. "Family responsibilities" could be added to the categories.

⁵ By examining a sample of collective bargaining agreements, Crocker and Clawson (2012) found that represented nurses (mostly women) were more concerned about limiting overtime

⁶ For instance, see the SIPP questionnaire <http://www.census.gov/content/dam/Census/programs-surveys/sipp/questionnaires/2008/SIPP%202008%20Panel%20Wave%2016%20-%20Core%20Questionnaire.pdf>.