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# Unstable and on-call work schedules in the United States and Canada

Elaine McCrate

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and Working Conditions Branch

***Unstable and On-Call Work Schedules in the United  
States and Canada***

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## Abstract

Unstable work schedules are schedules in which the times of work vary and workers have little or no control over that variability, either as individuals or through collective agreements. These schedules are also often called “just-in-time” schedules. Their main attraction for employers is flexibility: the ability to respond to changes in demand and other contingencies, measured in small intervals of time. However, such scheduling practices often impose significant costs on workers, including the difficulty of planning and coordinating non-market times with others when the specific times of work vary, and the instability of income when total hours vary and workers are paid by the hour.

This paper investigates unstable work schedules in the United States and Canada: their extent, their incidence across different demographic groups, and their costs and benefits for employers and workers. It provides case studies in retail trade and in health care, including the varied role of unions in regulating work schedules. It reports on fair scheduling ordinances in effect in a few cities in the U.S., and considers other options for regulating the timing of work.

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## **Acknowledgement**

I would like to thank Karen Messing, Stéphanie Bernstein, and Pearl Sawyer for their help with the material on Canada, and Julia Henly and Susan Lambert for their help with the material on the United States. All of them have deep experience and vast founts of knowledge about work schedules. All errors are my responsibility.

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# 1. Definitions

Unstable work schedules are schedules in which the times of work vary and workers have little or no control over that variability, either as individuals or through collective agreements. These schedules are also often called “just-in-time” schedules. Their main attraction for employers is flexibility: the ability to respond to changes in demand and other contingencies, measured in small intervals of time. However, such scheduling practices often impose significant costs on workers, including the difficulty of planning and coordinating non-market times with others when the specific times of work vary, and the instability of income when total hours vary and workers are paid by the hour.

There is no legally defined category of zero hours contracts in the United States; thus, American laws do not specifically prohibit zero hours of work in any particular interval of time.

On-call work is one type of unstable schedule, among many others. In the United States, on-call work refers to a situation in which the worker is not assigned any specific hours of work in advance, but rather is assigned specific times during which s/he must be accessible by phone in case s/he is needed on short notice. This is common, for instance, among substitute school teachers.<sup>1</sup>

Both variability and lack of control matter. In the two-by-two matrix of Figure 1, where the parameters are working time variability and working time control, unstable schedules are located in the southeast quadrant of Figure 1.

**Figure 1. Definition**

		SCHEDULE VARIABILITY	
		starting and stopping times the same most days	starting and stopping times vary
SCHEDULE CONTROL	worker can vary times of work	A	B
	worker cannot vary times of work	C: rigid work schedules	D: unstable work schedules

Source: McCrate, 2012.

If an employee can decide to take a few hours off on one day, then make up the work on another day (cell A or B), this variability is a prized job perk. But if management tells a worker to report for work at times not of the worker’s choosing, and the times often change (cell D), this is likely to create a multitude of problems for workers, especially in the institutional contexts of the United States and Canada.

There are numerous forms of instability in scheduling. When the times of work vary, workers may additionally receive very short advance notice of their work schedules, such as one week or less before they are expected to report to work. They may also work a variable total number of hours per week. These practices are of course highly correlated. All these kinds of instability may involve yet other variations. For example, they might involve early send-homes from work as well as last minute call-ins. They might involve on-call work, as described above. Schedule instability also may include day labor and very casual work that resembles the informal labor

<sup>1</sup> As an illustration of how “on call” is interpreted in the U.S., it is useful to note that two recent municipal scheduling ordinances in the U.S. make distinct provisions about on-call work vs changes to posted schedules. See Section 10.



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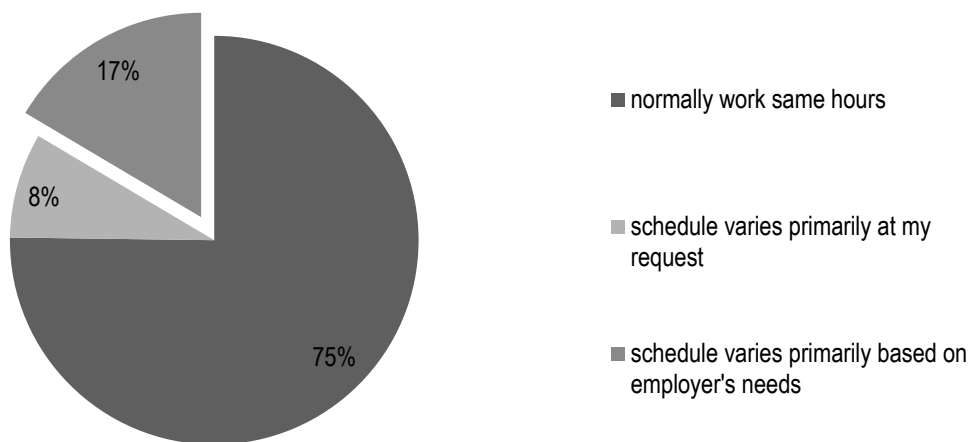
markets of developing countries.<sup>2</sup> I will refer to most of these forms of unstable scheduling, but they have somewhat different consequences, which often depend in part on the particular workers most likely to be involved. I will say nothing specifically about day labor and casual work. These are poorly documented in the U.S. and often overlap with very marginal self-employment.

## 2. Types and Measurement of Work Schedule Instability

The Federal Reserve’s Survey of Household Economics and Decision-Making (2016) is the largest recent source of data on work schedule instability for a broad range of ages in the United States. One survey question asked, “Thinking about your main job, do you normally start and end work around the same time each day that you work or does it vary from week-to-week?”, and provided options where the schedule varied mostly from the employer’s or the worker’s side. Figure 2 displays the result for American workers and contractors aged 18-65. Approximately one out of six works a schedule that varies primarily according to employer needs.<sup>3</sup>

Among those who worked variable schedules primarily at their employer’s behest, work schedules were highly unpredictable (Figure 3). Nearly two-thirds received advance notice of their work schedules less than one week in advance.<sup>4</sup>

**Figure 2. Schedule Variability and Control**  
(Survey of Household Economics and Decision-Making 2016, employees or contractors ages 18-65)



Source: author’s calculations.

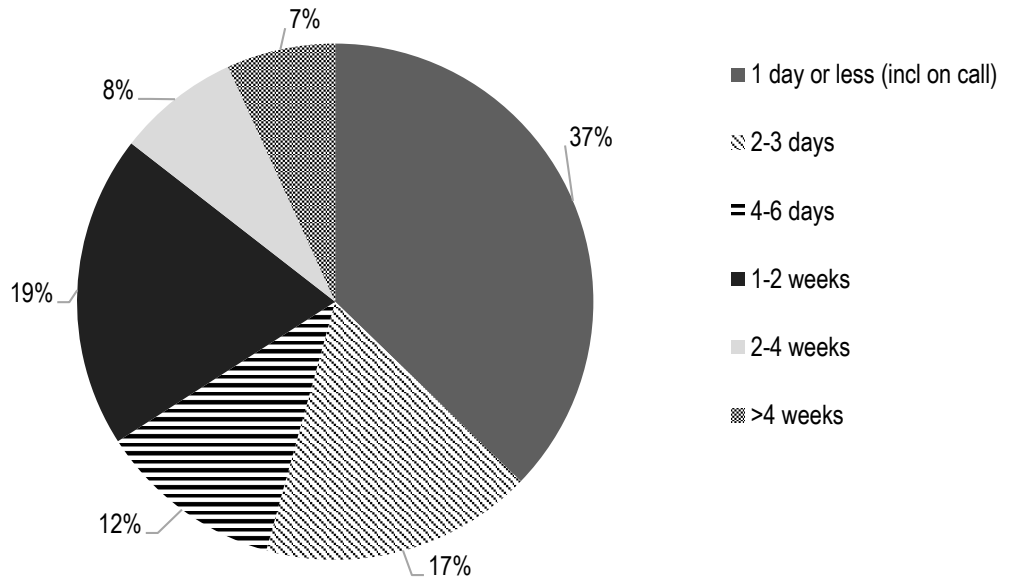
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<sup>2</sup> One example is men (often immigrants) who assemble on specific street corners in the morning hoping to be selected for day jobs by motorists who approach them. These day jobs include small home repairs, yard maintenance, etc.

<sup>3</sup> This survey, unlike most others, offered a category on employment status specifically referring to consultants and contractors. There is currently a lot of concern in the U.S. about employees who are misclassified as independent contractors, so I included consultants and contractors in these tabulations. They comprised about 2.5% of the sample I used. My estimates are virtually identical to those reported in Board of Governors of the Federal Reserve System (2017), except that I exclude employees over the ages of 65.

<sup>4</sup> The recently released Working Conditions in the United States: Results of the 2015 American Working Conditions Survey (Maestas et al, 2017) also reports unpredictable work for a significant minority of workers (10.2% for women and 9.2% for men), but for a somewhat different population (e.g., a slightly older group than that considered in this report, not screening out the military or self-employed members of the sample). This report also did not assess the extent to which frequent and unpredictable changes to the work schedule were made by the respondent or by the respondent’s employer.

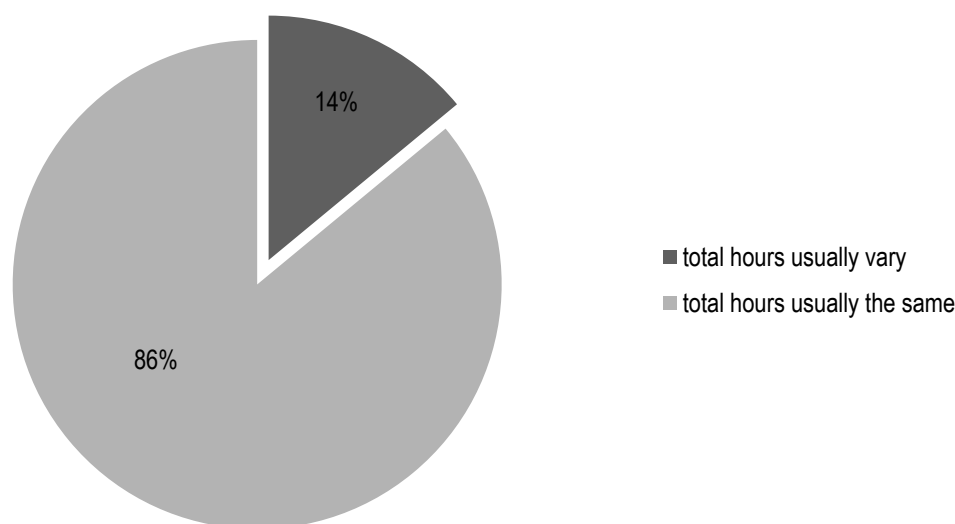
**Figure 3. Advance Notice**  
 (employees or contractors ages 18-65 with unstable schedules, 2016 Survey of Household Economics and Decision-Making)



Source: author's calculations.

American data sources are not so helpful on instability in the total number of hours per week for hourly employees. However, the Canadian Workplace and Employee Survey provided excellent measures of this, albeit old since the series was discontinued in 2005. Respondents were specifically queried if they were paid by the hour, and if they did not usually work the same number of hours each week, hence experiencing volatility in their earnings. McCrate, Lambert and Henly (2017) also used hourly vs. salaried pay as a proxy for control of working time. They found that 14% of workers who were paid by the hour in 2003 said they did not usually work the same number of hours each week excluding overtime. (Figure 4) For this 14% of workers, the median difference between their reported minimum and maximum hours relative to average hours (in the past year) was .875.

**Figure 4. Instability in Total Weekly Hours**  
(Canadian employees ages 18-65 paid by the hours in 2003)



Source: McCrate, Lambert and Henly, 2017.

For a sample of Canadian hourly nonstandard workers<sup>5</sup> in 2003, McCrate, Lambert and Henly also estimated that 23.3% did not usually work the same number of hours each week, and for this subset, the median range relative to the average was 1.0. Moreover, 31.1% of the nonstandard sample learned of their work schedule one week or less in advance, and 41.7% worked different starting or stopping times. Finally, in Canada as in the U.S., overtime is particularly unpredictable: 58% of hourly workers who usually worked overtime learned of their overtime schedules one day or less in advance. (Using the Working in America dataset, Golden (2014) calculated that 53 percent of American union workers and 56 percent of American nonunion workers said their required overtime work was usually scheduled at the last minute and hard to plan for).

Other than the Federal Reserve's survey, the raw data on work schedules for the United States and Canada typically have one or more of several shortcomings: they are old measures, they are defined or collected in such a way that they do not illuminate much of what we would like to know about unstable schedules, the samples are small, and/or the samples are selective. In the U.S., the 1997 National Longitudinal Survey of Youth, starting with the 2011 wave (**NLSY97**), includes relevant data that are reasonably current for a reasonably large sample, but only cover young workers. In the monthly Current Population Survey (**CPS**), there are large repeated cross-sections covering a broad age range over a long period of time, but the measures of work schedule instability are limited, providing only volunteered information on the variability of total hours. The General Social Survey (**GSS**), also a long series of repeated cross-sections, mostly has relatively poor indicators of unstable schedules, although there is an informative new variable that queries specifically about the unpredictability of work schedules in 2014. The sample size in the GSS is also very small. Other cross-sections are old, albeit with some good measures, larger sample sizes than the GSS, and more broadly representative samples than the NLSY97. These are the Current Population Survey Work Schedule Supplements (**CPS-WSS**), not fielded since 2004. However, these datasets also rely upon volunteered information about working time variability. The Contingent Worker Survey (**CWS**) is another relevant dataset, but

<sup>5</sup> Nonstandard workers were those who did not work each day Monday through Friday, did not work at least six hours per day, or did not usually work between 6 a.m. and 6 p.m.

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it only queries about on-call work.<sup>6</sup> As a supplement to the Federal Reserve data reported above, I present estimates from some of these other datasets in sections 4 and 5.

Canada maintained an excellent dataset, the Workplace and Employee Survey, with information on unstable times of work, unstable total weekly hours, and unpredictability from 1997-2005, but it was discontinued. As in the U.S., much of the more recent information about unstable work schedules in Canada comes from case studies.

When I report my own calculations of the incidence of work schedule instability, I use a standard set of civilian workers ages 18-65 who are not self-employed, that I call the “target population”. These are all prime-age employees, with much more similar time-related opportunities and constraints in the workforce than if I had included the self-employed and the military. Also, most workers in this age group must work to support themselves and possibly other family members, at least to some extent.

I further provide some estimates for the subset of the target population that is paid by the hour. The type of remuneration – hourly vs salary or something else – is a useful proxy for control over the number of hours of work since hourly workers do not usually have much opportunity to work additional hours if they want. Some kinds of work schedule instability, when it is not controlled by the workers themselves, have some effects that are similar for everyone – for example, the inability to plan one’s nonmarket time. But some kinds of work schedule instability matter most for hourly workers – especially, the risk of an unstable income from month to month. So I often provide estimates both for the larger target population, and for the subset that is paid by the hour. The estimates are all weighted with the appropriate sampling weights provided in the datasets. But before proceeding with further estimates, I consider the reasons for undertaking this investigation.

### **3. Consequences of Instability**

#### **3.1 Costs and benefits for workers**

##### **Costs**

First, frequent changes in starting and stopping times that workers do not control, especially changes imposed with little advance notice, result in much greater difficulty planning and coordinating nonmarket time with others, including family, friends and service providers. The consequences of any deviation from the expected for workers are amplified today by wives’ greater presence in the labor force and by single parenthood, so that there is often no spouse available to manage family affairs when a parent is unexpectedly called away. This is a very big problem for parents (especially mothers), because the demand for high-quality affordable childcare in the U.S., especially for workers on nonstandard or unstable schedules, greatly exceeds the supply. (McCrate, 2012 and 2017) These schedules, especially in a context of relatively high maternal labor force participation and insufficient high-quality full-time affordable childcare, can disrupt family routines, and make it difficult for parents to fulfill responsibilities toward their children. Family relationships become strained and children’s well-being is compromised. (Heymann 2000; Presser 2003; Henly, Shaefer and Waxman 2006; Henly and Lambert 2014). For example, Han (2005) examined a broad range of mothers’ nonstandard schedules, including variable schedules, and found that they retarded children’s cognitive development. Johnson and colleagues (2010) Johnson, Kalil, Dunifon and Ray (2010)

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<sup>6</sup> The federal Schedules That Work Act, if passed by Congress and signed by the president, would instruct the Department of Labor to include questions on the degree of variability in work schedules, and to conduct regularly the CPS-WSS and CWS.

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measured the effect of unstable work schedules on children in low-income single mother families, controlling for a variety of other characteristics. They found that children's externalizing behaviors such as bullying increased significantly when mothers were required to work unstable work schedules. Similarly, using both quantitative and ethnographic evidence, Hsueh (2006) examined the work schedules of low-income mothers in two low-income neighborhoods in Milwaukee, Wisconsin,<sup>7</sup> finding that the children of mothers on variable nonstandard schedules were more likely to be reported by teachers as having problems in school engagement and performance, as well as externalizing behavior problems. Hsueh explains this result through the association of hours variability not controlled by workers with nonstandard hours, that is, with schedules that were predominantly outside the Monday-through Friday 8 a.m. to 4 p.m. window.

Second, like other types of nonstandard employment, unstable work hours can also jeopardize worker health. Being exposed to irregular work schedules is associated with various health problems: digestive problems, sleep disorders, mental health symptoms, reproductive system problems and cardiovascular complaints. If the unstable hours extend into evenings or night time, there is greater risk of sleep disruption and fatigue, and therefore greater risk of injury on the job. Because the parent's health is compromised, these conditions can also affect workers' children (Messing et al 2014).

Third, if paid by the hour, workers with varying total hours have unstable earnings. In a national survey by the American Federal Reserve in 2013, 10 percent of respondents said that their income varied quite a bit from month to month. For people who are paid every two weeks, this can be due to something as innocent as a fifth Friday, hence a third payday, in a month. But among those whose income varied (in a sample that included salaried workers), 42 percent attributed it to an irregular work schedule (Board of Governors of the Federal Reserve System 2014: 8).

The J.P. Morgan Chase and Company Institute analyzed a sample of one million J.P. Morgan Chase customers who were observed to receive any labor income between 2012 and 2015.<sup>8</sup> Researchers at the institute found that 55% of this sample on average experienced more than a 30 percent month-to-month change in total income. Earnings accounted for 53% of the sum of the absolute values of percent changes in income. Most earnings volatility across individuals (86%) was within rather than between jobs. Some of this is due to the fifth Friday effect, but among the individuals with volatile earnings, 72% experienced variations in the size of their paycheck due to hours, bonuses, and so forth.<sup>9</sup> Monthly income volatility was especially pronounced among the young, the poor, and those living in the western United States (J.P. Morgan Chase and Company Institute, 2016).

Fourth, a large proportion of American and Canadian hourly workers on unstable schedules also say that they need more hours. (Luce et al 2012; Vigdor et al 2016) The U.S. Federal Reserve's Survey of Household Economics and Decisionmaking (SHED) illustrated that underemployment is particularly high in retail trade, and accommodation and food services, where unstable part-time scheduling is common. (Golden, 2016) Golden and Gebreselassie

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<sup>7</sup> These families were part of the New Hope research-demonstration project, who received certain kinds of work assistance for three years starting in 1994, then were followed both during the intervention and for several years afterward. The results discussed here pertain specifically to analysis of the 24-month follow-up interview.

<sup>8</sup> The authors acknowledged that these data are not informative about cash and informal transactions which are more common among low-income individuals.

<sup>9</sup> The other 28% had variability in the frequency of pay per month, often due to the occasional fifth Friday. Some people, especially those with the most volatile incomes (young, poor, or residing in the west), offset income volatility by participation in the online gig economy. Using a sample of 260,000 depositors who ever participated in the online platform economy over the course of the study, the 4% of individuals who ever got labor platform income (that is, earnings by performing discrete, specific labor assignments via an on-line intermediary such as Uber or Task Rabbit) were able offset an average 14% dip in non-platform income (from all causes – both between and within job), by earning an additional average 15% in labor platform income.

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(2007) also reported that one third of part-time workers in the U.S. want more hours of work. Canadian data for 2003 also indicated that individual hourly workers with variable total hours were at greater risk of underemployment generated on the demand side, that is, they are more likely to say that they want to work more hours but that their employer does not provide the hours. McCrate, Lambert, Henly, 2017 offered evidence of a causal link between unstable total weekly hours and underemployment. In the words of United Food and Commercial Workers Local 1000A in Ontario, “It is no wonder that retail employers increasingly choose to hire many part-time employees, a significant number of which receive fewer hours than they would prefer. This often gives them a large pool of individuals willing to work any time at a moment’s notice, as this is the only way to receive hours. It can also create a competitive atmosphere that allows an employer to use shifts as rewards” (United Food & Commercial Workers Canada – Local 1000A, 2015: p. 6).

Fifth, unstable work schedules actually jeopardize low-wage workers’ eligibility for other safety net programs that require minimum hours of work and/or sufficiently low incomes, and for which workers are required to recertify their eligibility frequently. These include Temporary Assistance to Needy Families (TANF: a program for poor families with children), the Supplemental Nutrition Assistance Program (SNAP: at least for “able-bodied adults without dependents”), and childcare assistance under the Child Care Development Fund (CCDF). All of these programs were designed assuming that hours of work and earnings would be steady within a given job, and that hours of work are completely driven by supply-side choices (Ben-Ishai, 2015).

However, when hours vary due to demand-side considerations, the determination of eligibility and the benefit levels becomes very problematic. When a low-wage worker is paid by the hour, and scheduled for fewer hours, their earnings and public benefits may decrease simultaneously as a result of eligibility calculations made in the previous period when the worker had more hours. The reverse is also possible, but the effect of a temporary increase in hours is more complicated than the effect of a temporary decrease. On the one hand, if a worker becomes eligible for more assistance in a subsequent period as a result of a temporary reduction in hours now, then gets public benefits when their hours unexpectedly increase in that subsequent period, their income temporarily increases from two sources. On the other hand, if their hours increase too much, they may lose eligibility for means-tested benefits because of the “benefits cliff”. (If they do not report the increased earnings, they can be denied benefits altogether or even charged with fraud.) Reapplying for benefits later on when hours fall again is time-consuming and cumbersome, so that many eligible workers simply give up and do not get benefits for which in principle they are at least sometimes eligible. Finally, if a worker “voluntarily” quits a job that causes family or health problems, they are usually disqualified from benefits under some programs such as TANF and SNAP. (Ben-Ishai, 2015) The specific design of programs such as TANF, SNAP, and CCDF varies across states, but the broad parameters that determine interaction of eligibility, benefits, and unstable work hours are largely similar across jurisdictions.

Sixth, empirical work so far indicates that workers with unstable schedules are less likely to have second jobs and attend school. (McCrate, 2012) There are a number of possible explanations for this. Selection effects and reverse causality could explain the pattern (for example, students may reject these schedules). But it is possible that these kinds of schedules discourage education and second jobs.

### **Benefits**

Walrasian economic theory predicts that jobs with undesirable working conditions will offer higher wages (compensating wage differentials) if workers reduce supply to these jobs and increase supply to more desirable jobs. Labor discipline models argue otherwise: the fact of incomplete contracts over matters such as work schedules includes the fact that workers cannot agree to wage premia for the very working conditions that they have not contracted for.

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McCrate, Lambert and Henly (2017) tested for compensating wage differentials among a sample of Canadian hourly employees in 2003, controlling for both fixed unobserved and time-varying observed characteristics of workers. They found no evidence at all for higher wages when hourly workers switched into unstable work schedules (or for lower wages when they switched to stable work schedules).

Unstable schedules are associated with overtime as well as part-time work in the United States and Canada. To the extent that they are associated with overtime for non-exempt (usually, hourly workers), they do by law command overtime premia in the U.S. (In Canada, the size of overtime premia, the kinds of exceptions permitted, and the ability to offer alternatives such as hours averaging vary by province.) The U.S. Fair Labor Standards Act of 1938 requires a 50% pay premium for weekly hours over 40. There is no comparable benefit for workers whose hours clock in below 40 per week, regardless of the instability. And, as discussed below, many American workers do not get overtime premia even when they perform overtime work. I have identified no other potential benefits of unstable schedules for hourly workers in the literature.

### **3.2 Costs and benefits for employers**

Both with respect to the firm's costs and benefits, it is important to distinguish between shareholders and managers. Shareholders are the residual claimant; they get the profits. Managers get the unpleasant task of directly compelling workers to provide greater availability and flexibility (although managers might be contending for the reward of bonuses and promotions). As in the retail case study by Lambert and Henly (2010) and Henly and Lambert (2015), managers on salary may have to work longer and more unpredictably when the schedules of front-line workers change. There is no necessary correlation between the effects of erratic schedules on shareholders and managers.

#### **Costs**

Transferring the effects of unstable demand to workers raises absenteeism and turnover. (Appelbaum et al, 2000) This in turn raises other costs: as workers become less attached to the firm, errors increase – for example, in stocking items (Ton (2014)). But the firms who choose to operate in this way may view this as a lower cost compared to the expectations of higher pay that tend to accompany greater job tenure. Ton argued that more fundamental changes in operations are necessary for really good jobs in retail to be profitable.

Lean staffing, which is associated with unstable scheduling, might not increase average productivity considering the risk of employee error. This risk equals the cost per error times the probability of an error (that is,  $(\text{cost}/\text{incident}) \times \text{probability of an incident}$ ). Specifically in the case of overtime, with fewer employees and each employee working more hours, more assets are at risk per employee (Siroise and Moore-Ede, no date).

At the same time, fatigue increases the chance of error and accidents. A minority of employees perform most of the overtime associated with shift work, which involves both the rotation of schedules and frequent last-minute adjustments in the event of worker absenteeism. Siroise and Moore-Ede say that 80% of overtime is done by 20% of employees, making that 20% particularly fatigued. The unpredictability of unscheduled overtime moreover interferes with work/rest/sleep schedules.

Siroise and Moore-Ede argue that overtime is not a clear benefit to employers – on the one hand, lower headcount reduces benefits and training costs, which run about 30% to 40% of base salary. But errors and accidents increase. The risk of absenteeism also increases because of stress, fatigue and family problems. Moreover, employers must pay a 50% overtime premium to non-exempt workers by law in the U.S. and in many situations in Canada, which becomes even more expensive as the employer's payroll tax for old-age insurance increases proportionately. Fatigue

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also increases workers' compensation costs for occupational injury as accidents increase (Siroise and Moore-Ede, no date).

Firms can offset some of the costs of unstable scheduling with greater employee involvement in the determination of work schedules. Davis and Aguirre (no date) discuss the following benefits of employee involvement in schedule determination for shift work. With increased worker satisfaction with the schedule, there are fewer unscheduled absences. There is improved daytime sleep quality, and decreased physical and psychological circadian malaise and overall tiredness, reducing errors and accidents. Employee complaints fall. Workers understand more about the administrative issues involved in management of the facility. Organizational commitment increases, with decreased turnover and fewer vacant positions. Workers are more easily able to maintain teamwork, as well as in-role and extra-role performance.

### **Benefits**

Employers benefit foremost from flexibility: with demand-oriented flexible scheduling, firms only pay workers when the value of output equals or exceeds the wage ( $MRPL \geq w$ ). Profits increase. Thus, for example, retailers schedule according to expected customer traffic in the store; managers in hospitality schedule according to hotel census; and airline catering firms schedule to flights, reducing labor inputs when flights are cancelled. Firms can thus transfer risk to workers (Lambert, 2008).

Employers also benefit from the increase in average effort because of the elimination of slow periods. (Rubery et al 2006) Profits increase. Lean staffing, which is associated with unstable scheduling, may also increase average productivity (However, see the discussion of the associated costs, above).

When total hours of work are unstable, employers get benefits in the form of labor discipline, which in this context refers both to workers' effort and temporal availability. McCrate, Lambert, and Henly (2017) argue that labor contracts have incomplete provisions concerning specific hours of work and availability. Under a regime of incomplete contracts, underemployment emerges as a mechanism to increase availability (as well as effort), as workers compete for scarce hours and income. Under these conditions, workers accept very undesirable hours such as weekends and "clopennings" (where the worker is expected to work consecutive late closing and early opening shifts).

### **3.3 Costs and benefits for society at large**

First, as Clawson and Gerstel (2014) found for health care, unstable schedules have ripple effects: when workers need to change work times, they often try to trade shifts with other workers, who then make their own adjustments. Presumably workers only make trades with each other that they expect to be mutually beneficial, but these trades often have repercussions for others. Arrangements such as childcare and appointments with doctors and teachers may need to be rescheduled. Usually professionals such as doctors and formal daycare providers can protect themselves from clients' schedule volatility with business policies that have already been in place for a long time to insulate them from clients' forgetfulness or tardiness. Formal daycare centers are usually quite adamant about daily closing times, and may disenroll a child after repeated late pick-ups. Doctors, dentists and other professionals frequently have a policy of penalties for no-shows or for very late schedule changes, although they often exercise discretion in executing the policy. While professionals may be well insulated from last-minute changes, the family members and friends of workers with sudden changes in schedules who tend to be called on at the last minute for help with childcare or transportation are usually not, and they often reluctantly accept changes to their own plans in order to help their siblings or adult children in need.



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Second, volatile earnings associated with unstable schedules affect eligibility for several safety net programs intended for low-income Americans in the U.S. Public expenditures on benefits from some programs, such as TANF, SNAP, and CCDF (described in section 3.1, where workers need to recertify their eligibility frequently, are more unpredictable, and probably go down as workers become discouraged by repeated cumbersome re-application for benefits, or as they are actually disqualified (Ben-Ishai, 2015).

The Earned Income Tax Credit is another safety net program that affects public expenditures, but in a different way. It is a substantial wage subsidy for the working poor, intended to encourage work. Workers must have positive earnings to qualify for benefits. Eligibility and the size of the subsidy, based on family size and family earnings, are determined once a year when Americans file their taxes, and are thus not affected by month-to-month earnings volatility. To the extent that unstable schedules are associated with fewer hours of market work, there may be greater public expenditures on the Earned Income Tax Credit (both at the federal level and in the states that have their own Earned Income Tax Credit programs). However, no one has estimated the magnitude of this effect, to my knowledge.

Consumers might get lower prices and the option of shopping at unconventional times, which has become somewhat more necessary as their own schedules become more erratic, and as all the adults in many households work full-time in the market. The benefit of lower prices and greater store opening hours may be offset by worse customer service due to turnover.

## **4. Incidence Among Workers**

### **4.1 United States – aggregate**

Variable starting and stopping times, variable total hours of work, and short notice all overlap to some extent with more familiar forms of variable working time that have been measured somewhat consistently in the United States. Typically these survey items inquire about on-call work, shift work, and/or “irregular” times of work. I will discuss these first and conclude with some caveats about their ability to capture the entirety of unstable work scheduling.

The Bureau of Labor Statistics used to inquire about on-call work in the Contingent Worker Survey, but it was last administered in 2005. The measure of on-call work has been recently updated in the RAND-Princeton Contingent Worker Survey. (Katz and Krueger, 2016) These surveys have broad coverage by age, but the reports based on them typically do not distinguish between hourly and salaried workers. Using both the older and newer sources, Katz and Krueger estimated the percentage of American workers who were on call in 1995, 2005, and 2015. The proportion increased, but remained small: from 1.6% in 1995, to 1.7% in 2005, to 2.6% in 2015. Increases were much larger in a few industries: agriculture, forestry, fishing and hunting (from 2.3% in 1995 to 9.0% in 2015), transportation and warehousing (from 2.8% to 11.3%), education, training and library (from 4.3% to 7.7%), and sales and related (from 0.8% to 3.9%).

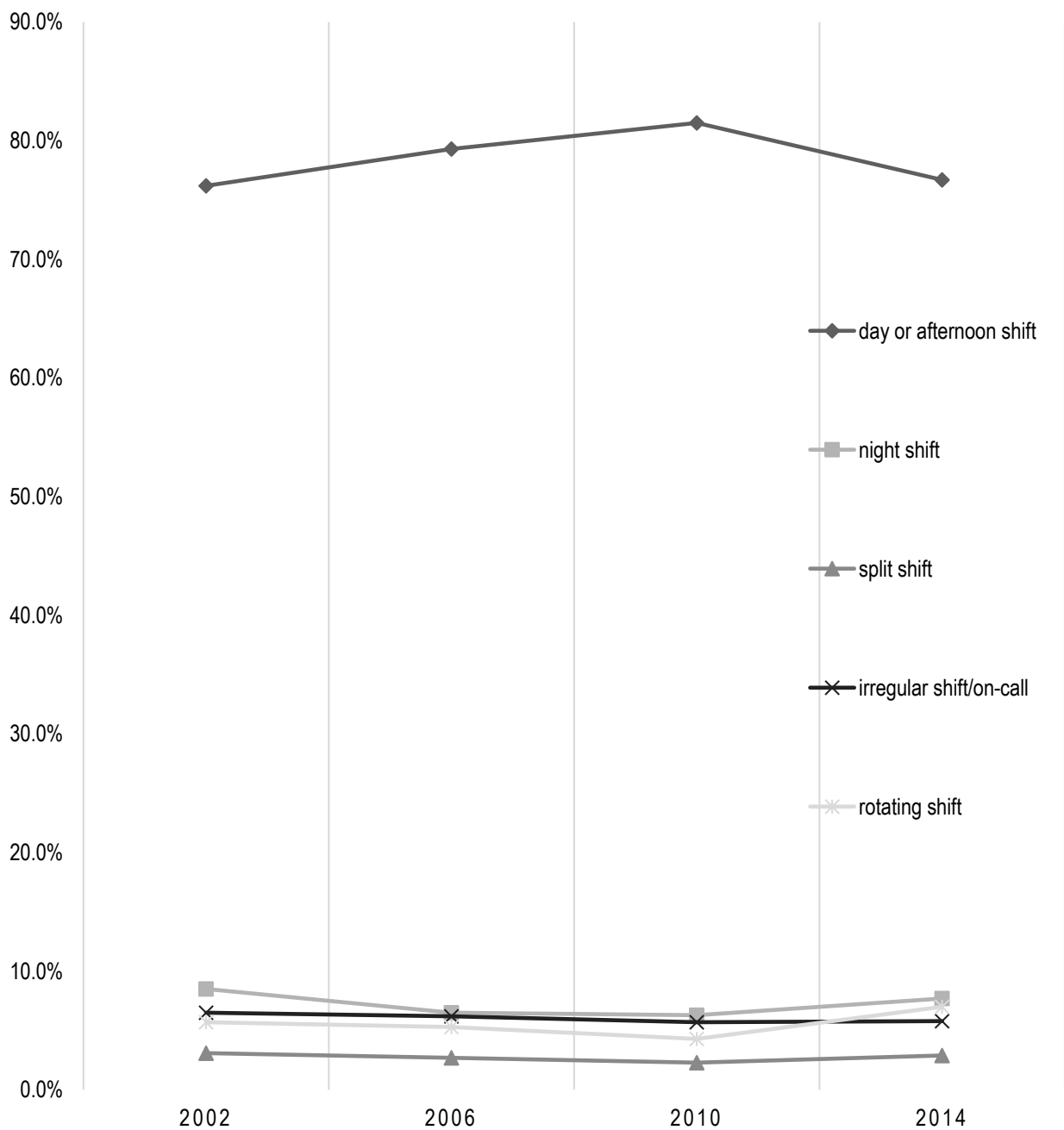
The General Social Survey (GSS) has regularly queried respondents about on-call work and other kinds of work schedules, using what I will call the “schedule type” variable:

- regular daytime schedule,
- evening,
- night,
- rotating,
- split,
- irregular/on call,
- other.

I will summarize what we already know about on call, shift, and “irregular” work from both these sources, and conclude with some cautions about interpreting them.

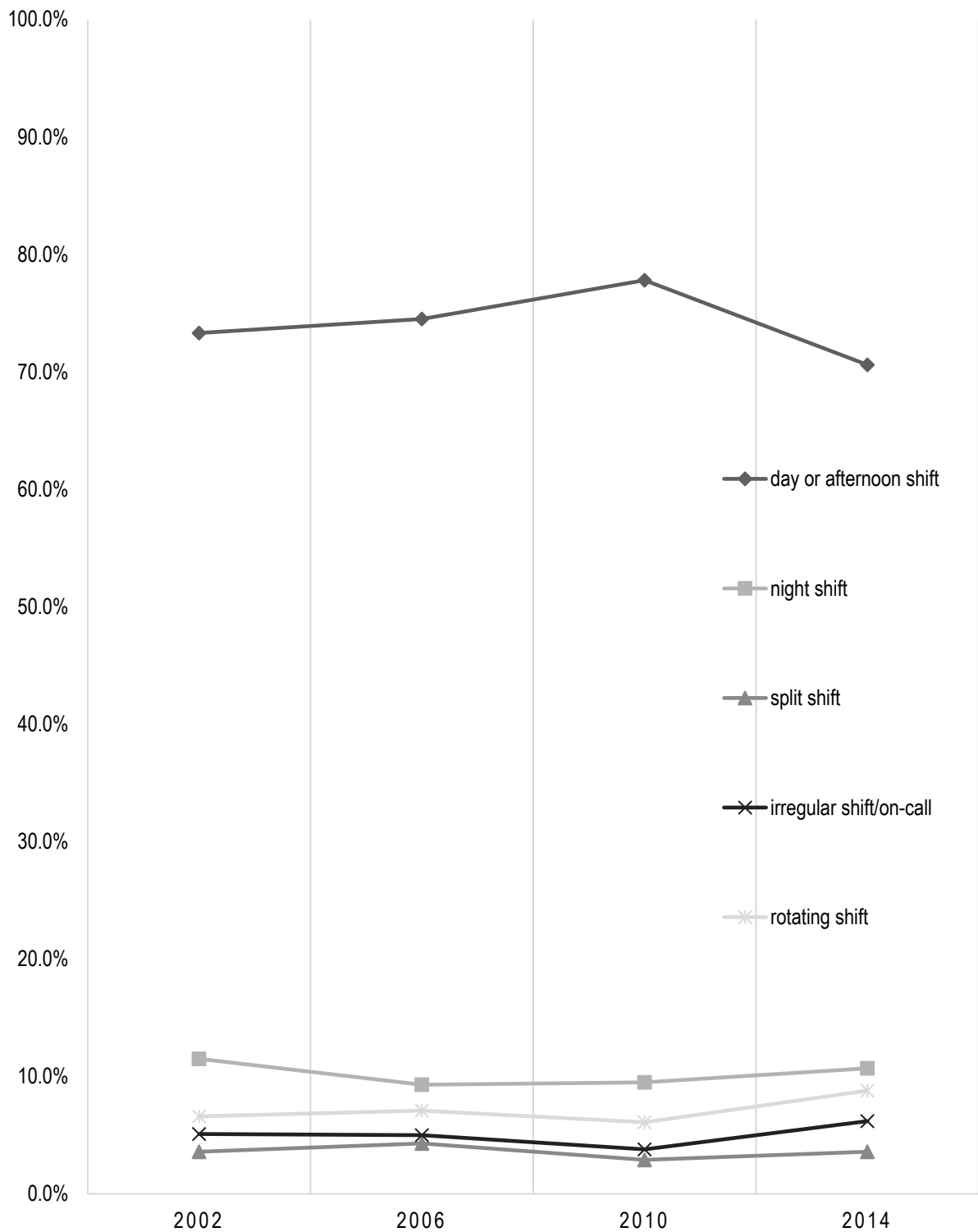
While on-call work is largely unpredictable, shift work usually involves the regular rotation of shifts combined with some irregular variation, such as being asked to report to work on a day off, to come in early for a shift, or to stay after the end of a regular shift to cover production needs (perhaps due to absenteeism, or to large orders that need to go out, or due to machine or supply breakdowns) (Davis and Aguirre, no date).

**Figure 5. Schedule Type, General Social Survey**  
(civilian employees ages 18-65)



Source: author's calculations.

**Figure 6. Schedule Type, General Social Survey**  
(selected years, civilian employees ages 18-65 paid by the hour)



Source: author's calculations.

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Figures 5 and 6 (author's calculations) show the proportions of all prime-age civilian employees (Figure 5) and of prime-age hourly civilian employees (Figure 6) who reported various schedule types from 2002 to 2014 in the GSS. About 4% to 6% of both groups reported irregular/on-call shifts in each year, with no trend over time. A total of approximately 13% to 19% of each group reported split, irregular/on call, or rotating shifts in each year, also with no discernible trend over time.<sup>10</sup>

This schedule type variable probably greatly underestimates the extent of unstable schedules, because workers with erratic schedules during daylight hours often say that they work daytime shifts. McCrate (2012, pp. 45-48) tabulated the incidence of shift and irregular work using a similar schedule type variable in the most recent (2004) CPS-WSS, which has a much larger sample. (The only difference in wording compared to the GSS is that the "irregular" category in CPS-WSS did not specifically mention "on call".) She found that 3.8 percent of target respondents (ages 18–65, civilian, and not self-employed) said they worked irregular schedules; another 3.9 percent said that they had rotating, split, or some other kind of shift. But 61.4% of target respondents in that survey who volunteered that they had varying times of work that they didn't control (cell D in Figure 1) also said they had daytime shifts, not irregular shifts. Because variable starting and stopping times are often contained in daytime hours, the question on shift type probably greatly underestimates the percentage of workers on unstable schedules.

The older dataset, the 1997-2004 CPS-WSS, makes possible a more direct estimate of the proportion of workers in the U.S. who were in cell D in Figure 1. It had questions on starting and stopping times (with volunteered responses that these vary), and on whether the respondent had a flexible schedule that allowed him/her to vary his/her starting or stopping times. (Both variability and schedule control were measured with dichotomous variables.) Because respondents had to volunteer that their starting and stopping times varied, this probably also underestimates the actual percentage of workers on unstable schedules. McCrate (2012) found that the proportion of civilian employees ages 18-65 who had variable starting and stopping times that they did not control increased from 6.6% in 1997 to 11.5% in 2004. The proportion of all civilian hourly employees ages 18-65 who volunteered that their starting and stopping times varied (and that they did not control them) was somewhat higher, but it displayed a similar trend. For this subset, the percentage of the target population that had variable starting and stopping times that they did not control (cell D in Figure 1) increased from 8.3% in 1997 to 13.4% in 2004 (author's calculations).

Both the "schedule type" variable and the "cell D" variable measure the variability of the timing of work. If starting and stopping times are variable, total weekly hours and the extent of advance notice may also be variable. The rest of this section provides measures of those phenomena.

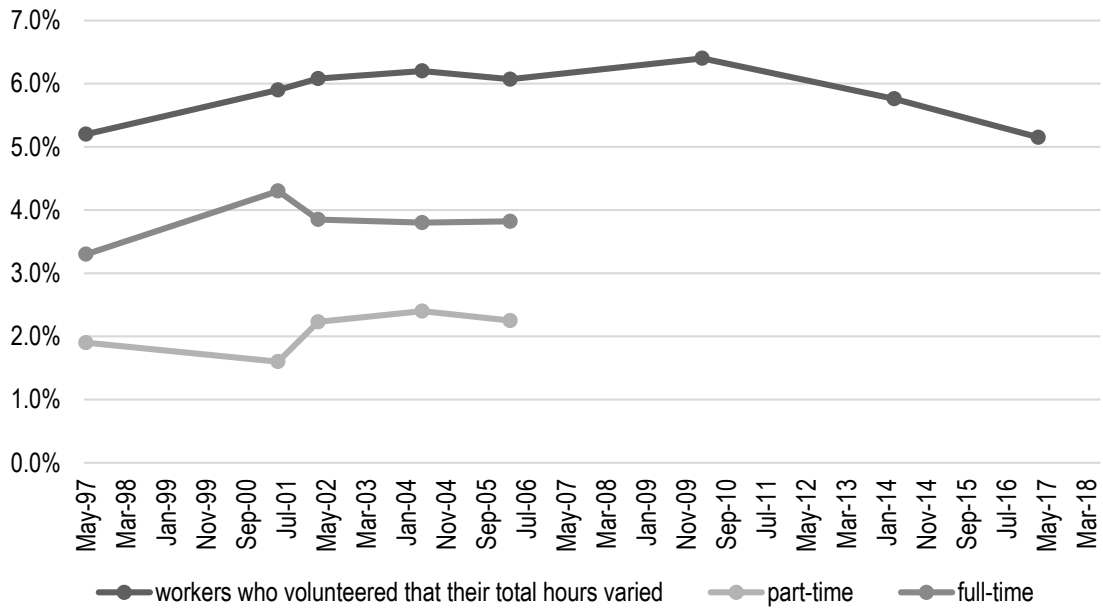
Every year the Current Population Survey (CPS) asks a large sample of American workers, "how many hours per week do you usually work at your main job?" For about the last twenty years, if the respondent volunteered that his/her hours varied, that answer has been recorded. Before 2010, the Census Bureau also coded whether these workers' hours on the main job varied within the range of full-time or part-time.<sup>11</sup>

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<sup>10</sup> See also Golden, 2015, who grouped the data differently.

<sup>11</sup> After that, the Census Bureau began to code this differently, adding together hours from the main job and other jobs.

**Figure 7. Variability in Total Hours per Week**  
(CPS, selected months, civilian hourly employees ages 18-65)

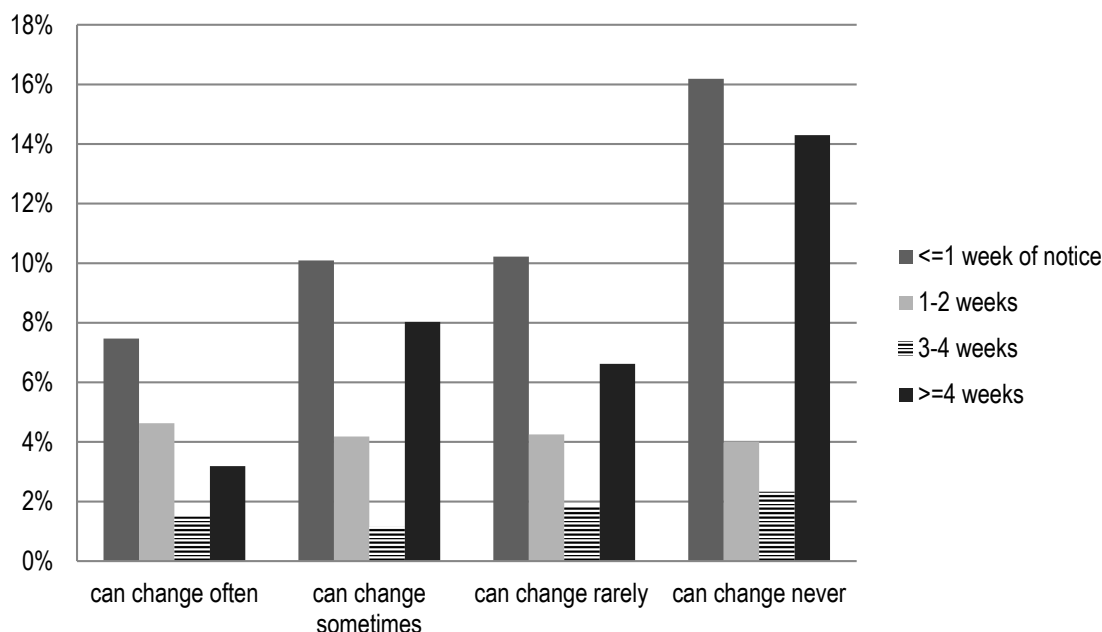


Source: author's calculations.

Figure 7 shows that between 5% and 6% of the target population has consistently volunteered that their total hours varied, and in the earlier years for which the data were available, a larger proportion was full-time rather than part-time. Because respondents had to volunteer that their total hours varied, these are probably also low estimates.

Variability in total hours matters a great deal if workers' total income varies as a result. The Federal Reserve's Survey of Household Economics and Decision-Making asked whether a respondent, along with any partner or spouse, had income that varied from month to month in the past year. Among employees and consultants/contractors ages 18-65, 8.4% said that their income often varied quite a bit from one month to the next, and another 25.0% said that there were some unusually high or low months although their income was otherwise roughly the same in most months. Of these two groups with variable income, 51% said that an irregular work schedule contributed to their income instability. The proportion who cited an irregular work schedule greatly exceeded the proportion who mentioned seasonal employment and periods of unemployment (as well as bonuses, commissions, investment income, and other).

**Figure 8. Advance Notice by Schedule Control**  
(General Social Survey, 2014, civilian hourly employees ages 18-65)



Source: author's calculations.

Figure 8 supplements the Federal Reserve data on advance notice shown in Figure 3. Figure 8 shows the joint distribution of advance notice by schedule control for prime-age civilian hourly employees in the 2014 GSS. Schedule control is measured by “How often are you allowed to change your starting and quitting times on a daily basis?” Advance notice is measured by a new question, only available in the 2014 GSS: “How far in advance do you usually know what days and hours you will need to work?” (The sum of all the entries in the figure is 100%).

The figure shows that the modal category for schedule control among prime-age civilian hourly employees is that they can never change their schedules. Summing across the categories of advance notice, the percentage of target workers who can never change their starting and quitting times on a daily basis is a total of 36.8% of all target workers. Another 22.9% can only rarely change these times. Within three of the four categories of schedule control, most target workers get either very short lead times (one week or less), or at least moderately long lead times (four weeks or more). The total percentage of all target employees who can rarely or never change their schedules who also get less than one week of advance notice is 26.4%. The total percentage who can rarely or never change their schedules who get a month or more of advance notice is 20.9%.

Overtime tends to be particularly unpredictable. Using the Working in America dataset, Golden (2014) calculated that 53 percent of union workers and 56 percent of nonunion workers said their required overtime work was usually scheduled at the last minute and hard to plan for.

## 4.2 United States: Young workers

Lambert, Fugiel and Henly (2014) investigated work schedule instability using data from the 1997 National Longitudinal Survey of Youth (NLSY97) in the 2011 wave, the first time that any of the big American panel studies inquired about work schedules. In 2011 the respondents were ages 26-32. One finding concerned instability in total hours per week, by control of the specific times of work. Control of the timing of work was measured through responses to a question about how work schedules were usually decided, and the “instability ratio” was

calculated as the ratio of (maximum – minimum hours)/usual total hours per week. Because the authors reported results for workers paid by the hour, their results also provide an indication of instability in weekly earnings. Lack of schedule control for these young workers was broadly distributed across the instability ratio (Table 1), with employers deciding unilaterally in about 50-60% of cases.

**Table 1. Schedule control by work hour instability**  
(NLSY97, hourly workers ages 26-32 in 2011)

instability ratio	employee decides			total
	employer decides	employer decides with some input	(within limits or freely)	
0	57%	28%	15%	100%
>0, <0.25	51%	31%	18%	100%
≥0.25, <0.5	50%	36%	13%	100%
≥.5	47%	33%	19%	100%

Source: Lambert, Fugiel and Henly, 2014.

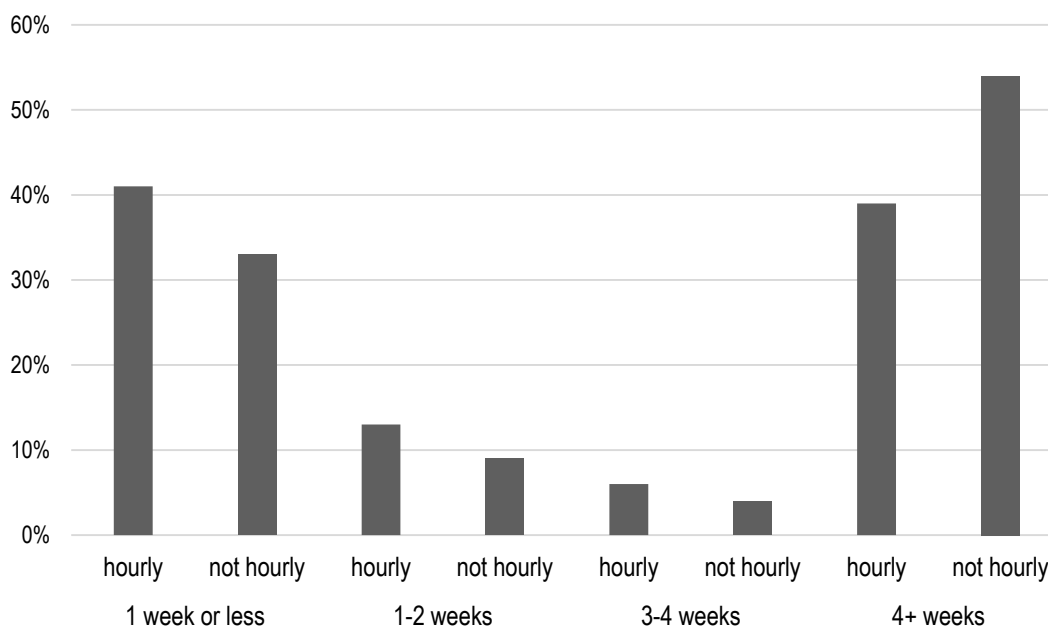
Lambert, Fugiel and Henly (2014) also report the length of advance notice for the same group of young hourly workers in 2011, comparing them to their nonhourly counterparts. (Table 2 and Figure 9) While unpredictability was widely distributed among all categories of workers represented in the table, workers paid by the hour, and part-time workers, were more likely to have one week of notice or less. Those paid by salary or something else were more likely to get at least a month of notice, as were full-time workers (I will discuss the distributions by gender, race and ethnicity shortly).

**Table 2. Advance notice**  
(NLSY97, hourly workers ages 26-32 in 2011)

-	1 week or less		1-2 weeks		3-4 weeks		4+ weeks	
	hourly	not hourly	hourly	not hourly	hourly	not hourly	hourly	not hourly
all employees	41%	33%	13%	9%	6%	4%	39%	54%
full-time	39%	29%	12%	8%	5%	4%	44%	58%
part-time	47%	52%	17%	15%	10%	4%	27%	29%
men	48%	41%	12%	11%	4%	4%	35%	45%
women	34%	25%	14%	8%	8%	5%	43%	63%
white	39%	30%	12%	8%	7%	4%	42%	57%
black	49%	33%	15%	13%	5%	5%	31%	50%
Hispanic	46%	43%	15%	8%	4%	4%	35%	45%

Source: Lambert, Fugiel and Henly, 2014. The "hourly" row entries sum to 100%, and the "not hourly" row entries sum to 100%.

**Figure 9. Advance notice of work times**  
(NLSY97, employees ages 26-32 in 2011)



Source: Lambert, Fugiel and Henly, 2014.

### 4.3 United States: Gender

In the United States jobs with variable starting and stopping times not controlled by the worker are somewhat more likely to be held by men. According to the Federal Reserve's Survey of Household Economics and Decision-Making, 18.3% of prime-age male employees and consultants/contractors had variable work times set mainly according to employer needs; 14.4% of women had the same kind of schedule. (author's calculations) Among those with such schedules, men were much more likely to have very short notice: 60.8% of the men learned of their schedules with three days notice or less, vs. 44.9% of the women. (author's calculations)

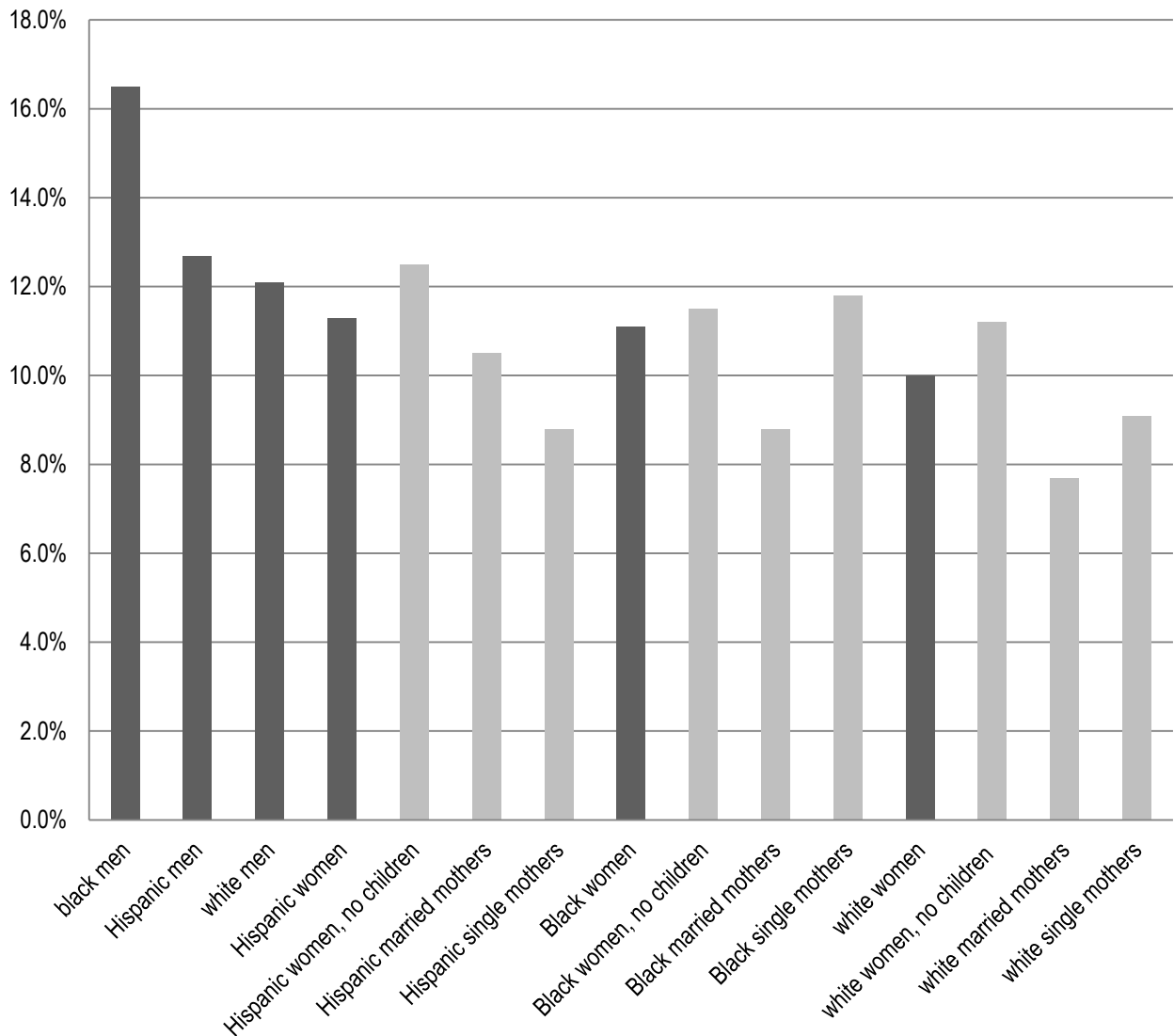
Young men in the NLSY97 were also more likely than young women to have short notice of their schedules. (Lambert, Fugiel and Henly, table 2 above). In addition, in 2004 the percentage of male prime-age civilian employees who worked variable starting and stopping times not under their control, according to the CPS-WSS, was 12.6%, compared to 10.2% for their female counterparts. (The difference was small but statistically significant. McCrate, 2012). The incidence of schedules with erratic starting and stopping times is especially high for black men and Hispanic men. Figure 10 (next page) is from McCrate (2016), and is based on the 2004 CSP-WSS data for prime-age civilian employees. Looking first at the incidence of this kind of schedule by gender and race/ethnicity (the dark bars), it is clear that specifically black men are more likely to hold jobs with unstable schedules than any other racial/gender group.

In the U.S., gender and race differences are compounded by marital status and parenthood. Examining the lighter bars in the figure, which disaggregate by marital status and parenthood, unstable starting and stopping times not controlled by workers are least likely to be experienced by white married mothers, who either self-select out of these jobs or face statistical discrimination. White women with no children are not much more likely to have unstable schedules than white men. Thus it seems that if mothers have the means to opt out of unstable schedules, such as another earner in the household, they do so (or employers assume that they will and do not select them for these jobs). Black single mothers, however, have an elevated risk of schedule instability compared to other mothers.



If this figure had illustrated the distribution of unstable starting and stopping times by gender for part-time workers only, it most likely would have looked quite different. It is very probable that women are concentrated among unstable part-time jobs for the same reasons that they are overrepresented in all part-time jobs. Similarly, men are more likely to be represented among those with unstable overtime schedules for the same reasons that they are concentrated in all overtime work. However, the Current Population Survey did not attempt to estimate average hours over any period for respondents who said that their usual total hours varied. Since variability in total hours and variability in starting and stopping times are highly correlated, this would not have been a reliable measure.

**Figure 10. Unstable starting and stopping times, by gender, race/ethnicity, and presence of children (CPS-WSS, 2004, civilian employees ages 18-65)**



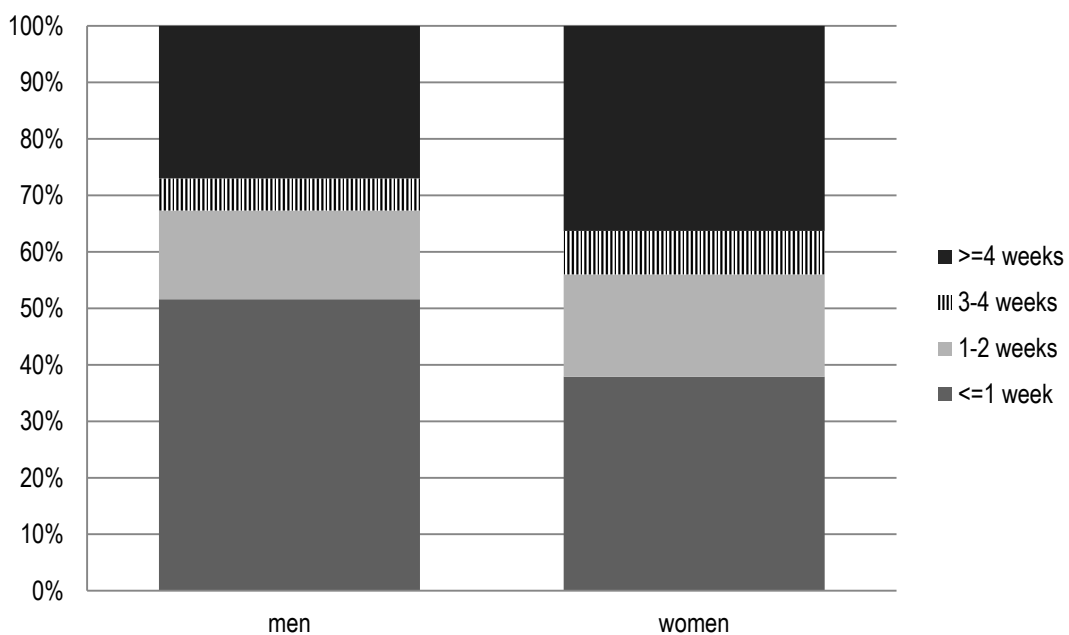
Source: McCrate, 2016.

Another aspect of unstable scheduling where women are no more disadvantaged than men is unstable total hours. While men are more likely to have unstable starting and stopping times, prime-age civilian women employees paid by the hour are just slightly more likely than their male counterparts to have variable total weekly hours (4.3% vs. 3.7%), according to the U.S. May 2004 WSS (McCrate, 2016).

Although I am aware of no findings on the correlation of overtime and unpredictability for the U.S., its instability properties may be similar to those of overtime in Canada and Western Europe. In Canada, 58% of hourly workers who usually work overtime learn of their overtime schedules one day or less in advance (author's calculations, Workplace and Employee Survey). Across the original fifteen countries of the European Union plus Norway, unpredictability is more strongly correlated with overtime than part-time work (McCrate, 2017, Table 2).

Consequently, while the General Social Survey does not inquire specifically about the extent of advance notice for overtime, it is perhaps not surprising that American men are also more likely than women to get short notice of their overall work schedules (Figure 11).<sup>12</sup>

**Figure 11. Advance Notice by Gender, Hourly Workers**  
(GSS, 2014, civilian hourly employees, ages 18-65)



Source: Author's calculations, General Social Survey, 2014.

The fact that men's unstable schedules are more likely to involve overtime and that women's are more likely to involve part-time work has implications for compensation. (Rubery and Fagan, 1998) The American Fair Labor Standards Act of 1938 requires a 50% pay premium for hourly workers who work beyond 40 hours per week. To the extent that overtime and unpredictability are correlated, hourly workers who perform overtime are compensated indirectly for unpredictability. But part-time work receives no statutory compensation for instability, direct or indirect. Moreover, the part-time pay penalty is unusually large in the U.S. compared to some western European countries (Gornick and Meyers, 2003) In the U.S., there is nothing like the European Union Convention on Part-Time Work, which requires equal pro rata treatment of part-time and full-time workers. (EUR-Lex, no date; International Labour Organization, no date).

However, it is worth noting that for at least two reasons, many American workers in fact do not receive overtime premia. These considerations reduce the extent to which the differential treatment of overtime and part-time work contributes to the gender pay gap in the U.S. First, as in many countries, salaried workers with professional, executive or managerial responsibilities

<sup>12</sup> The GSS sample size was too small for additional calculations by race and gender, or nativity and gender.

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are not eligible for overtime pay, if their salary falls below a threshold. This threshold has not been indexed for inflation, so that while the 1975 annual salary threshold was \$69,000 in 2015 dollars, by 2016 it had declined to \$23,600. The result is that many workers who were once expected to receive overtime premia under the FLSA no longer receive it.<sup>13</sup>

Second, there are widespread violations of the FLSA, including failure to pay overtime premia when required. This is an especially important problem for low-wage immigrants and blacks who are most likely to experience both unstable scheduling and labor law violations in the U.S. A 2008 survey of over four thousand nonmanagerial and nonprofessional workers in low-wage industries in Chicago, Los Angeles, and New York City uncovered widespread violations of the FLSA, and even widespread violations of minimum wage laws.<sup>14</sup> (Bernhardt, et al, 2009) In this sample 76.3% of the low-wage workers surveyed who performed overtime work and were eligible for overtime premia did not receive them. Within the latter group, the rates of violation were much higher for foreign-born workers (80.4%) than for the native-born (68.2%). (Bernhardt, et al, 2009, pp. 20 and 44) Contractual arrangements such as franchising and subcontracting, which have become increasingly common in such industries as fast food, janitorial services, and hospitality, create incentives for violation of the FLSA. Franchisees, who usually own and manage their own outlets, must generate profit with very low product prices which are set by the franchisor. In contrast, the franchisor seldom specifies hours, creating incentives for FLSA violations. “In essence, a franchisee cannot service the contracts provided by the franchisor at the market prices prevailing in many cases and still comply with labor standards without going into the red.” (Weil, 2014, p. 140).

To summarize what can be said about gender: race, nativity, motherhood and marriage matter. White married mothers in the U.S. are the least likely of the demographic groups examined to have jobs with variable starting and stopping times that they do not control. Unmarried, childless American women are about as likely as men to have this kind of schedule. Among hourly workers, American women are also less likely than American men to have highly unpredictable schedules. Women paid by the hour are slightly more likely than men paid by the hour to have variable total weekly hours. Thus the gender story in the U.S. is not a simple one of female disadvantage, but to a great extent it is a commentary on the gender division of labor between the home and the market. (McCrate, 2012) Work schedules that are erratic and unpredictable (as well as long) make it very difficult for mothers to participate in the labor force on the same terms as men. If they are white and married, they can often avoid these jobs (or employers do not choose them for these undesirable work schedules). In this respect, among the EU-15 plus Norway, the gender distribution of unstable work schedules in the U.S. is most similar to that of the U.K. and least similar to that of the Scandinavian countries. (McCrate, 2017) However, women do experience a distinct gender disadvantage to the extent that they are concentrated in part-time unstable schedules, so they are not entitled to any kind of indirect compensation for instability, such as that described above for the combination of instability and overtime.

#### **4.4 United States: Race and Nativity**

Blacks, especially black men, are much more likely to work schedules with variable starting and stopping times that they do not control. (See Figure 10, above.) They are also more likely to have very short notice of their work hours. (Table 2, above) In a study of variable scheduling

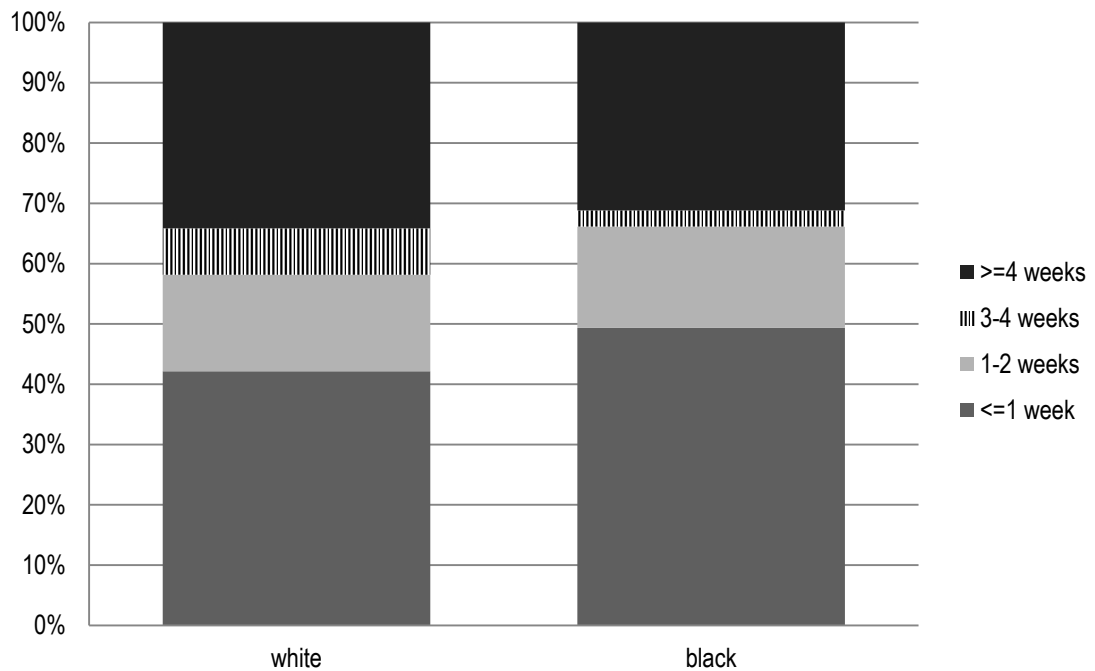
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<sup>13</sup> During its final months in office, the Obama administration issued a regulation that would have reset the threshold at \$47,476. At that level, the White House estimated that 4.2 million more workers would have been eligible for overtime premia. It would also have strengthened existing overtime protections for 5.7 million additional white collar salaried workers and 3.2 million salaried blue collar workers whose entitlement to overtime pay would have no longer relied on the application of the “duties test”. (U.S. Department of Labor, 2016; Hanauer and Reich, 2016) However, a federal judge issued a temporary injunction against the new threshold shortly before it went into effect. The Trump administration shows no inclination to pursue the matter in court, and the injunction remains in force.

<sup>14</sup> Low-wage industries were those in which the median wage for front-line workers was less than 85 percent of the city’s median wage.

practices in Seattle, both African Americans and Latinos were much more likely to get their schedules on short notice, to be required to work on call, to be sent home early, or to work “clopings” – late closing shifts followed by early opening shifts the next day (Vigdor et al, 2016). Figure 12 also confirms this pattern.

**Figure 12. Advance Notice by Race, Hourly Workers**  
(civilian hourly employees, ages 18-65)



Source: Author’s calculations, General Social Survey, 2014.

Immigrants may also be more likely to work schedules with variable starting and stopping times that they do not control (12.6% of immigrant civilian employees ages 18-65 in 2004), compared to their native-born counterparts (11.2%). While the extent of advance notice, as calculated from GSS data, was not significantly different for immigrants and natives, the Hispanic correlation reflected in Figure 10 above seems to reflect nativity. Most recent U.S. immigrants are from Mexico or Central America, and only nativity rather than “Hispanic” was significant in a multivariate context. (McCrate, 2012) Those who are undocumented and must consider the risk of deportation are likely to be particularly vulnerable, although there are no data on work schedules by legal immigration status.

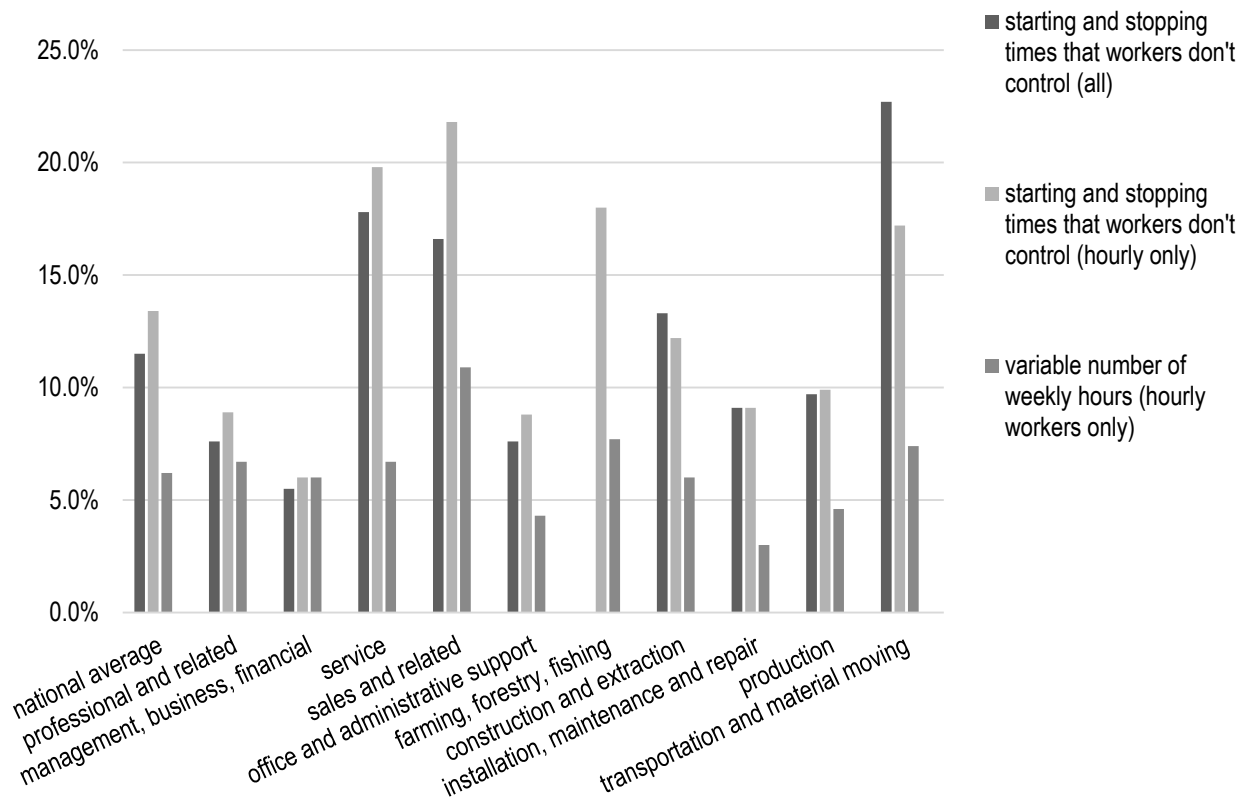
#### 4.5 Occupations: United States

I reported schedule instability (in the timing of work) by occupation for the large 2004 CPS-WSS sample for all civilian employees ages 18-65 (McCrate 2012). Office and administrative support workers had relatively low incidence of variable times that workers did not control. Food preparation workers, personal care service workers, and transportation and material moving workers had quite high incidence of this kind of instability.

Figure 13 supplements that information by showing the extent of starting and stopping instability, as well as total hours instability, just for the subset of these workers paid by the hour. (I used one of the older datasets because of its comprehensiveness with respect to age as well as its large sample size.) The national proportion of unstable starting and stopping times was higher for hourly workers than for all workers in the target population. The incidence of starting and

stopping time instability was especially elevated for hourly service and sales workers, compared to all service and sales workers in the target population. The incidence of starting and stopping time instability was lower among hourly workers in transportation than it was among transportation workers in the target population.

**Figure 13. Incidence of Unstable Schedules, by Occupation**  
(CPS-WSS, 2004, civilian employees ages 18-65)



Source: McCrate, 2012, and author's calculations.

More recently, Lambert, Fugiel and Henly reported several measures of schedule instability for several occupations that are characterized by particularly high instability, for the young workers in the NLSY97 in 2011 (Table 3):

**Table 3. At risk occupations**  
(hourly and non-exempt workers ages 26-32 in 2011)

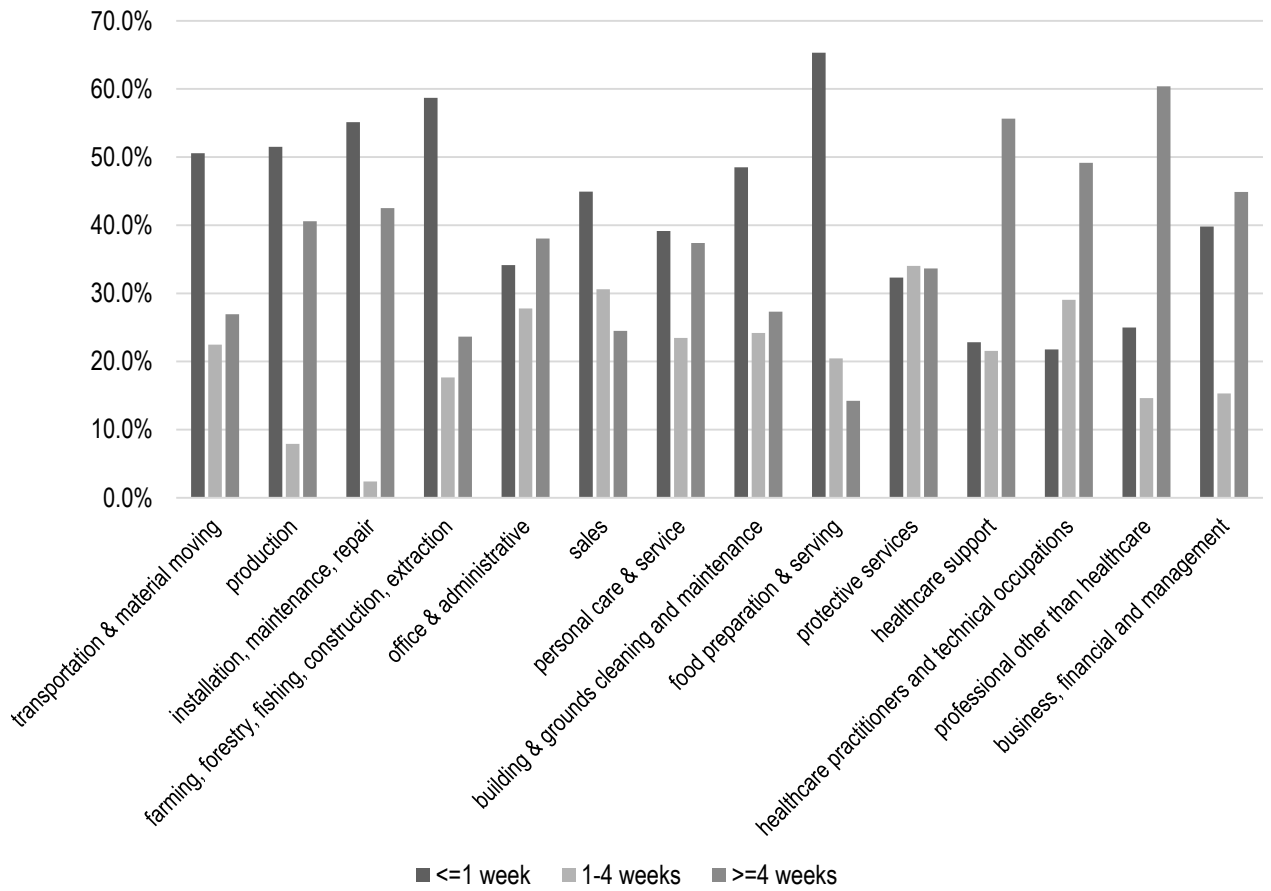
	any fluctuation	instability ratio (if hours vary)	1 week or less notice	employer decides timing
janitors and housekeepers	66%	0.43	40%	50%
food service workers	90%	0.68	64%	39%
retail workers	87%	0.48	50%	44%
home care workers	71%	0.62	55%	37%

Source: Lambert, Fugiel and Henly, 2014.

Figure 14 illustrates the extent of advance notice for prime-age civilian employees in the 2014 General Social Survey, and Figure 15 restricts the sample further to hourly prime-age civilian employees. These figures are based on very small sample sizes, and estimates for some of the smaller occupations may not be very precise.

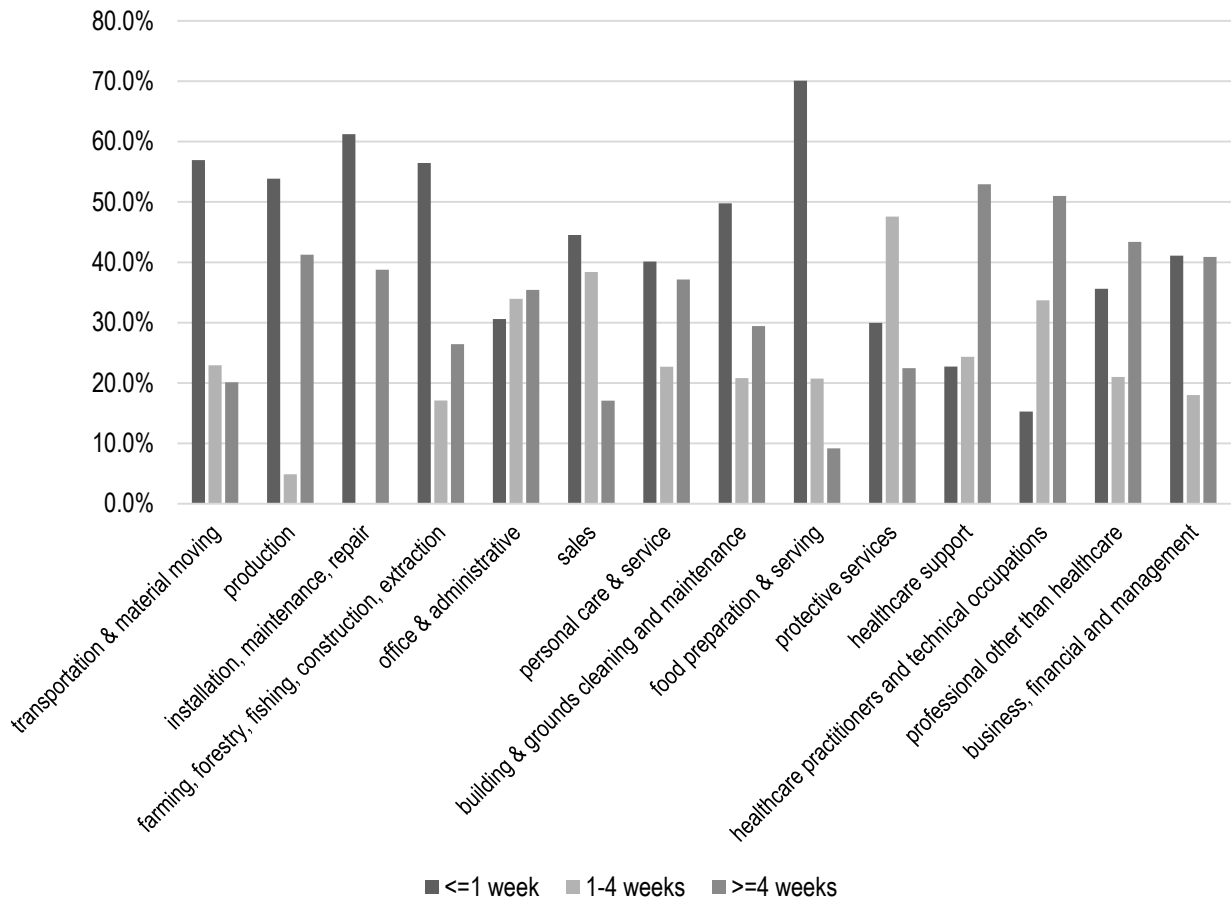
For the hourly employees of Figure 15 and for the larger population of employees in Figure 14, very short advance notice – one week or less – was by far the most common in food preparation and service occupations, followed by transportation and material moving; production, installation and repair; farming, forestry, fishing, construction and extraction occupations (a highly aggregated category because of small sample sizes); building and grounds services; and sales (wholesale and retail combined).

**Figure 14. Advance Notice by Occupation**  
 GSS, 2014, civilian employees ages 18-65



Source: author's calculations.

**Figure 15. Advance Notice by Occupation**  
GSS, 2014, civilian hourly employees ages 18-65



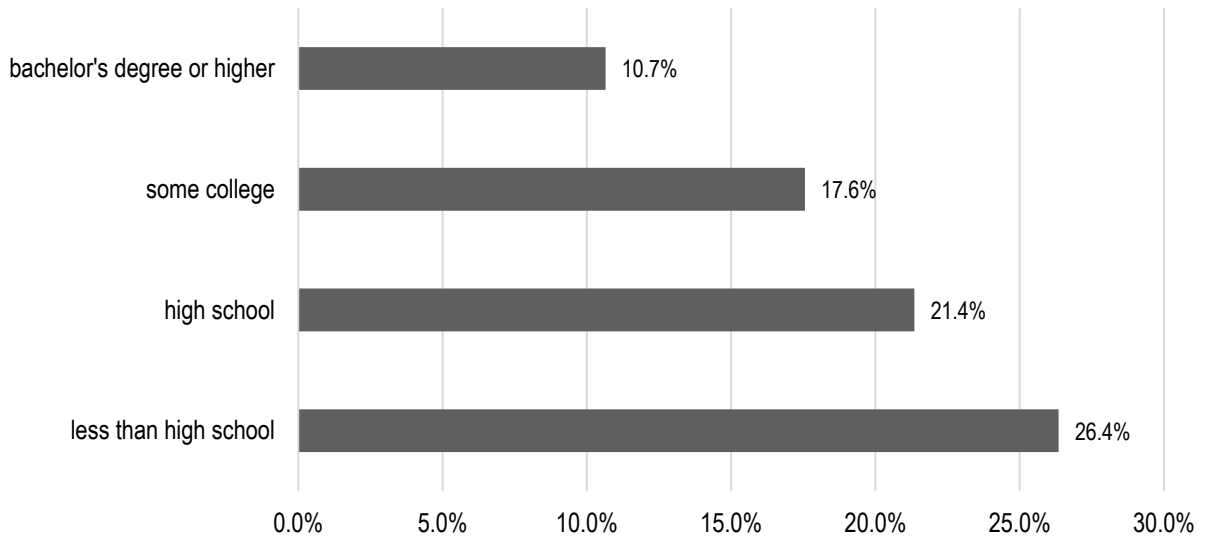
Source: author's calculations.

#### 4.6 Education and job tenure, United States

Figure 16 illustrates the distribution of unstable schedules by education for 2016, according to the Federal Reserve's Survey of Household Economics and Decision Making. Unstable schedules feature prominently in each educational group, but they are concentrated among workers with a high school degree or less.



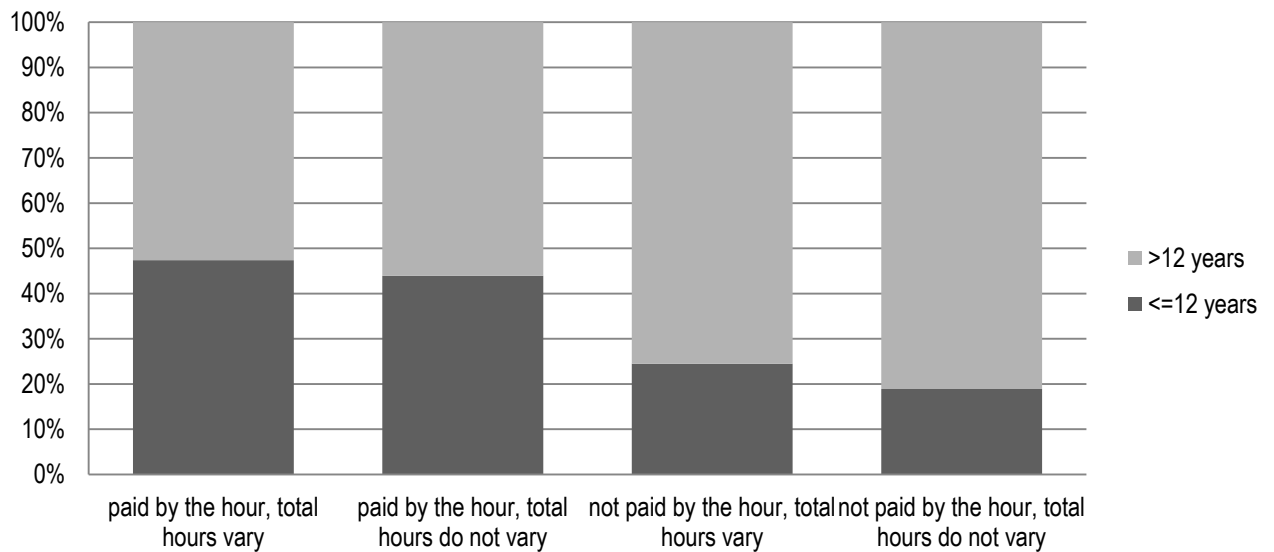
**Figure 16. Workers with Jobs that have Variable Schedules based primarily on Employer's needs, by Education**  
 (Employees and consultants/contractors ages 18-65, Survey of Household Economics and Decision Making, 2016)



Source: author's calculations.

The March 2017 CPS (Figure 17) provides information on total hours instability by level of education. It illustrates that people who are paid by the hour have on average less education, and that this is prima facie independent of total hours variability.

**Figure 17. Education by Total Hours Variability and Type of remuneration**  
 (March 2017 CPS, civilian employees ages 18-65)

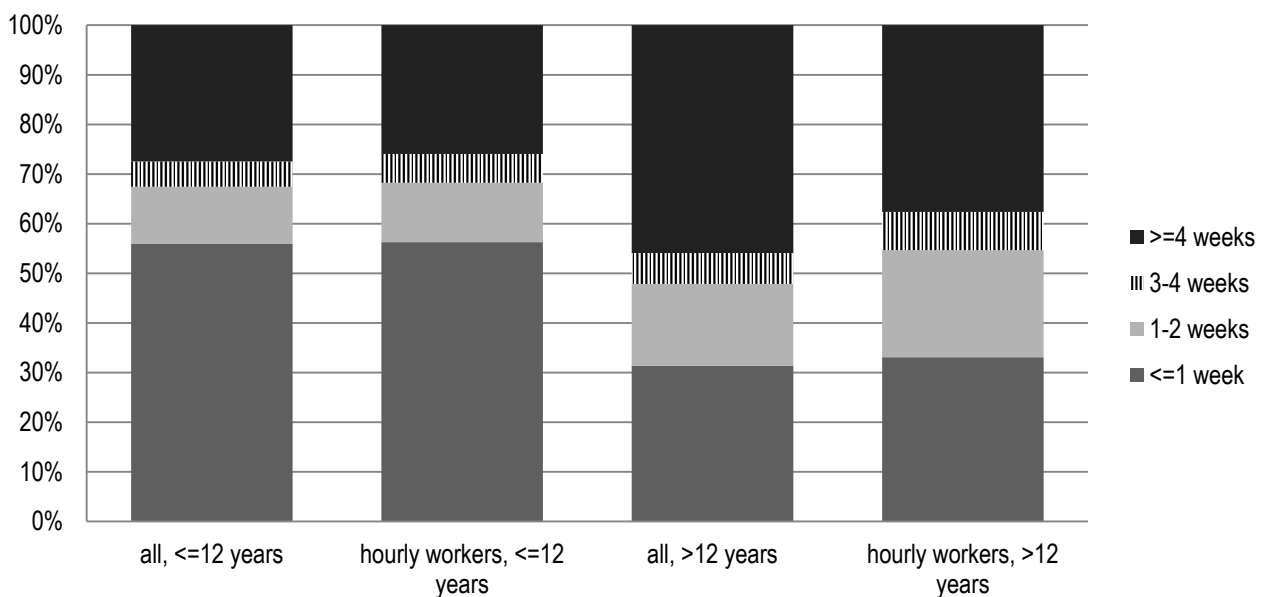


Source: author's calculations.

Figure 18 shows the extent of advance notice for four different groups: those in the target population with 12 or fewer years of education; the subset of those with 12 or fewer years who are paid by the hour; those in the target population with more than 12 years of education; and the subset of those who are paid by the hour.

Regardless of type of remuneration, workers with less education are much more likely to get very short notice of their schedules (one week or less). Greater education shifts some hourly workers into the categories of 1-2 weeks' notice, and 4 weeks or more. Workers who have more education and who are paid by salary or something else are most likely to get at least four weeks of notice.

**Figure 18. Advance Notice by Education and Type of Remuneration**  
(GSS, civilian employees ages 18-65)



Source: author's calculations.

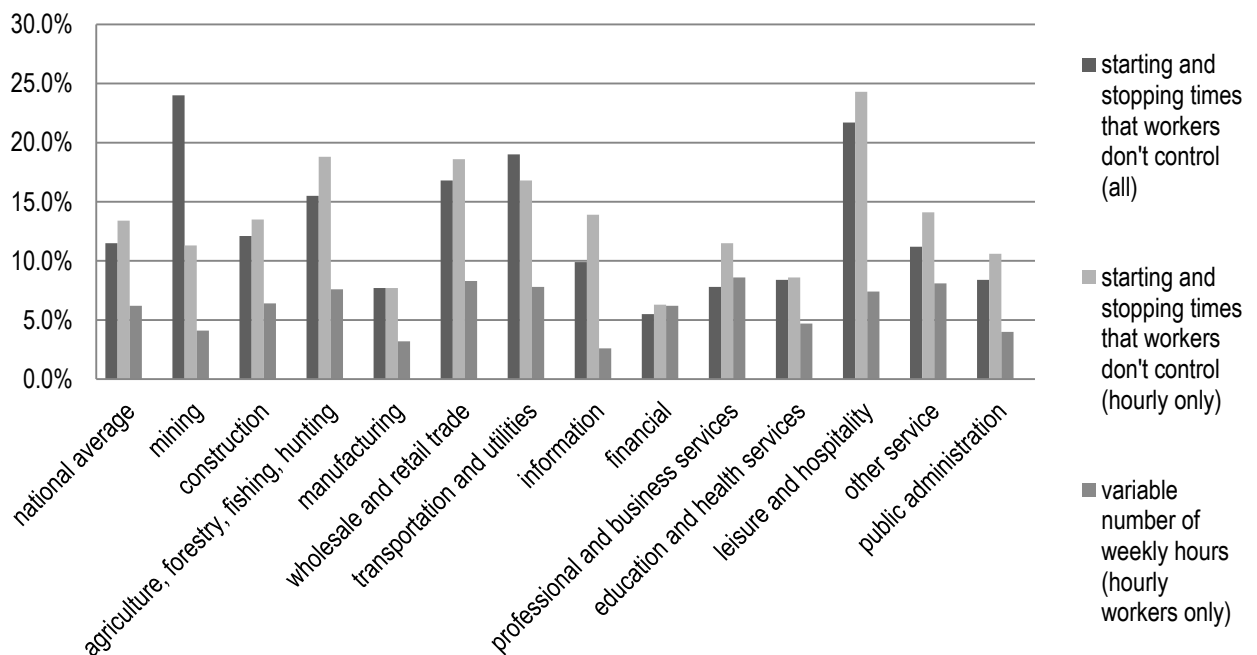
To the extent that we know about job tenure, or seniority on the job, it seems to be negatively related to just-in-time scheduling practices. In a small but detailed study of hourly workers in four different industries (hospitality, retail, transportation, and financial services), recent hires were at greatest risk in all these industries for variable schedules, last minute-changes to schedules, and the least desirable shifts. (Lambert, 2008) The Québec retail employees studied by Messing et al (2014) regarded seniority as the fairest way of allocating hours. Union contracts, such as The United Food and Commercial Workers International Union 21 grocery workers contract with Safeway, Fred Meyer, QFC and Albertsons stores in King and Snohomish counties (Washington state), often require that additional hours that become available be offered first to senior employees (Vigdor et al, 2016).

## 5. Firm and industry characteristics

### 5.1 Industry

McCrate (2012) estimated the distribution of unstable work schedules among American civilian employees ages 18-65 by industry, using the 2004 WSS. Figure 19 supplements this information with estimates of both starting and stopping time instability and total hours variability for hourly workers only. (Again, I favor the older data because of its comprehensiveness with respect to age and its large sample size. Note that the unit of observation is the worker, not the firm.) For all these measures, schedule instability was quite pronounced for workers in leisure and hospitality, followed by transportation and utilities, wholesale and retail trade, and agriculture, forestry, fishing and hunting. Mining (a relatively small industry in the U.S., with a small sample here) had a high incidence of starting and stopping time instability for the larger group of workers, but much lower levels for hourly workers in both starting and stopping time instability, and total hours instability.

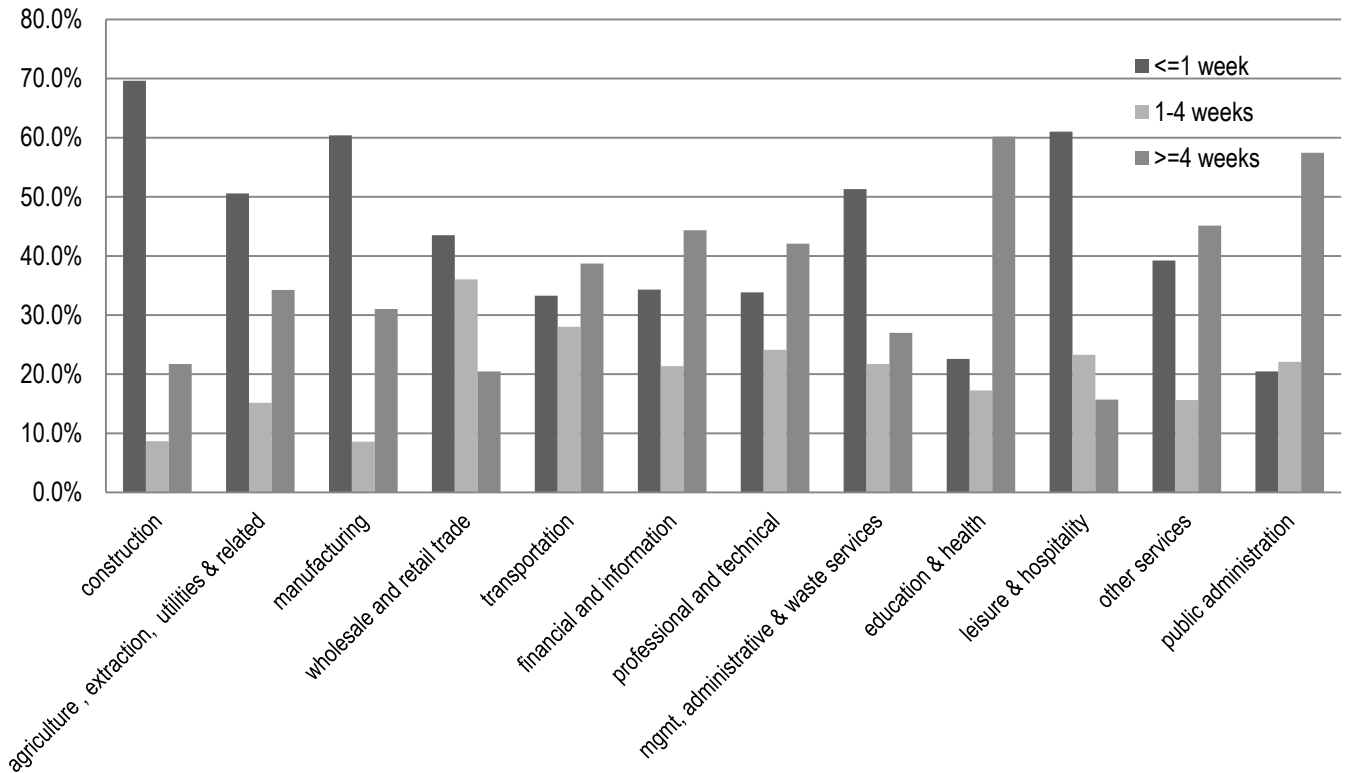
**Figure 19. Incidence of unstable schedules by industry, 2004**  
(civilian employees ages 18-65, 2004 CPS-WSS)



Source: McCrate, 2012, and author's calculations.

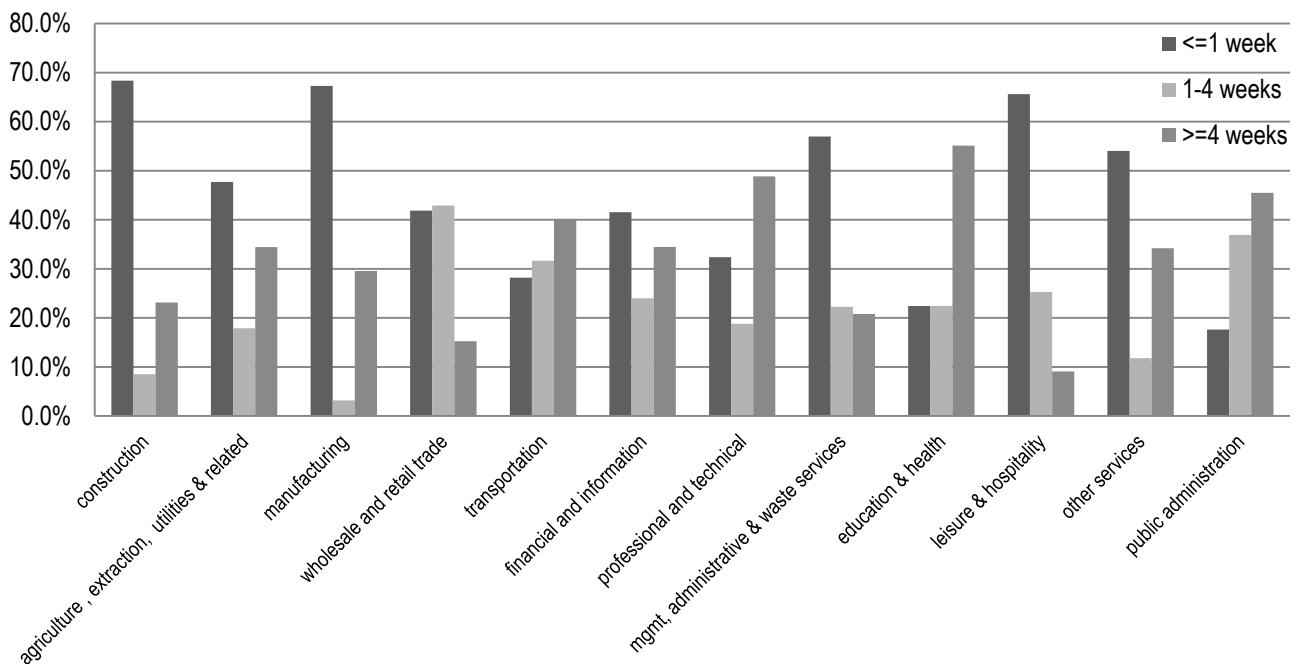
Figures 20 and 21 illustrate the extent of advance notice for all workers in the target population and just for the subset of hourly workers in the target population. Extremely short notice of working hours was most common in construction, manufacturing, and leisure and hospitality, with agriculture, and management, administrative and waste services, not far behind. For hourly workers only, construction, manufacturing, leisure and hospitality, and management, administrative and waste services had the highest incidence of short notice. The proportion of workers with very short notice increased substantially when moving from the full target population to the hourly subset of the target population (Figure 19 to Figure 20).

**Figure 20. Advance Notice by Industry**  
(GSS, 2014, civilian employees ages 18-65)



Source: author's calculations.

**Figure 21. Advance Notice by Industry**  
(GSS, 2014, civilian hourly employees ages 18-65)



Source: author's calculations.

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## 5.2 Firms

The number of firms that require unstable schedules of their hourly employees is impossible to estimate, since there is no survey of firms or establishments that includes questions on the variability of work schedules.

We also know very little about the types of firms that engage in unstable scheduling, other than industry. A study of work schedules in Seattle (Vigdor et al, 2016) found that locally owned businesses were more likely to provide short notice, use on-call scheduling, and schedule openings. The size of the firm was unrelated to these practices.

We know a little bit more about practices such as the use of part-time workers that are correlated with just-in-time scheduling. In a nationally representative survey of more than five hundred U.S. firms, 72% used part-time workers. Of these, 62% of these did so to target labor at hours of peak demand, and 49% did so to secure a labor supply during hours when full-time workers ordinarily did not work. Only 21% used part-time workers to avoid paying benefits that are traditionally associated with full-time work (Houseman, 2001).

There are some estimates of the extent to which firms involve their employees in the determination of work schedules (schedule control). At the establishment level, Circadian, a prominent American consulting firm that provides research to other firms on scheduling issues, developed estimates of the extent of employee involvement in scheduling. In the late 1990s, 54% of facilities surveyed said that schedules were determined with employee involvement, and schedules mandated by management prevailed at only 22% of facilities. In 2006, 45% of facilities had schedules mandated by management while only 26% of facilities allowed employees to select the schedule, and at 15% of facilities schedules were negotiated with unions (Davis and Aguirre, no date). (These figures must be interpreted with caution, however, because the fact of employee involvement does not imply anything about the proportion or type of employees so involved).

The National Study of Employers (Matos et al, 2017) has data on the proportion of firms in 2016 that offered schedule flexibility for their workers, in the sense of “schedule control” in Figure 1 of this paper. Their indicators of schedule flexibility include whether workers could:

**Table 4. Proportion of Firms Providing Schedule Control to Employees, U.S.**

Schedule Flexibility/Control Indicator	% of organizations allowing at least some employees to...	% of organizations allowing all or most employees to...
“periodically change starting and quitting times within some range of hours”	81%	32%
“change starting and quitting times on a daily basis”	42%	11%
“have choices about and control over which shifts to work”	44%	10%
“have control over paid and unpaid overtime hours”	42%	21%

Source: Matos et al, Table 1, ppp. 15-16.

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Matos et al further found that in 2016 small firms with 50-99 employees were significantly more likely to allow workers to “periodically change starting and quitting times within some range of hours” for all or most employees. There was no significant difference in the provision of schedule control/flexibility for all or most workers between the small and large firms for the other indicators in Table 4 above.

This survey has been repeated periodically since 2005. The percentage of employers allowing periodic change of starting and stopping times within a range for at least some employees rose from 68% to 79% between 2005 and 2008, but has varied within a narrow band since then. The percentage of employers allowing at least some workers to change starting and stopping times on a daily basis rose from 32% in 2008 to 42% in 2016. The percentage of employers giving at least some employees choices about and control over shifts rose from 36% in 2012 to 44% in 2016. Control over overtime for at least some employees shot up from 27% of firms in 2008 to 44% in 2012, but has remained about the same since then (Matos et al, pp. 19-20).

Finally, when employers’ representatives were asked to rate their firms about measures taken to promote flexibility for workers<sup>15</sup>, 56% said the organization encouraged their supervisors “to be supportive of employees with family needs” and to find “solutions that work for both employees and the organization”. This percentage is down from 63% in 2005. (pp. 41, 43) Fourteen percent of employers said they rewarded “those within the organization who support effective flexible work arrangements”. This proportion fell dramatically from 31% in 2005 to 11% in 2014, and rose slightly again thereafter (pp. 41, 43).

Finally, examining a multi-item scale of the extent of flexibility in employee-oriented work arrangements, Matos et al found that professional service organizations were much more likely than other industry groups to be in the top quartile of flexibility and less likely to be in the bottom quartile. Goods-producing firms and wholesale and retail trade firms were much less likely to be in the top quartile than other types of organizations. Organizations with no hourly employees were the most likely to be in the top quartile of flexibility (and none of them were in the bottom quartile). Those with more than 50% hourly employees were the least likely to be in the top quartile, while they were most likely to be in the bottom quartile.

## **6. Just-in-time schedules and total hours of work**

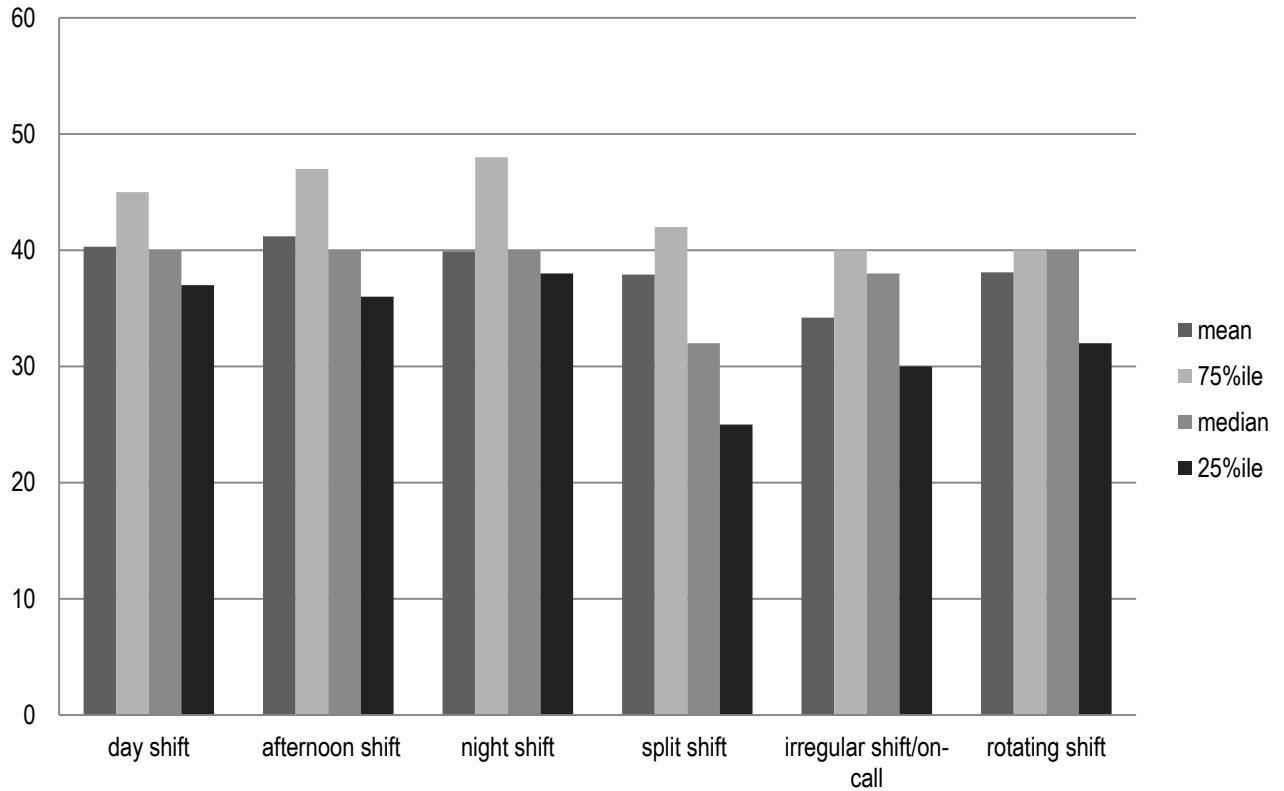
### **6.1 United States – all workers**

Just-in-time scheduling may involve part-time work, full-time, and/or overtime work (and movements between those categories). The largest and most consistently administered survey questions on total usual weekly working time in the United States are part of the Current Population Survey. However, in this survey, for respondents who volunteered that their usual total weekly hours of work vary (a response that has been recorded since 1994), the survey does not further inquire about the specific number of average or median working hours. However, it does collect enough information for Census Bureau staff to create a recode that includes the categories “hours vary, full-time” and “hours vary, part-time”. In recent years that recode has been constructed so that it adds together the hours from all jobs, thus suppressing the information on the hours of work in the job for which the hours vary. See Figure 7, above. It showed that more total hours variability was associated with full-time hours rather than part-time hours.

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<sup>15</sup> The authors acknowledge that organizational representatives tend to rate their own firm rather highly. But that does not imply that the trends over time are biased for the same firm, or that the differences between various measures for the same firm are biased.

**Figure 22. Total hours at all jobs, by schedule type**  
(2014, GSS, civilian hourly employees ages 18-65)

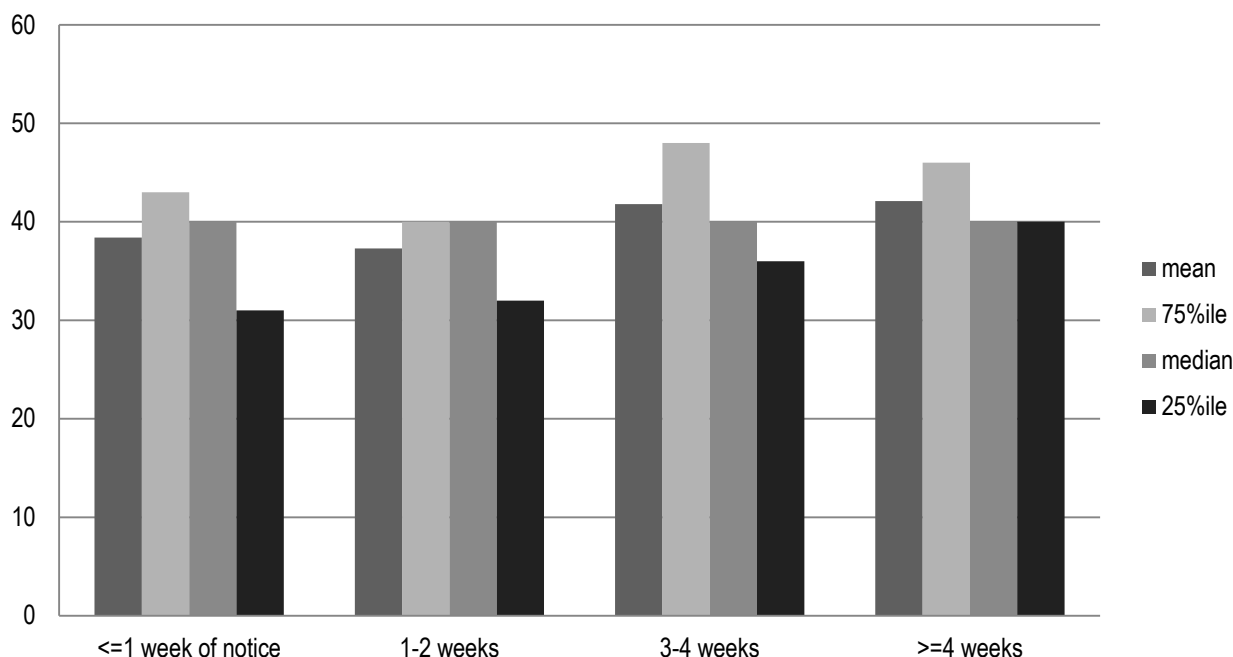


Source: Author's calculations.

Figure 22 uses GSS data on total hours of work. One should not expect a lot of variance in the average of total hours across schedule types because, first, any measure of central tendency suppresses a lot of variation. Second, respondents tend to report the conventional hours that are closest to their own actual hours (for example, someone working 42 hours tends to report 40). Third, the GSS variable on total hours sums together usual hours from all jobs, so that short hours in the main job are sometimes masked by hours from another job. (Similarly, long hours on the main job may be exaggerated by hours from other jobs).

Median hours for workers on split shifts and workers on irregular/on call shifts are lower than usual hours for workers on other schedule types. The 75th percentile of hours is highest for day, afternoon and night shifts, although as I pointed out in section 3.1 the usual time of day does not have any clear implications for the regularity of hours. The 25th percentile of hours is especially low for workers on split shifts and irregular or on-call shifts.

**Figure 23. Total hours at all jobs, by advance notice**  
(GSS, 2014, civilian hourly employees ages 18-65)



Source: author's calculations.

Figure 23 shows total hours at all jobs by the extent of advance notice for hourly employees. Median hours are equal to 40 across the categories of advance notice, probably reflecting both the frequency of this arrangement and the tendency of people to round when reporting hours. However, the 25th percentile of hours is smallest for those with the least advance notice, and rises monotonically as the amount of advance notice increases. Both the median and the 25th percentile are equal to 40 hours for people who have at least four weeks of advance notice.

## 6.2 United States – young workers

Lambert, Fugiel and Henly (2014) reported on the usual weekly hours of the young workers in the NLSY97 in 2011, along with the instability ratio (the ratio of (maximum – minimum hours)/usual total hours per week).

**Table 5. Variability in Total Hours Per Week by Full-Time, Part-Time Status and Hourly, Non-Hourly Status**

	% with any variability	instability ratio (all)	instability ratio (if hours vary)	mean usual weekly hours in previous month
All hourly employees	74%	.37	.49	37
All non-hourly employees	74%	.32	.43	46
Full-time hourly employees	70%	.22	.32	43
Full-time non-hourly employees	73%	.24	.33	46
Part-time hourly employees	83%	.72	.87	22
Part-time non-hourly employees	79%	.75	.95	20

Source: Lambert, Fugiel and Henly, 2014, p. 11. The job in question is the one held by the respondent for the longest time.



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Furthermore, work hour fluctuations were ubiquitous across the distribution of total hours, except among young workers usually working 40-44 hours. Those whose usual hours were below 40-44 tended to have hours that fluctuated by similar magnitudes above and below usual hours. Those who worked more than 40-44 hours were more likely to experience very large fluctuations below usual hours (Lambert, Fugiel and Henly, Graphs 1 and 2, p. 9).

### 6.3 Canada

McCrate, Lambert and Henly (2017) report total weekly hours for Canadian workers paid by the hour in the 2003 Workplace and Employee Survey. (For workers who usually worked the same number of hours each week, they used usual hours; for workers who usually didn't work the same number of hours, they used the average.) We found a strong concentration of unstable total hours among those working below 35 hours per week. But this survey also shows that hourly employees ages 18-65 who usually work overtime have very short advance notice of their overtime schedules; 58% of them learn of their overtime schedule a day or less in advance (McCrate, 2016).

## 7. Case Studies

### 7.1 Retail trade

The institutional context: This first case study concerns retail trade workers in Canada and the U.S. Large retailers often operate on both sides of the U.S.-Canadian border. The U.S. and Canada to some extent share a market-oriented institutional context that is typical of English-speaking or majority English-speaking countries, giving employers wide latitude in the determination of working arrangements. Both countries have instituted some market-oriented reforms in the last 20 to 40 years. Non-union big box and on-line retailers have altered competitive conditions in both countries, pressuring management at other chains to cut wages, to hire more part-timers, and to reduce employer-sponsored benefits. Unions in both countries usually negotiate agreements at the enterprise level.<sup>16</sup> In this environment, unions have often made concessions in both countries (Carré and Tilly, 2012). Nonetheless, several differences stand out.

First, Canadian workers are more likely than American workers to be covered by collective bargaining agreements. The private sector union coverage rate was 16.1% in Canada in 2016, vs. 7.3% for the U.S. (Statistics Canada, 2017; Hirsch and Macpherson, 2017) Union coverage in retail has declined in both countries, but remains somewhat higher in Canada. It fell from 21.3% to 17.7% in Canada between 1997 and 2009, and from 15.6% to 13.6% over the same period in the U.S. (Carré and Tilly, 2012, pp. 8 and 16) As of 2016, the combined wholesale and retail coverage rate was 12.3% in Canada, while the retail coverage rate was 5.0% in the U.S. (Statistics Canada, 2017; Hirsch and Macpherson, 2017) The cross-border differential in grocery stores has been and remains especially striking: as of 2004, 22.4% of American grocery store workers were covered, and 41.6% of their Canadian counterparts were covered (Carré and

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<sup>16</sup> Usually in Canada, each collective agreement is local, that is firm-based and signed by the direct employer. Depending on the chain, this can be the banner corporation for some stores (e.g., several stores that are run by head office where the collective agreement will cover several sites), while others are run independently with a distinct employer but under the banner (the collective agreement thus only covers that site). Also, depending on the union, the collective bargaining will be coordinated with the local unions affiliated with a single union and the employers under a banner so that the collective agreements at different sites will largely contain the same clauses (personal communication, Stéphanie Bernstein, 1 May 2017).

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Tilly, 2012, pp. 8 and 16). As of 2016, grocery store coverage in the U.S. was 15.7% (Hirsch and Macpherson, 2017), while union density in grocery stores was 46% in Canada (Derek Johnstone, UFCW-Canada, personal email, 2017).

A second difference is that Canadian provision of health and social services (especially in Québec) often resembles that of Western Europe rather than that of the U.S. In particular, Canada guarantees universal public health insurance for all its citizens, and some paid time off, including parental leave and heavily subsidized public childcare. The United States does not. These entitlements in theory have three different effects on the kinds of jobs offered. First, compared to the U.S., the Canadian health care entitlement greatly reduces firms' quasi-fixed labor costs, and thus their incentive to hire full-time workers. (Lambert 2008) To the extent that American employers are expected to provide benefits for their full-time workers (which has been falling over time), there are stronger incentives to avoid the cost of benefits such as health insurance by using more part-time workers. (These incentives are in addition to the greater ease of targeting part-timers' hours at periods of greatest demand, which is an advantage for employers in both countries.) Second, universal health insurance enhances workers' fallback position in the event of job loss, strengthening their bargaining power on the job. In the U.S., such benefits depend to a much greater extent on the specific political jurisdiction and the firm. Third, affordable, reliable high quality childcare increases mothers' availability to employers during times when childcare centers are open; they will be able to work a greater variety of times with the likely result, as I argue later, that they will be able to get more hours.

A third difference is that Canadian labor regulation mostly takes place at the provincial level (except for the federal jurisdiction – roughly, jobs in inter-provincial trade and the civil service), while more American labor regulation – especially, overtime and minimum wage law under the Fair Labor Standards Act of 1938 – takes place at the national level. However, more than half of states currently mandate minimum wages higher than the federal level. Also some important provisions concerning unions vary greatly across states (in particular, so-called “right to work” legislation<sup>17</sup>). The failure of Congress to pass more progressive labor legislation has recently led to a number of successful initiatives at the state and local level, especially to raise state and local minimum wages, but also increasingly to provide paid parental leave, to mandate paid sick days, and most recently, in a handful of jurisdictions, to regulate work schedules.

Industry and firm characteristics: Retail trade in both countries is characterized by both long and weekend hours of operation. In retail, extended hours of operation tend to generate a lot of short shifts with variable and unpredictable hours. Perhaps as a result, while hours of operation have become longer, average hours of work in groceries have declined in both the U.S. and Canada (gradually in Canada, sharply in the U.S. after 2003 – this may be related to a large 2003 southern California grocery strike). (Carré and Tilly, 2012) As of 2014, about one-third of U.S. workers in retail trade worked part-time. (Bureau of Labor Statistics, no date) The decline in hours reflects “retailers’ zealous pursuit of cost reduction strategies in the context of weakening worker-protection institutions, notably retail unions...Retailers use the full-time/part-time distinction as a legally and normatively acceptable way to exclude a large group of employees from the standard wage level and full benefit package.” (Carré and Tilly, 2012, pp. 24-5) In both the U.S. and Canada, many retailers control labor costs by using part-timers and by guaranteeing a relatively low number of hours for full-timers (25 to 35 per week), that can be flexed up without triggering the payment of overtime premia.

Within this context, workers’ arrangements for work schedules vary greatly in Canada. The non-union big box sector has had great influence. In 2007, Wal-Mart, the world’s biggest retailer, introduced new computer software that moved “workers from predictable shifts to a system that

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<sup>17</sup> The 1947 Taft–Hartley amendments to the National Labor Relations Act (1935) permitted states to pass laws that prohibit unions from requiring a worker to pay dues, even when the worker is covered by a union-negotiated collective bargaining agreement and receives the same benefits as someone who does pay dues or agency fees. In the last several years, “right to work” legislation has penetrated northern states for the first time in history.

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follows the number of customers in stores through the day and week.” (Wall Street Journal, 3 January 2007). About five years ago, the workers at one Wal-Mart store in Québec voted for a union. Nelson Lichtenstein, director of the Center for the Study of Work, Labor and Democracy and a professor of history at the University of California-Santa Barbara, observed, “When workers voted in a union in Québec and [Wal-Mart was] actually forced to negotiate with a union, the union did not ask for wage or benefits increases. They simply wanted to give workers predictable shifts—to make it possible for workers to have lives. Instead of doing this, Walmart shut the store down. Walmart was saying, ‘We cannot operate when workers are sure of a regular shift.’” (Uetrict, 2012) While it is possible that Wal-Mart would not have been willing to bargain with a union over anything, scheduling was clearly a major point of contention.

The non-union big box sector has only reformed its extreme scheduling practices recently, after much bad publicity and the onset of greater strength in the American labor market following the 2008 financial crisis. In 2016, Wal-Mart began to offer “fixed shifts” in some stores to workers with the most seniority, guaranteeing the same weekly times of work for up to six months (Reuters, 2016) or a year (DePillis, 2016). At the same time they offered “flex shifts” for other workers, which allowed the workers to build their own schedules from the remaining hours, in modules of approximately two and a half weeks. (DePillis, 2016) These workers will not be required to be available on short notice (Reuters, 2016). While increasing stability somewhat for more senior workers, the new system apparently does not aim to increase the total hours available to any workers (Reuters, 2016), so that workers need to stretch their availability to get more hours.

Union success at taming work schedule volatility has varied across unionized retail firms in Canada. I will discuss two very different retail contracts in Canada. First, Messing, et al (2014) investigated a large retail chain in Québec with the cooperation and participation of its management and union. The sampled locations were one non-union and six union locations; some were operated as franchises and some were directly managed by the parent corporation. Most of the stores were open seven days a week, including evenings. There were generally three categories of workers: full time, part time with limited availability (usually students), and part time (up to 39 hours/week) with unlimited availability to work. Part-time workers with unlimited availability were not allowed to limit their shifts for any reason, including family needs. They were assigned hours based on recognized skills, seniority, department and job type. Department managers sometimes informally considered these workers’ personal needs, but the workers were reluctant to refuse last-minute schedule changes because they might later not get permission to attend parent-teacher conferences or to participate in sporting events, and co-workers noticed any favoritism.

Québec private sector workers are more likely to be represented by unions than the typical Canadian private sector worker, (23.6% vs. 16.1%), and retail and wholesale trade workers are also more likely to be represented by unions in Québec (18.1% vs. 12.3%). (Statistics Canada, 2017) Québec labor law imposed some limits on this employer, although mostly these served to limit excessive hours of work, rather than provide more hours. Workers could refuse to work more than four hours beyond their normal work schedule. The normal work day was not supposed to exceed 14 hours and the work week was not supposed to exceed 50 hours. The law required an unpaid 30-minute rest break after 5 consecutive hours of work. There was no statutory provision concerning advance notice of work times, or for establishing a minimum time between shifts. The law required that workers receive at least 32 consecutive hours of leave per week. One of the rare provisions to protect workers from short hours in provincial law stipulated that workers be paid for at least three hours for each period worked. (This floor is an example of what Americans call “show-up pay” or “reporting pay”, which is included in the labor law of all Canadian provinces.) Some collective agreements imposed somewhat more demanding conditions on the employer, for example requiring that one Sunday in three be free (Messing, et al, 2014).

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Since most regulations were oriented toward preventing very long hours of work, not toward remedying very short or erratic hours, schedules were often highly unpredictable and numerous workers complained of inadequate hours. Although managers supposedly posted the work schedule two weeks in advance, in practice they usually posted it only two or three days in advance. Most of the workers surveyed (almost 70%) had worked at least one evening after 7 PM, and 40% had worked at least two evenings during the reference week. A large majority had worked the previous weekend (82% of women and 87% of men) and half had worked both weekend days. Students were more likely to have worked on weekends. The time of day when the employee had started work varied over the week by an average of four hours and a maximum of thirteen hours. Thirty percent of respondents wanted more hours and only five percent wanted fewer. Unsurprisingly, part-time workers, as well as men with family responsibilities, were more likely to want more hours. Furthermore, 24% of the respondents felt that the scheduling was unfair (Messing, et al, 2014).

One third of the respondents reported that it was difficult to reconcile work and personal life. A multiple logistic regression excluding students showed that, among women, difficulty with the work-life interface was associated with family responsibilities and with an index of work schedule instability. Among men, only the work schedule index was associated with difficulty with work-life balance. Not surprisingly, under these conditions more than two-thirds of the workers surveyed reported having no family responsibilities. Only 9% had a child under 13 (Messing, et al, 2014).

Also not surprisingly, the labor force was not very committed to the employer. A majority of workers surveyed had considered changing jobs. Thirty-six percent of workers had less than a year of job tenure, more than double the proportion for the Québec working population. The employer reported average turnover of 80% of workers/year (Messing, et al, 2014).

Local 1006A of the United Food and Commercial Workers (UFCW) in Ontario has negotiated quite different scheduling provisions for hourly and part-time workers with the Ontario grocery chain Loblaws and Loblaws Real Canadian Superstores, culminating in the 2015 contract.<sup>18</sup> Although the Canadian grocery industry is changing rapidly, with increasing penetration of non-union stores such as Wal-Mart, Costco, and Shoppers Drug Mart, Loblaws remains the largest private sector employer in Canada. The stores are open seven days per week, at least until 10:00 or 11:00 p.m. There are some 24-hour superstores, and there are more extensive hours of operation during holidays.

Local 1006A's contract covers more than 10,000 Loblaws part-time workers in Ontario, approximately half of whom are women. Three-fifths of the workers are below the age of 35, but all ages are represented, including a few people in their 80's. Numerous workers in the bargaining unit have other significant commitments: families, school, and second jobs.

Unstable and unpredictable schedules were ubiquitous in the bargaining unit before the union made a concerted effort to change them. Usually part-time employees received just three days of advance notice concerning their schedules. (Mojtehhedzadeh 2015(d)) In addition, the practice of "overhiring" was common. Often, when employers must cover a broad range of hours of operation with part-time employees, they hire numerous part-time workers who collectively can fill most of the gaps in the schedule, although this makes it less likely that any of the workers will be able to get as many hours as they want. (See more discussion of the same topic below, in the section on American retail scheduling practices).

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<sup>18</sup> My discussion of the Loblaws-UFCW scheduling provisions relies on conversations and emails with Pearl Sawyer, Executive Vice President of UFCW Canada Local 1006A and the lead negotiator for the 2015 agreement; the 2015 contract itself (United Food and Commercial Workers Canada Local 1006A and Loblaws Supermarkets Limited, 2015); and Mojtehhedzadeh 2015(d).

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Over the years there were many conflicts between the union and management over scheduling issues. Under the 2010 contract, with the incorporation of another grocery banner into the Loblaws banner, availability requirements changed for the workers in those stores that converted to this banner. The union took the position that, under a letter of understanding, individual workers had the option of keeping their prior individual accommodations (e.g., for family care or second jobs). Because the firm did not believe the letter of understanding applied in some cases where the union believed it did, the union secured a court injunction that was in force 2011-2016.

The 2015 contract, building on changes in earlier contracts, changed many of the scheduling practices at Loblaws. Management and the union took some preparatory steps commencing in 2013, when management approached the union requesting changes to schedules, in part because of a large number of grievances concerning schedules. Both sides agreed to some pilot studies in selected stores.

Several of the pilot studies subsequently undertaken addressed the question of advance notice. In one of them, the company and union started with posting three or four month of schedules at a time in some stores. In this pilot, schedules could vary in each week of a four-week period, but the times repeated in four-week blocks (except in weeks with holidays). Both union members and management had a number of difficulties with this kind of advance notice. The union and management tested several other advance notice pilots.

The 2015 contract included a letter of understanding committing the employer and union to a pilot study of a two-week rolling schedule. In addition, the company and union agreed that they may run additional pilots in the future. (United Food and Commercial Workers Canada Local 1006A and Loblaws Supermarkets Limited, 2015) Under the terms of the pilot which was eventually deemed best and rolled out for the entire part-time bargaining unit, workers get a minimum of ten days of advance notice for each week of work: schedules are posted on Thursday for the week beginning two Sundays hence. (United Food and Commercial Workers Local 1006A and Loblaws Supermarkets Limited, 2015) Previously, part-time employees had received just 3 days of advance notice. (Mojtehhedzadeh 2015(d)). The contract permits changes to posted hours for legitimate reasons 24 hours in advance, where these changes are to be made primarily to the schedules of the least senior employees. Workers are not required to be on call for extremely short-notice work. Under the terms of the contract, managers call workers in order of seniority and offer the hours, but workers have the right to refuse them.

Building on changes in previous contracts, the 2015 contract also specified minimum availability for different categories of part-time employees. The availability requirements for day (or evening) workers are basically all day (or all evening) Friday, Saturday and Sunday open to close, plus one additional weekday (evening) for day (evening) employees. Night employees must be available Thursday through Saturday, plus one additional night Sunday through Wednesday. Employees may change their availability with two weeks' notice to the employer (United Food and Commercial Workers Local 1006A and Loblaws Supermarkets Limited, 2015).

An additional less formal agreement provides more flexibility for the worker. Employees who meet the minimum availability requirements may request a limit to weekly hours, and management agreed informally to work with the employees involved on a case-by-case basis, in part to reduce turnover. Additionally the contract states that workers who request temporary schedule changes that reduce their availability below the required level may be accommodated according to the reason for the request, the duration of the request, and the reasonable scheduling needs of the business (United Food and Commercial Workers Canada Local 1006A and Loblaws Supermarkets Limited, 2015).

So far these informal provisions have worked well in the implementation of the 2015 contract. Informally, medical and childcare accommodations are frequently worked out. Workers always

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have the option of initiating the grievance process if they and the union feel that the company did not provide an adequate accommodation consistent with contract language (Pearl Sawyer, email, 2017).

Perhaps the biggest scheduling breakthrough in the 2010 and 2015 contracts is the guarantee of a minimum number of total weekly hours for the most senior part-time workers in the bargaining unit. Under the 2015 contract, which built on the 2010 contract, management agreed to minimum hours in return for somewhat greater availability beyond that specified in the previous paragraphs. In departments with at least 10 part-time employees, and in weeks without statutory holidays, the most senior 25% of the part-timers are eligible for a guarantee of 28 hours per week provided that they meet minimum availability as stipulated above, plus one additional day, evening, or night of availability, for day/evening/night workers, respectively. (I call this “threshold” availability.) The next most senior 15% of employees in the department are eligible for a guarantee of 24 hours if they provide the threshold level of availability, and the next most senior 10% of employees are eligible for a guarantee of 20 hours if they provide threshold availability. In smaller departments, the proportion of employees with guaranteed hours are lower, but the most senior part-time workers in all departments are eligible for a guarantee of 28 hours if they provide threshold availability. (United Food and Commercial Workers Local 1006A and Loblaws Supermarkets Limited, 2015) Although all of the most senior workers meeting the contractual conditions are eligible for hours guarantees, not everyone takes advantage of them, due to other commitments. And not everyone is scheduled for every period in which they are required to be available (Pearl Sawyer, email, 2017).

Since the new contractual provisions regarding advance notice and guaranteed hours have been in effect, there have been two other significant consequences. First, the practice of management making changes to posted schedules has virtually ended. The great majority of changes to posted schedules are now initiated by employees for sick days and so forth. Second, the practice of overhiring has virtually ended. Under the minimum hours guarantees, employers must offer a lot of hours to incumbent workers, so it discourages the practice of hiring many part-timers who can potentially fill the employer’s scheduling gaps while reducing the average hours of everyone (despite the known preferences of many workers for more hours) (Pearl Sawyer, email, 2017).

Other provisions of the contract and of scheduling practices at Loblaws are also noteworthy. First, while the Ontario Employment Standards Act requires that workers be paid for three hours if they are required to report to work then sent home early,<sup>19</sup> most UFCW contracts in Ontario require that workers receive four hours of pay for the same circumstances (and have done so for many years). Second, employees are contractually guaranteed a minimum of ten hours between the end of a regularly scheduled shift and the beginning of the next regularly scheduled shift, unless they, as well as management, agree to less time off in between shifts. (United Food and Commercial Workers Canada Local 1006A and Loblaws Supermarkets Limited, 2015) Third, workers’ personnel files typically do not include information on workers’ observance or violation of scheduling mandates. If a particular worker’s absences begin to seem suspicious (e.g., if someone always calls in sick for the Friday evening shift), management will call the worker in for a “fireside chat”, but the problem will not be recorded in the employment file (Pearl Sawyer, phone conversation, 2017).

The company and the union also have a relationship building program. Union committees meet with store-level management regularly – more in the stores having more difficulties – to share information and perspectives about changing operational issues. Management listens to the union’s input and also at times to the Ontario Secretary of Labor. The store’s union representative attends these meetings, and the union posts minutes for all members to see (Pearl Sawyer, phone conversation, 2017).

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<sup>19</sup> In Ontario this is known as the “three-hour rule” and in the United States it is called the “reporting pay” or “show-up pay” requirement.

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The Local 1006A-Loblaws case illustrates that it is possible to improve work schedules for hourly workers when unions are strong, when the courts back them up (as in the 2011-2016 injunction), and when unions and management are willing to experiment to see what works for both parties.

Local 1006A has also contributed to Ontario's blue ribbon review panel for reviewing the 1995 Labour Relations Act and the 2000 Employment Standards Act. In February 2015, the Ontario Minister of Labor initiated the Changing Workplaces Review to consider what kinds of changes may be appropriate to these laws considering the evolving nature of the workforce, the workplace, and the overall economy. Changes in the prevalence and characteristics of standard employment relationships were a primary concern. The report of the panel explicitly recognized that unstable scheduling practices have been a "key contributing factor in making work precarious". (Mitchell and Murray, 2017, p. 17) The panel recommended a sector-specific approach, prioritizing the retail and fast food sectors for review. Under this proposal, the government would convene a tripartite sectoral committee with representatives of government, employers, and workers to investigate the specific industry and develop proposals for reform. The recommendations of a sectoral committee typically command a great deal of legitimacy because of their tripartite nature.

Turning to the United States, I discuss several studies of retail south of the border. The first, by Stephanie Luce and Naoki Fujita (2012) surveyed 436 workers in retail jobs in New York City in 2011, and reported on in-depth conversations with some of these workers. Their respondents worked in a variety of non-union retail establishments with at least 100 employees per store, from high-end department stores to budget retailers. Luce and Fujita document low wages and benefits, some very difficult working conditions, and frequent labor law violations. Another study, by Henly and Lambert, 2005, and Lambert and Henly, 2010, does not discuss labor law violations, but features a single large national retailer with some commitment to work-life balance. Despite the difference foci of these studies, both find high utilization by firms of just-in-time work schedules. A third study, by Zeynep Ton, explores how some (non-union) retailers have succeeded with better pay, schedules, and other working conditions for their front-line sales workers.

Only 29% of the workers surveyed by Luce and Fujita got health insurance from their retail job (and only 9% of the part-time workers); 25% had no health insurance from any source. The median wage was \$10/hour for full-time workers and \$9.25 for part-timers. Nearly three-quarters of the full-time workers got paid sick days and three-fourths got other paid time off, but only one-fourth of the part-time workers did.

Schedules were highly erratic and underemployment was common, as reported in Table 6, with the incidence of these demand-oriented flexible scheduling practices highest for blacks and especially Latinos.

**Table 6. Scheduling Practices in New York City Retail Trade**

	rarely or never	sometimes	often or always
number of hours worked varies from week to week	29%	32%	39%
scheduled for fewer hours in a week than worker would like	57%	25%	24%
have to be available for "call-in" or unexpected shifts	56%	23%	20%
manager reduces or changes hours without worker's consent	51%	16%	26%

Source: Luce and Fujita, 2012.

Moreover, only thirty percent of workers in the study learned of their schedules more than a week ahead of time, and the rest got a week or less of advance notice, with about a fifth getting only three days' notice (Luce and Fujita, 2012).

Statutory protection of these workers was weak, and employers often violated state and federal wage and hours laws. Flexibility for the employer was sometimes extreme. Thirty-six percent of the respondents said they sometimes worked more than 40 hours a week, including 30 percent of those officially hired as part-time workers. Almost 30 percent of those who worked more than 40 hours a week said they did not get overtime wage premia at these times, in violation of federal law. Part-time workers were even less likely than full-time workers to receive overtime pay. Over a third of retail workers report that they sometimes worked more than 10 hours a day, but only 41 percent got paid an extra hour as mandated by New York State law. Fifteen percent of workers said they worked "off the clock" at least sometimes, also in violation of federal law. Similarly, 73 percent reported that if they were sent home before four hours, they were never paid for a full four hour shift, as mandated by New York State law (Luce and Fujita, 2012). (New York is one of the few American jurisdictions to require reporting pay).

The University of Chicago Work Scheduling Study (Henly and Lambert, 2005; Lambert and Henly, 2010) was a comprehensive case study of a single large national women's retail apparel firm in 2007-08. (Unless otherwise noted, the discussion of this firm is based on these two papers.) The researchers examined the firm's administrative data on turnover and retention, as well as payroll and scheduling data from about 150 stores. They also conducted interviews and surveys of store employees including managers and front-line workers in sales. The hourly employees who participated in the survey included assistant managers and sales associates, about two-thirds of whom worked part-time.

This study is revealing because company culture genuinely promoted work-life balance through store-level managerial discretion, but always within a context of lean staffing dictated at higher corporate levels. As a result, most employees felt positively about working for the firm, while many experienced significant hardship through erratic schedules and low earnings, contributing to reasonably high retention among some employees but high turnover among others, especially the part-time workers.

The typical store had a small and entirely female staff. The hourly workforce was diverse in terms of racial and ethnic composition, age, education, and family responsibilities. Almost 60 percent of the sales staff in surveyed stores were non-Hispanic white, more than a quarter were black, about ten percent were Hispanic, and less than 3 percent were Asian, American Indian, Hawaiian Pacific, or multiracial. The average age of staff was 42 years, but the variance was high. More than one-third was at least 50 years old, and one-fifth was between 18 and 24. Half



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of the surveyed employees had a high school education or less, a quarter had an associate's degree, and the final quarter had a bachelor's degree or higher.

Many employees had responsibilities to provide financial support and direct personal care for family members. One-fifth of employees had a child under the age of 18. About one out of seven were regularly caring for an elderly, disabled, or ill adult. Most of the employees needed the income from the job. Less than half had a domestic partner with whom they shared income and expenses. About half of employees' households also received public assistance such as food stamps or Social Security, or money from family or friends. Even so, one-fourth of employees reported difficulty living on their total household income, and two-fifths agreed or strongly agreed that their household income varied a lot from month to month.

Upper-level management encouraged store managers to be both fair and flexible when scheduling their sales staff. A solid majority of both part-timers and full-timers agreed that the company took their interests into account when making decisions that affected them, including scheduling decisions. Majorities also agreed that their manager actually did accommodate family and personal needs by helping workers make up hours missed, or allowing them to adjust starting and ending times. The great majority of employees expressed some commitment to their employer, their coworkers, and their customers. At least two-thirds of both full-time and part-time employees said they did not frequently think about leaving the company, and that they were not actively looking for another job.

The actual average tenure of hourly staff across the stores examined in the study was close to 3 years; about one-fifth had been with the company for over 5 years. But two-fifths of hourly employees had been with the company less than a year. Most of the relatively long term, full time workers were probably not discouraged workers, because about two-thirds of full-time employees also reported that it would take a lot for them to leave the company. However, part-time employees were more ambivalent about their future with the firm; only about sixty percent agreed that it would take a lot for them to leave the company. A similar disparity between the full-time and part-time workforce appeared in actual turnover rates. While the majority of the workforce stayed the same month to month, a minority of employees turned over rapidly, resulting in a 107% cumulative turnover rate among part-time sales staff in 2007, compared to a 74% cumulative turnover rate among full-time employees.<sup>20</sup>

The reasons for turnover within this company (a company that in some ways really did encourage work-life balance) become more apparent when examining company policies about sales targets and labor costs. Managers were responsible for retaining productive workers and providing good customer service, but also for meeting sales targets and controlling costs, under difficult circumstances. Higher-level management allocated each store's hours with little advance notice to store managers; a majority of managers said they received monthly hours just one week before the start of the month. Most managers, in turn, posted weekly work schedules less than one week before the start of the work week. Managers furthermore did not get a lot of hours to distribute to their workers, especially during lean periods. The authors estimated that during weeks with the least hours allocated to store managers, the majority of these managers had, on average, 10 to 15 hours to distribute per part-time employee.

Given thin staffing margins, managers often made changes to the posted schedule when there were unexpected business or employee contingencies. A majority of managers reported that changes to posted schedules were common, with changes made weekly (14 percent) or at least a few times a month (39 percent). Worker-initiated changes were quite common, as workers

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<sup>20</sup> The authors calculated annual turnover by adding up turnover from month to month across a year. Monthly turnover in a particular location equaled the number of workers who left their jobs there in a particular month divided by the number of jobs in that store. For example, if a store has ten employees and two of them leave during the month, then the monthly turnover rate is 20 percent (2/10). Adding up monthly turnover across a year provides a measure of *annual cumulative turnover*.

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struggled with the schedules, and coordinated with other workers to switch times, or to cover their shift for them. Most managers encouraged this, provided workers cleared the arrangements with them. When managers needed to decrease hours at the last minute for whatever reason, more than 70% sometimes or often sent associates home early. Less frequently, managers called workers to inform them of a schedule change. Managers sometimes used similar strategies when the volume of customers required additional hours: more than 70% of managers sometimes or often asked associates to extend their shifts, and/or called associates to ask them to work additional hours. But, in addition, almost three-quarters of managers, who were salaried, said they at least sometimes worked the additional hours themselves, often to avoid exceeding their allocated hours.

In this retail chain, many store-level managers tried to be flexible for their workers, and approximately one-half of full-time and part-time employees reported having at least some input into the days they work, their starting and stopping times, and the total number of hours of work, compared to between one-fifth and one-third reporting no input. But most managers did not feel supported when they tried to be flexible for their employees. Instead, operating on thin staffing margins established at a higher corporate level, salaried managers sometimes absorbed the scheduling challenges from changing business conditions, and from employee requests for flexibility, by doing more work themselves.

Because the schedules were so variable, and because managers themselves were workers of last resort, managers preferred to hire sales staff who were available to work a wide variety of days and hours. Nearly all managers (94%) agreed that they tried to hire sales staff with extensive availability in their schedule.<sup>21</sup> Furthermore, the demands from above for flexibility in a context of lean staffing incentivized store managers to maintain large rosters of employees who were potentially available to work various shifts. Two-thirds of the managers agreed that “I like to keep my sales associate staff on the LARGE side so that I have several associates I can tap to work when needed.” This in turn contributed to less working time and less income per worker. Only one-third of store managers chose the statement, “I like to keep my sales associate staff on the SMALL side to help ensure that workers get hours” (Lambert and Henly, 2010, p. 17).

The consequences for employees included extreme unpredictability. Over three-fourths of both part-time and full-time employees reported one week or less advance notice of the official schedule. Almost one in five reported three or fewer days’ notice. Furthermore, forty-five percent of both full- and part-time employees agreed “last-minute adjustments are often made to your work schedule during the workweek”.

Unpredictability in retail schedules in turn leads to a great deal of work-life conflict for women employees in retail jobs. In another study of the same retailer by the same authors (2014), unpredictability in this chain (measured in several ways) was positively associated with work-life conflict and stress, controlling for other dimensions of nonstandard work hours in a multivariate context.

Moreover, managers’ corporate-oriented flexibility strategies often resulted in insufficient hours for their sales staff. Overall, 27 percent of full-time employees and 45 percent of part-time employees said they wanted to work more hours at the company. The great majority of these (85%) said they could not work more hours because their store manager did not have additional hours to offer them. Workers could get more hours by competing with co-workers to sell more, and to provide greater availability to work over a variety of days and times. The great majority of managers rationed hours to workers on the basis of individual associates’ sales, reliability, and availability (Henly and Lambert, 2015; Lambert and Henly, 2012).

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<sup>21</sup> In a case study of four different industries, Lambert (2008) found that “open availability” was a critical hiring criterion, with firms often expecting workers to be available at “virtually any time of the day or night”. (p. 1217)

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Economic theory predicts compensating differentials – higher wages, benefits, or other job perquisites to compensate for undesirable job characteristics. If workers were compensated more for the difficult schedules, the premium was often not enough to prevent economic hardship. A quarter of the retail sales associates in the survey sample reported difficulty living on their household income and only a third reported saving money.<sup>22</sup>

Low wages and difficult schedules contributed to turnover. The most frequent reason cited by managers (nearly three-fourths of them) for employee quits was the wage. Almost two thirds of managers reported that at least one sales associate left because she wanted a full-time position, and more than half reported that at least one associate left because she had not been scheduled for enough hours. In addition to wages and hours, more than two fifths of managers reported that they had lost at least one employee because she wanted a job with health insurance. While compensation was the most commonly cited reason for turnover, input into the specific timing of work was at least somewhat important to retention (one third of managers rated it as very important; more than half rated it as somewhat important).

This case study documented that some managerial practices could reduce work-life conflict and turnover. First, informal negotiations between workers and supervisors over work schedules were negatively related to work-life conflict and stress. (Lambert and Henly, 2014) The authors emphasized that managers' discretionary efforts to consult with workers about schedules, even in a context of strong pressures for cost reduction, could mitigate some of the work-life conflict experienced by employees in unstable and unpredictable schedules.

Second, stores with managers that limited the total number of sales staff seem to have reduced turnover. After controlling for the composition of the workforce, number of staffing hours, and managers' time in the store, the authors reported that stores in which managers tried to limit headcount had lower turnover and higher retention than stores in which managers said they preferred to maintain high headcount. These findings suggest that even when faced with the same accountability pressures, managers may pursue different staffing strategies that can reduce turnover in stores and increase employees' prospects of sustained employment (Lambert and Henly, 2010).

Third, a significant minority – more than one-third of managers – said they posted two or more weeks of schedules at a time, providing employees with greater advance notice of their work schedule. On average (with a great deal of variance across stores), managers reported that weekly store hours fluctuated 19 percent from their maximum to their minimum during the year. In nearly two-thirds of stores, a minimum of 80 percent of hours remained the same week in and week out. This suggests that there is more predictability in staffing requirements than may be typically recognized, with most variation in total staffing hours occurring at the margins. Some managers utilized that to provide greater advance notice for their sales staff.

Nonetheless, store managers are greatly constrained by upper-level management. In an experiment in which managers in randomly selected retail stores in this firm tried to provide one month of schedules to their employees 7-10 days before the start of the month, while control store managers continued their usual practices (typically posting a one-week schedule five days in advance), managers in experimental stores did succeed in posting schedules earlier, but employees did not report greater schedule anticipation as a result. Part of the problem may have been pressures on store managers from higher in the corporate hierarchy to continue to make changes to the posted schedules as central management closely monitored staff-to-sales ratios every day (Lambert, Henly, Schoeny and Jarpe, 2017).

Zeynep Ton has studied jobs in retail trade extensively, in different regions of the world, with special attention to firms that have transformed front-line jobs into good jobs while satisfying customers and maintaining profits for their investors. Like Lambert and Henly, she recognizes

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<sup>22</sup> However, the Work Scheduling Study did not report the actual distribution of wages.

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opportunities for improving the quality of jobs in retail. The transformation of bad jobs into good jobs centrally involves building stability into the scheduling protocols as well as improving wages and benefits. She emphasizes that such a transformation can be good business practice, provided that it is accompanied by supporting changes in operations and in investments in employees – changes that are more fundamentally transformative of the typical (non-union) retail model than the voluntarist manager-level practices described by Henly and Lambert.

Ton argues that in the area of operations, model retailers make four critical operational choices. They first simplify by offering a more narrow range of products, staying open for fewer hours (say, until 8:30 p.m.), and/or maintaining everyday low prices rather than offering temporary promotions. A more narrow range of products reduces costly errors in stocking and inventory management. Second, while these retailers standardize operations to a great extent, they also empower workers to adapt to customers' and employers' needs. Third, Ton's model retailers cross-train workers, so that they can be flexibly deployed while maintaining stable working times. Where there is cross-training, employers do not have to forecast workload in short increments like fifteen minutes; they can forecast for as long as a day. Forecasts over longer time intervals are generally much more accurate than forecasts over shorter time intervals. Fourth, these retailers deliberately operate with more slack. This improves customer service and enables employees to be involved in continuous improvement activities. "Employees who are not always swamped with immediate tasks and who are empowered can use their extra time to identify problems, come up with solutions, and communicate both the problems and solutions". (p. 164) They also don't quit, show up late, or simply fail to report to work as frequently.

These retailers invest in employees by offering high wages, benefits and good schedules, but they also set and enforce very high standards for employee performance. The improvement in employee morale means that employees make fewer of the mistakes and take fewer of the shortcuts that result from understaffing. Higher morale leads to fewer stocking errors and inventory errors, less damage to inventory, and better customer service.

"These two ingredients [operational choices and investing in workers] are highly dependent on each other. The four operational choices make the high investment in employees possible by reducing business costs and increasing labor productivity. At the same time, it is the high investment in skillful and motivated employees that makes these operational choices work well" (p. 17). It does not pay simply to invest in employees without supportive operational changes, and vice versa. Either part of the strategy on its own would put the firm at a competitive disadvantage, and Ton mentions several examples.

Ton gave several examples of companies that simplified their operations and invested in employees. At Costco, employees are well paid, have excellent benefits, and part-timers are guaranteed 25 hours of work every week. If the store is overstaffed, supervisors will ask for volunteers to take some unpaid time off. If employees are paid well, they can sometimes afford to check out early; the QuikTrip chain reported that sometimes they had too many volunteers for last-minute call offs, and had to randomly select the lucky workers who could go home. But if this fails, Costco also pays for the "redundant" staffing, and finds something valuable for these workers with multiple skills to do. At QuikTrip, part-timers can also get more hours by working at more than one store, because the company has standardized processes and instituted cross-training.

## 7.2 Health care

Clawson and Gerstel (2014) conducted a comprehensive case study of four health care occupations – nurses, hospital doctors, emergency medical technicians (EMT's), and nursing assistants (NA's) – who worked in a variety of health care facilities, both public and private, in the northeastern United States. Clawson and Gerstel's particular concerns were to document the intersection of class and gender in the control of working time, and to explore how instability in one person's schedule can spill over, creating instability in other people's schedules. They

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used surveys and interviews, reviewed more than one hundred union contracts, and observed in hospitals, nursing homes, doctors' offices, emergency medical service centers, union negotiations, and other settings. Here I will discuss the three occupations that were paid by the hour: nurses, emergency medical technicians (EMT's), and nursing assistants (NA's). The total hours across these three occupations ranged from frequent overtime (EMT's) to rigidly part-time (many of the NA's). In all cases, the organizations in which these people worked had to provide 24/7 coverage. They also needed staffing strategies to deal with emergencies that are in principle anticipated, although the specific time is seldom foreseen.

Nursing is a well-compensated occupation, dominated by women. The EMT's (mostly men) earn less, and the NA's (overwhelmingly women, many women of color) have the lowest pay of all the jobs studied, often depending on public assistance at some point in their careers. However, all the occupations, at the sites examined in this study, got health insurance through their jobs, even the part-time workers.<sup>23</sup>

The authors emphasized that the effect of variable scheduling for workers depends a great deal on the choice to administer organizations with some buffer against unpredictability, or with extremely lean staffing. Lean staffing often transformed small deviations from the expected into larger problems. With extremely thin staffing margins, one small change could throw an entire block of time into disarray at the organization. The initial perturbation usually caused another worker's schedule to change, and so on. This also changed the planned uses of nonmarket time for everyone involved – for example, plans for family time or childcare arrangements.

Of the four occupations studied, only one, EMT's, operated with substantial excess capacity, needed in the event of sudden large emergencies. Nurses struggled with management over lean staffing ratios, often in union contract negotiations. California was the only state with statutory nurse-to-patient staffing ratios for all hospitals. (p. 61) There were some statutory controls of staffing ratios for EMT's, but they varied across locales and sometimes changed. The staffing ratio for EMT's was for the most part a managerial prerogative within the constraints of the budget and market wages. There were also few strong statutory staffing ratios for nursing assistants in nursing homes. There were some state minimum ratios, but enforcement tended to be weak, and the state regulations were sometimes modified or eliminated. Clawson and Gerstel reported that the U.S. Department of Health and Human Services estimates adequate staffing to be 2.9 certified NA hours per resident day. However, the actual average ratio for the U.S. is significantly lower: only 2.3 NA hours per resident day. The reimbursement rates set by Medicaid (public health insurance for the poor) and Medicare (public health insurance for the elderly) were so low that nursing home managers had difficulty increasing their staffing ratios.

Managers set the official schedule in different ways in these occupations. Schedulers in nursing considered the number of patients and severity of their needs, as well as nurses' specific skills and scheduling preferences. Management had to pay considerable attention to nurses' preferences because of a nursing shortage. The EMT official schedule was set at the start of the year for the entire year. "EMTs must work day and night shifts, weekdays and weekends, on a schedule that repeats itself from week to week." (p. 75) Individuals could not negotiate the official schedule. NA's had little control over the basic schedule. They rotated every two weeks through two of three possible shifts – 7:00 a.m. to 3:00 p.m., 3:00 p.m. to 11:00 p.m., or 11:00 p.m. to 7 a.m.

Workers in all these occupations were anxious to avoid weekend work. Nurses could avoid weekend work by working in doctors' offices, schools, or insurance companies. A persistent nursing shortage gave hospital nurses considerable bargaining power, and they used their leverage to establish a strict demarcation between work and home, including avoidance of

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<sup>23</sup> The only workers mentioned who did not get health care benefits were per diems, workers hired as needed on a day-to-day basis to fill gaps in the schedule and to avoid paying overtime. Managers sometimes used these to fill the gaps in coverage by nurses and NA's.

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weekend work. As a result, hospitals recruited “specialists” in weekend work, while sweetening the incentives for weekend work. Under these special provisions, some nurses worked every weekend but only weekends, either in two 12-hour or 16-hour shifts, but received full benefits and other kinds of special remuneration. Temporary agencies and “flex teams” also filled scheduling gaps. For both nurses and NA’s, employers regularly hired per diems when they anticipated gaps in coverage. Per diems are irregular workers, hired and paid as needed to supplement the work of regular employees, while avoiding the payment of overtime rates.

In health care as in retail, the official posted schedule was chronically subject to change. The authors examined the number of disruptions to the posted schedule experienced by workers.<sup>24</sup> Seventeen percent of nurses in the authors’ random survey indicated that they had not worked their usual number of hours in the previous week. Twenty-six percent of EMT’s and 28 percent of NA’s also said they did not work their usual number of hours in the previous week. The authors examined the planned and actual shifts worked by employees at one of the nursing homes, a stable, relatively upscale institution. They did not find one worker in the sample that had never taken a day off or picked up a day in the previous six months. About one-third of all person-shifts did not go according to plan.

Schedule changes provided flexibility both for management and workers. Management often needed to scramble to find workers at the last minute for unexpected surges in workload or to replace workers who called in sick.<sup>25</sup> Although the official schedule was rigid, and workers were seldom consulted in advance, workers in different occupations had ways of adjusting the schedule to match their own needs. NA’s often traded shifts to accommodate personal priorities, with managerial approval. When managers needed nurses to cover a shift unexpectedly, the nurses used their bargaining power to make deals with respect to future scheduling.

Overtime is another common way of making last-minute adjustments to the schedule. The mostly male EMT’s in principle had little control over their schedules and could not easily avoid overtime. However, they were paid by the hour and entitled to a 50% pay premium for any hours that exceeded the statutory forty-hour per week threshold. As socially recognized primary breadwinners, they usually embraced overtime and the extra earnings. Their contracts often gave the most senior EMT’s first rights of refusal, then sought to distribute overtime “fairly” among the others. (p. 121) Notwithstanding their basically rigid schedules and their appetite for overtime, EMT’s tried to manage their working time to take time off for family – for example, to take care of sick family members or attend school events – sometimes accepting financial penalties for doing so. Because their shifts involved unconventional shifts – evenings, nights, and weekends – they were often available for family during the day when most other full-time workers typically are not. About half of the EMT’s in this study did “tag team parenting” – that is, they tried to work shifts when their wives could be at home with the children, and not to work when their wives were at their jobs.

Nurses often stayed beyond their shifts to finish tasks and to inform the incoming shift about specific patients, but they generally strongly preferred to avoid overtime, and used the considerable control they got from the nursing shortage to limit it. Their collective agreements typically sought to limit overtime. In cases where it was unavoidable, contracts first required management to seek volunteers; if not enough were forthcoming, then overtime was required in inverse order of seniority. Nurses also made occasional use of the federal Family and Medical Leave Act, which entitles eligible workers to twelve weeks per year of unpaid but job protected time off from work in the event of childbirth, adoption, the worker’s own illness, or a family member’s illness. Nurses, however, did want to exercise their professional judgment to stay late when they thought they needed more time for a careful transition between shifts, but doing this

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<sup>24</sup> Details on the method used to calculate this are on p. 96 of the Clawson and Gerstel book.

<sup>25</sup> Turnover of course exacerbates the problem of last-minute changes in staffing needs. In another study, housekeeping and dietary services workers in hospitals expressed greater likelihood of leaving their employers if they experienced little schedule control or greater schedule instability and unpredictability. (Swanberg et al, 2016)

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too often could trigger a disciplinary process as managers sought to avoid the payment of overtime premia. As a result, nurses often stayed beyond the official end of their shift, working hours that should have received overtime pay, but without claiming any pay for those hours.<sup>26</sup>

NA's, paid by the hour and entitled to the same 50% overtime premium as the EMT's, seldom got overtime, and often wanted more hours than they could get. Their contracts were designed specifically to avoid the payment of overtime rates. (Reimbursement policies under federal programs like Medicaid generally make it very difficult to pay overtime.) The contracts typically specified 24-hour or 32-hour work weeks, which gave their employers flexibility to add hours without paying overtime premia. Their collective agreements go into great detail about management's right to assign hours first to workers whose schedules would not trigger overtime rates that week. Even so, many of the NA's wanted extra hours on straight time rates to supplement their low family incomes.

NA's are often subject to rigid sanctions under establishment policies if they miss work. In this study, the more rigid personnel policies were observed at nursing homes with greater proportions of NA staff who were black. The nursing homes studied differed in their discipline policies, for example, concerning absenteeism and late arrivals. The nursing home with a greater proportion of white NA's tended to work with the NA's to remedy such personnel problems. The nursing home with a greater proportion of non-white NA's had much more stringent and punitive discipline policies. Employers of NA's often did not comply with the Family and Medical Leave Act, insisting that these days off would be subject to disciplinary action. Sometimes a sympathetic front-line supervisor would attempt to accommodate the family needs of NA's, but upper-level management strongly discouraged this.

## 8. Use of scheduling software

Scheduling software such as Kronos and Dayforce that helps employers schedule workers for periods of peak demand is virtually ubiquitous now in large retail firms, but I am not aware of any quantitative information about adoption of such software. A new generation of software has arisen in response, which enables co-workers to trade schedules with each other; there is also nothing quantitative here.

One example of the new generation of scheduling apps in the United States and Canada that enable workers to switch shifts directly, without going through negotiations with employers, is Shyft. It is free to use and in its first year registered 35,000 users. When a co-worker wants to trade shifts with someone, s/he can send notifications to co-workers who then respond on a first-come, first-served basis. (Mojtehdzadeh, 2017) Employers sometimes prefer to have workers solve their own scheduling problems (Clawson and Gerstel), but within limits. Messing et al (2014) pointed out that workers' scheduling priorities varied a great deal, and suggested that more gains from trade could be realized with appropriate software. "Many workers, but far from all, needed free weekends. Most, but not all, wanted to start work early. Many wanted more regular schedules but others did not mind irregularity. For some, but not all, it was important to have the same free days every week. It is therefore conceivable that appropriate software could be developed that would better accommodate such complementary employee needs." The low-wage nursing home workers in Clawson and Gerstel's 2014 study frequently traded shifts with each other, they valued being able to do so, and probably could have put such software to good use, but they also disliked performing what they regarded as management responsibilities.

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<sup>26</sup> In a severe and unexpected crisis, hospitals might use bonuses, in addition to overtime pay, to encourage nurses to work overtime. (p. 119)

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Swanberg (2010) also recommended that employers offer shift-trading software (as is already being done at JetBlue, J.C. Penney, and Kraft Foods), subject to the constraints that the people trading hours have the same job classification and do not trigger overtime premia. But at least some labor organizers do not view these apps as a substitute for public policy that stabilizes total hours and incomes as well as the specific times of work. (Mojtehdzadeh, 2017) Furthermore, in environments with frequent turnover, workers may not even know who their current co-workers are. (Luce and Fujita, 2012) Workers would need managerial support to maintain a current roster on the app for employees to be able to use the software effectively.

Adoption of the latest generation of scheduling software is increasing rapidly; many of the firms discussed in this paper who had not begun to use the software as of the time of the study may have done so by now.

## 9. Evolution and Possible Causes

Scholars have commonly associated irregular hours of work during industrialization in the United States with the habits of a working class that resisted the discipline of the clock and the long hours of the 19th-century factory. (Roediger and Foner, 1989) Variability of work schedules and associated high turnover have been largely regarded as a supply-side phenomenon in the early 20th century, especially during the turbulent years of extreme labor shortages during World War I, when employer complaints about unreliable workers rose to a fever pitch (Jacoby, 1985).

At the same time, the movement for the eight-hour day gained momentum. The 8-hour shift, Monday through Friday, became the norm in many manufacturing industries in the early 20th century. In 1910, 92% of American workers worked more than 48 hours per week, but by 1919, only 51.4% did, and only 26% worked more than 54 hours. (Roediger and Foner, 1989: 177) Part-time work was still uncommon, and it was often irregular and more likely to be performed by disadvantaged workers such as blacks (McCrate, 2010).

Regardless, by the time the Fair Labor Standards Act (FLSA) was enacted in 1938 – the only national statutory regulation of working time in the U.S., the overriding concerns of its crafters were long hours and low wages, not schedule instability. (Alexander and Haley-Lock, 2015) The FLSA mandated a national minimum wage for most workers, and overtime premia for most non-managerial, non-professional employees working more than 40 hours per week.

The standard working day began to fragment in the 1980s and 1990s, driven both by the supply side and the demand side of the labor market. While total working hours in the U.S. did not change between 1970 and 2000, the proportion of workers with less than 30 hours per week and the proportion with fifty or more both increased between 1970 and 2000. (Jacobs and Gerson, 2004, p. 34) McCrate (2012) performed a shift-share analysis for a short interval during which the same occupational and industrial classifications were available for use with the CPS-WSS, finding that while the proportion of workers reporting variable starting and stopping times of work and no control was more common within some industries and occupations, most of the growth of this kind of instability had happened across industries and across occupations in 1997-2001.

Since the 1980s a variety of supply-side and demand-side factors have contributed to the growth of schedule instability.

Supply: The growing numbers of married women in the labor force increased the supply of workers seeking part-time jobs, which firms willingly provided because of the greater ease with which part-time work may be targeted at periods of peak demand. (Firms also appreciated the lower hourly wages and lower costs for health insurance associated with part-time work in the



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United States). While married women have been more willing to accept part-time jobs than others, they have often sought schedules that are flexible on their own terms. However, as American women integrated themselves more fully into the labor force, they became no more likely to get jobs with worker-oriented schedule flexibility than men. (McCrate, 2005) White married mothers, moreover, have stayed out of the most unstable and unpredictable employer-driven schedules. (McCrate, 2012) At the same time, large-scale immigration and outsourcing have greatly increased the supply of workers (at all skill levels, for all kinds of work schedules). In conjunction with union weakness in the U.S., the growth of labor supply has reduced workers' bargaining power. In addition, welfare reform in the mid-1990s, which involved new statutory work requirements and new limitations on length of eligibility, may have pushed low-income parents into jobs with unstable schedules. What little evidence we have suggests that a lot of low-income parents ended up in these jobs (Johnson et al, 2010).

*Demand:*

The value of workers' time to employers varies across the day, week, year, and business cycle. Firms only want to hire workers when the value of their output in a particular fragment of time equals or exceeds the wage ( $MRPL \geq w$ ). Considering the case of hourly workers in retail trade, Vigdor et al describe this as a problem of distributing risk. "Employers face risk in the sense that they cannot be certain how many customers they will need to serve on a future date. If they guarantee their employees work before learning this information, they accept risk themselves. If they wait, calling employees in only if business turns out to be brisk, they shift the risk to employees" (p. 3).

However, we still need a lot more research to pinpoint the reasons for the growth of unstable work schedules, especially to understand the role of social choices in the adoption of production technologies, where "technology" is understood to include both equipment and the social organization of the firm. The temporal relationship between revenues and costs is of course to some extent driven by the characteristics of the product. In industries and occupations where output is impossible to inventory (such as the rapidly growing service and retail trade sectors), or where firms have reduced buffers of physical inventory and the associated costs (just-in-time or lean manufacturing), unstable schedules are often more valuable to firms than stable schedules. Services, retail trade, and just-in-time manufacturing have increased their share of employment in the U.S., while some kinds of work, where the specific time does not matter as much, have declined. (An example is processing forms in clerical work. Much of this work has been automated.) In addition, global operations mean that firms sometimes need to communicate with distant branch establishments in other time zones well outside standard business hours, so that some employees may need to extend their availability on short notice even to the middle of the night.

However, extreme schedule instability is not the inevitable by-product of certain kinds of production technologies. While some kinds of work are of course more subject to unpredictable events that require adjustments in hours, the necessity for adjustment is exacerbated by firms holding little buffer and operating with razor-thin staffing margins.<sup>27</sup> (Dawson, et al, 2004; Clawson and Gerstel, 2014) Instability is also typically exacerbated by extended hours of operation, such as 24/7, which often entails rotating workers among day/evening/night, and weekday/weekend shifts. If the shift is particularly undesirable, if there is short notice, or if there is high absenteeism and turnover (which itself is partly a consequence of undesirable or unpredictable work times), schedule instability increases among workers who must substitute for no-shows. Lean production and extended hours are ultimately social choices.

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<sup>27</sup> In this context, the shareholder value movement may be at the root of the problem. The growth of savings vehicles such as mutual funds, including large retirement funds, has concentrated shareholder voice, putting more pressure on management to adopt lean practices.

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Part-time unstable schedules play a specific role in this context. They allow firms to meet variable staffing needs while legally avoiding the payment of overtime premia. In addition, for part-time unstable schedules, a contributing factor in the U.S. may be the decline of quasi-fixed employment costs such as employer-provided health insurance and training, that firms prefer to spread over more hours. If firms can avoid these costs, there is less incentive to hire full-time workers. (Lambert, 2008; Lambert, Haley-Lock and Henly, 2012) The 2008 recession in the U.S. was characterized by lingering high levels of involuntary part-time employment.

Institutions that used to protect workers have lost effectiveness, especially in the private sector in the U.S. Unions still often directly negotiate over schedules, but in most industries from a greatly weakened position. In Canada, overall trade union density has fallen from 35.1% in 1977 to 26.4% in 2014. In the same period in the U.S., it has fallen from 23.6% to 10.7%. (Organisation for Economic Co-Operation and Development, 2017) The decline in the proportion of private sector workers covered by a collective bargaining agreement in the U.S. has been particularly steep, from 23.3% in 1977 to 7.3% in 2016 (Hirsch and MacPherson, 2017).

The Fair Labor Standards Act of 1938, the only national law regulating work in the U.S., is oriented toward the most salient problems of the 1930s, long hours and low pay, not underemployment and variability. Laws are similarly outdated in Canada. Most labor regulation in Canada has been promulgated at the provincial level (except for the federal jurisdiction, which is roughly inter-provincial commerce, and which is covered by national law). These are also for the most part inadequate to addressing the problem of unstable work schedules. Only the province of Saskatchewan requires employers to give workers one week of advance notice on schedules and schedule changes. (Mitchell and Murray, 2017, Mojtehedzadeh, 2015(b)) For instance, in Ontario (Canada's largest province), the Employment Standards Act does not require minimum advance notice of work schedules, does not penalize employers for cancelling a shift at the last minute, does not specify a minimum number of hours/week, and does not give incumbent workers rights of first refusal when additional hours become available. The Ontario Employment Standards Act contains just one protection related to scheduling, commonly called "show-up pay": if a worker is called in to work and then sent home because their shift is shortened or cancelled, the employer must give the worker three hours of pay (Mojtehedzadeh, 2015(a)). (Some version of show-up pay is in the laws of all Canadian provinces).

## **10. Institutions and regulations that affect instability**

The cornerstone of U.S. working time regulation, the 1938 FLSA, was designed to address the problems of low wages and long working hours. Unpredictability and overtime are strongly correlated, so the FLSA indirectly regulates the former. However, as discussed in section 4.3, fewer workers are covered by the law's overtime provisions today than its crafters may have expected, and there are widespread violations of the provisions on overtime. The FLSA was also not designed for modern work patterns that include schedule instability, unpredictability, and erratic earnings for total hours usually below forty per week. (Alexander and Haley-Lock (2015). Firms' attempts to limit statutory overtime payments while maintaining flexibility may actually contribute to schedule instability for workers with fewer hours, especially part-time workers, although the studies discussed earlier agree that flexibility is usually the primary motivation for schedule instability. Carré and Tilly (2012) observed that the number of labor market regulations has increased but the level of enforcement has declined over the last thirty years. There is also nothing at the national level that regulates the minimum number of hours or the predictability of work for anyone.

Before 2015, eight states (California, Connecticut, Massachusetts, New Hampshire, New Jersey, New York, Oregon, Rhode Island) and the District of Columbia and Puerto Rico had enacted

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“show-up pay” laws (also known as “reporting pay” laws). (National Women’s Law Center, 2015) Alexander and Haley-Lock (2015) report that show-up pay provisions were included in United Auto Workers contracts as early as 1939, and that by 1984, 72% of collective bargaining agreements included reporting-pay provisions. Current reporting pay laws vary in coverage. While they apply to all non-exempt (i.e., hourly) workers in California, the District of Columbia, New Jersey, New York and Rhode Island, they only apply to certain industries in Connecticut and Puerto Rico, and only to minors in Oregon; some public sectors workers in New Hampshire are also exempted.

Reporting pay laws require employers to pay workers for a minimum number of hours (from one to four), either at the employee’s regular rate of pay or at the minimum wage, if they have been required to report to work then are sent home early. There is a variety of exceptions made for various kinds of establishments in the different states. Moreover, states vary in the length of the scheduled shift needed to trigger the reporting pay requirement. Finally, employers are permitted to ask for volunteers to leave work early without receiving reporting pay. As a result, there are numerous plausible scenarios in some states in which a worker would be sent home early but not be entitled to any reporting pay. Moreover, the extent of reporting pay actually received by eligible workers depends on the level of enforcement. As a whole, the laws are complex, compliance is especially difficult for small employers, the financial penalties for sending workers home early are modest, and they may create incentives for shorter shifts (below the trigger number of hours) or purely on-call shifts (Alexander and Haley-Lock, 2015).

In the U.S., only San Francisco, California, Emeryville, California, and Seattle, Washington have fair scheduling ordinances.<sup>28</sup> The San Francisco Retail Workers’ Bill of Rights, which applies to retailers with at least forty “formula retail establishments” globally and at least twenty employees in San Francisco, as well as their janitorial and security contractors, went into effect in 2015. The affected establishments include fast food restaurants, big box stores, and retailers of clothing and food for home consumption (City and County of San Francisco, no date).

Under the terms of this law, employers must provide new hires with a good faith written estimate of the minimum number of expected shifts per month and the days and hours of those shifts. Employers must post schedules at least two weeks in advance. Employees are entitled to one to four hours of pay at their regular rate for schedule changes made with less than a week’s notice, depending on the amount of notice and length of the shift. If an employee is required to be on call but is not called in to work, the employer must provide two to four hours of pay depending on the amount of notice and length of the shift. (This addresses the problem identified in Alexander and Haley-Lock (2015) in which older reporting pay laws may incentivize on-call scheduling.) The law makes exceptions for threats to employees or property, failure of public utilities, earthquakes, and other factors not under the employer’s control. It also makes exceptions for employee-initiated changes in schedules, and for instances when the employer requires overtime (City and County of San Francisco, no date).

Employers must also offer available hours to incumbent part-time employees, before hiring additional part-time workers either directly or through contractors or staffing agencies. Employers are prohibited from discriminating against part-time workers with respect to their starting rate of pay, access to employer-provided paid and unpaid time off, or eligibility for promotion. They must also display posters that summarize the law (City and County of San Francisco, no date; see also).

The Seattle Secure Scheduling Ordinance went into effect on July 1, 2017. It covers retail and food service establishments with five hundred or more employees worldwide, and full service

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<sup>28</sup> As of July 17 2017, the Oregon state legislature passed a scheduling ordinance intended to provide more predictability for hourly workers in large retail trade and hospitality firms, and the governor is expected to sign it. However, workers provided by labor market intermediaries such as a worker leasing company are specifically exempt (Oregon Legislative Assembly, 2017).

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restaurants with at least five hundred employees and forty full-service restaurant locations worldwide. It specifically covers hourly employees who work, or report to work, at a fixed point of sale location in Seattle for 50% of the services provided to the employer, thus covering the employees of many contractors. The law requires employers to make a good faith estimate of the median hours a new employee may expect to work, and whether the employee will work on call shifts. Employers must post schedules fourteen days in advance. Before hiring new workers, employers must offer additional hours to incumbent workers (the “access to hours” provision). When employers add hours to posted schedules, the employer must provide an additional hour of pay at the scheduled rate. If an employee is scheduled for a shift and sent home early, the employer must pay for half of the hours lost. If an employee is scheduled for an on call shift and is not called in, the employer must pay for half of the hours not worked. (Like the San Francisco ordinance, this addresses the shortcoming of older reporting pay laws identified in Alexander and Haley-Lock that incentivizes on-call scheduling.) There are exceptions for employee-initiated schedule changes, for bona fide discipline-related changes, and for additions to hours under the access to hours provision. Employers must display posters about the law, and provide translations provided by the Office of Labor Standards. Under the terms of this law, employers cannot schedule a “clopensing” shift separated by less than ten hours unless the worker consents. But in all cases, pay for time that is separated by less than ten hours must be compensated at the rate of 150% of the worker’s regular rate of pay (Seattle Office of Labor Standards, no date).

The Seattle ordinance also includes a provision requiring employers to discuss employee requests regarding times and location of work. Except when the employer has a bona fide business reason to deny a request, a request must be granted in instances of “major life events” such as “transportation, housing, other job(s), education, caregiving responsibility, and care of serious health condition”. (Seattle Office of Labor Standards, no date) This is a stronger version of “right to request” laws that have been in force in San Francisco and the state of Vermont for several years, (weakly) modelled on right to request laws in Europe (although few workers in the American jurisdictions know about them). A somewhat stronger version of right to request has been introduced in the New York City Council (New York City Council Legislative Research Center, 2017).

Most recently, in May 2017, New York passed two new fair scheduling ordinances. The first requires 72-hour advance notice of work schedules while banning on-call scheduling (as defined in the opening section of this report) for employees of retail establishments with 20 or more workers. Retail employers may not schedule employees for any on-call shifts, cancel any regular shifts within 72 hours of the scheduled start of the shift, or require employees to work with fewer than 72 hours’ notice, unless they consent in writing. Finally, the retail employer may not require the employee to contact the employer to confirm a shift fewer than 72 hours before the start of the shift (New York City Council Legislative Research Center, 2017).

The second New York City fair scheduling ordinance, aiming to increase predictability, requires large chain fast food employers to provide hourly employees with a written estimate of their work schedule upon hire, and a written schedule for each subsequent seven-day work period 14 days in advance. Moreover it requires that a graduated premium be paid to hourly employees for schedule changes made by the employer on less than 14 days’ notice, with a maximum premium of \$75 for canceling or reducing the hours of shifts with less than 24 hours’ notice. The employee may decline to work or be available to work additional hours not included in the initial written work schedule. When a fast food employee agrees to work or to be available for such hours, her/his written consent must be obtained prior to the shift. There are limited exceptions in cases of public emergencies, “acts of God”, or risks to workers’ health or privacy (New York City Council Legislative Research Center, 2017).

Additionally, an initiative by the New York State Attorney General is noteworthy. In 2015, as a result of an inquiry into on-call scheduling by the attorney general, several retail chains agreed to end the practice. Later in the year, the New York State Attorney General and the Attorneys General of several other states (California, Connecticut, Illinois, Maryland, Massachusetts,

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Minnesota, New York, and Rhode Island) and the District of Columbia, sent a letter to several retailers operating within their states about the use of on-call shifts, noting that certain states have laws regarding reporting pay laws. Some of the retailers agreed to stop on-call scheduling. These agreements are likely to benefit about 50,000 workers nationwide, including workers at well-known retailers such as Disney, Payless, and American Eagle. (<https://ag.ny.gov/press-release/ag-schneiderman-and-eight-other-state-attorneys-general-probe-retailers-over-use-call>; <https://ag.ny.gov/press-release/ag-schneiderman-announces-agreements-six-major-retailers-stop-call-shift-scheduling>).

Finally, the federal Schedules That Work Act (S. 1772 and H.R.3071), if passed by Congress and signed by the president, would establish a more extensive right to request than anything currently in American law at the state or local level. It would give an employee the right to request changes in on-call arrangements, the location of work, the amount of advance notice, and the stability of the number of hours of work. The act would require covered employers to grant the request, barring a bona fide business reason for denying it, when the employee is seeking the change because of his/her own serious health condition, caregiving responsibilities, or enrolment in career-related education or training. The employer would be authorized to deny the request for other reasons. In either case, the employer would be required to have a good faith discussion with the employee about possible solutions (U.S. Congress, no date).

The Schedules That Work Act would also require reporting pay for retail, food service, or cleaning employees who are sent home early from work, placed on call when it does not result in work, or required to work split shifts.<sup>29</sup> Covered employers would be required to pay these employees for a minimum number of hours at their regular rate of pay when the worker reports to work as required by the employer but does not get the minimum number of hours. The minimum is either their scheduled hours, or at least four hours, whichever is less. The act would also require employers to pay employees for at least one hour at their regular rate if the employee is required to be on call less than 24 hours before the start of a shift, but then is not called in to work. An employer would also be required to pay these employees for one additional hour at the employee's regular rate of pay for each day that the employee works a split shift.

There are also extensive provisions in the Schedules That Work Act for advance notice for retail, food service and cleaning employees. On or before such an employee's first day of work, the employer would be required to give the employee a written work schedule including the minimum number of work hours expected per month. If the employer makes changes to that schedule, including the number of hours, it must notify the employee in writing at least fourteen days before the start of the schedule. If the employer changes a shift with less than 24 hours' notice, it would be required to provide one extra hour of pay at the regular rate, except when the worker is needed to fill in due to the unforeseen unavailability of another worker during that time. Exceptions are also made when employees voluntarily trade shifts among themselves. Employers may be subject to civil penalties in the case of wilful and repeated violations.

In Canada, most workplace regulation has been enacted at the provincial level. In Ontario, Canada's largest province, the Employment Standards Act was introduced in 1968 to establish minimum standards for work, especially for non-unionized employees. But there are at least 45 occupations in Ontario that are exempt from a variety of its provisions, many of them low-wage jobs (Mojtehdzadeh, 2015(e)).

For example, one way of limiting the unpredictability associated with overtime schedules is to make it costly to use overtime. Under the Ontario law, nonmanagerial employees are entitled to a 50% overtime premium after 44 hours of work in one week, but carveouts eliminate the right to overtime pay for jobs such as farmworkers, flower growers, IT workers, fishers and

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<sup>29</sup> All the provisions that apply specifically to retail, food service and cleaning employees' work schedules could also be applied to another occupation designated by the Secretary of Labor if the occupation meets the criteria in section 8(a)(2) of the Act.

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accountants. According to research by the Workers' Action Centre in Toronto, less than one third of low-income employees are fully covered by the Act's overtime provisions, compared to around 70 per cent of higher earners, because they are more likely to work in jobs that are not covered. Employers can also sign averaging provisions with an employee, allowing the former to average overtime over a period of up to four weeks without paying overtime premia, provided that the employee works less than 177 hours per month (Mojtehdzadeh, 2015(e)).

The Ontario law also does not require minimum hours or advance notice of work schedules. (In Canada, only Saskatchewan requires one week advance notice of work schedules and schedule changes. (Mitchell and Murray, 2017) The Ontario Employment Standards Act contains just one protection related to scheduling, commonly called "show-up pay": if a worker is called in to work and then sent home because their shift is shortened or canceled, the employer must give the worker three hours of pay. However, there are no penalties for cancelling a worker's shift even an hour before it is scheduled to start, and the rule does not apply to workers who are regularly scheduled to work less than three hours (Mojtehdzadeh, 2015(a) and 2015(b)).

The Ontario Changing Workplaces Review recommended a sectoral-specific approach to the regulation of scheduling, recognizing that businesses' and workers' priorities vary greatly. It recommended that The 2000 Ontario Employment Standards Act give the Ministry of Labour the authority to regulate the work schedules, whereupon the Ministry should adopt a sectoral-specific approach, probably prioritizing fast food and retail, appointing sector-specific commissions to develop the regulations. It also recommended amending the Employment Standards Act to provide a right to request changes in work schedules (Mitchell and Murray, 2017 (a)).

## **11. Promising Directions for Addressing Work Schedule Instability**

### **11.1 Employers' voluntary practices**

Some case studies in the U.S. have emphasized that even firms in reasonably competitive industries at high risk of unstable scheduling – where it is costly or impossible to maintain inventory against sudden spikes in demand – can sometimes make more worker-friendly scheduling decisions than other firms in the industry. For example, store-level managers in Lambert and Henly's retail case study of an American women's clothing chain (Section 7.1), whose central management imposed strict limits on labor costs, sometimes gave workers more stable hours, providing evidence of some remaining managerial discretion. Ton's book, discussed in the same section, describes more extensive operational changes that retail firms can make to create good jobs with more stable schedules. The literature on work schedules offers many more suggestions for employer initiatives, including training employees to negotiate schedules, getting employee input, establishing a formal process for considering employee requests, offering shift-swapping within limits (e.g., same job classification, not incurring overtime premia), promoting cross training, training supervisors to respond to scheduling requests, giving greater advance notice of schedules, providing a minimum number of hours, or guaranteeing certain shifts or certain days. (Watson and Swanberg, *Workplace Flexibility* 2010) Siroise and Moore-Ede (no date, pp. 11-12) also suggest re-engineering, setting a maximum overtime budget of 12%, and recruiting and training well ahead of when the trained staff will be needed, for firms operating in 24/7 environments.

The Lambert and Henly (2010) and Henly and Lambert (2015) retail case study discussed extensively above concluded that front-line managers do have real options with respect to involving employees in scheduling: limiting the number of sales staff in order to increase hours per employee, giving greater advance notice to workers, and even occasionally challenging the

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limits on hours set by central management. (See also Lambert and Henly, 2012, and Haley-Lock, 2011.) This accords well with recent developments in empirical labor economics that question the canonical market-following competitive labor market model. (And it would not be a surprise to many operations researchers.) However, I think that some questions remain about voluntary employer initiatives.

We now have quite a bit of evidence that turnover falls when workers have more input into their schedules, or when they get greater advance notice, or when managers assign more hours per capita by limiting headcount. However, in the Lambert and Henly (2010)/Henly and Lambert (2015) case study, some managerial responsiveness to employee scheduling requests came at the expense of managers themselves, who put in more hours when they tried to accommodate sales associates' requests in a context of very lean staffing imposed by higher-level management. These salaried front-line managers did not get overtime pay. They tended not to feel supported by higher levels of management when they tried to support sales associates. Not surprisingly, then, when "managers of nine of these stores (randomly selected from the larger pool) agreed to try posting schedules further in advance than was their usual practice for a six-month period... most of the managers in these nine pilot stores were successful at posting schedules further in advance than usual at least some of the time, [but] it proved difficult for managers to do so reliably for the six-month pilot period" (Henly and Lambert, 2014).

It is not clear that significantly greater responsiveness to employees' preferences can survive within a lean operational model, because of the fundamental scarcity of total hours. Scarce hours incentivize employees to compete with each other to provide availability and effort, which in turn enables managers to back off from commitments to accommodate workers' preferences. And I personally am not convinced that many firms are greatly disadvantaged by low-wage employee turnover within the lean staffing model. For example, Matos et al (2017) (discussed in section 5.2) of this report) documented a significant difference in the provision of employee-initiated flexibility among firms who had many hourly employees and firms that did not, suggesting that firms have already done a great deal to allocate scheduling amenities to the employees in which they have invested the most, while making strategic choices to offer less to their hourly employees. The benefits to firms are likely to depend on the industry, the occupation or job title, the firm, and the prevailing institutions. This is an empirical question.

Ton argues that in order for retail jobs to be good jobs (including several of the stable scheduling suggestions made by Watson and Swanberg), firms must both invest in their workforce and fundamentally change operations. Similar arguments about improving jobs while maintaining competitiveness were made some years ago in the high performance workplace literature. (See for example, Appelbaum et al, 2000.) We need to know a lot more about what can motivate firms to make such far-reaching changes, and about how the larger economic environment needs to change to support them.

## 11.2 Unions

Unions can be very effective in promoting schedule stability. Unions provide a forum for workers to voice their concerns about working conditions with (albeit now weak in the US) legal prohibitions against retaliation by employers. Strong unions will express the preferences of their own constituencies. The management of specific firms will also seek to negotiate provisions that reflect their own distinctive temporal patterns of costs and revenues. This creates a real opportunity for management and labor to balance the costs and benefits of specific scheduling arrangements in a specific environment. The outcomes of negotiations reflect the diversity of union memberships and of firm priorities. For example, Crocker and Clawson (2012) showed how a predominantly male union (EMTs) negotiated very different provisions about overtime than a predominantly female union (nurses), with each union framing its contract around a very different idea of scheduling fairness (See section 6.2 above).

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Unions also provide a built-in enforcement mechanism. Whether government agencies enforce labor regulations through voluntary reporting of violations or through proactive enforcement of laws, they must cover many workplaces on limited resources. Individual complainants may also experience significant costs – certainly in terms of time, but also possibly in terms of legal expense or even workplace retaliation. In contrast, union shop stewards and grievance officers are on the site. Workers can find them easily, and there are well established mechanisms for pursuing grievances in every contract, as well as greater protection for individual complainants.

Both in Canada and the U.S., collective agreements are negotiated primarily at the enterprise level, which enhances the ability of firms and unions to “customize” agreements. However, mobile firms can “whipsaw” (move work from one location to another to exploit differences in costs or flexibility contained in union contracts), or firms can relocate altogether. Haley-Lock (2011) pointed out that relocation is hard when the firms are tied to a particular location, which is true to a great extent in personal services, leisure and hospitality, and retail trade. But firms that produce “tradeable” goods and that operate under the principles of just-in-time inventory control can often credibly threaten to relocate. The challenge for labor producing tradeable goods is to negotiate at a level that is low enough to tailor contracts to local needs and preferences, but high enough to prevent whipsawing. The U.S. has a lot to learn from Europe in this respect, with traditions in some European countries of high-level collective agreements accompanied by some flexibility at lower levels.

Having said that, however, unions are getting weaker, not stronger, in the U.S., and local unions craft their own agreements without much ability to coordinate at the industry level. Even in that context, unions have shaped just-in-time scheduling to members’ preferences to some extent. Some collective bargaining agreements have provided opportunities for employees to indicate their preferences for overtime shifts. Watson and Swanberg (2011) mentioned an AFSCME agreement with the State of Delaware allowing employees to indicate their overtime availability and shift preferences in an overtime book that was distributed on a rotating seniority basis. A collective bargaining agreement from the La Salle County Highway Department allowed employees to be excused from mandatory overtime for illness, family emergency, or an approved leave of absence. A collective bargaining agreement between the California Nurses Association and Mills Peninsula Hospital stated that nurses would not be penalized for refusing to work overtime assigned on short notice, and that mandatory overtime would not be assigned barring a disaster or emergency declared by government officials. Numerous contracts have specified some period of advance notice. For example, a collective bargaining agreement between the Coalition of University Employees and the University of California required five days’ advance notice for a period of less than four workweeks in duration and 20 days’ advance notice for a period of four workweeks or more in duration (Watson and Swanberg, 2011).

In general, however, American unions need greater support from public policy in order to be more effective with regard to scheduling or anything else. Enforcing the labor laws that are already on the books would be a good place to start. Mandating arbitration to increase the probability of actually getting a contract after workers have voted for union representation, is also important. Most recently, however, the possibility that the Supreme Court may invalidate contractual provisions for union dues or agency fees is extremely threatening.

Union coverage is more extensive in Canada, and in the last several years, unions representing grocery store workers have made some significant headway in stabilizing work schedules and incomes. The Metro grocery chain and Unifor, a union representing 4,000 of its workers, agreed on a contract that would guarantee part-time workers a minimum of fifteen hours of work per week after one year of service, then 24 hours a week after eight years. The contract also gave workers five days of advance notice (increased from two days). (Mojtehdzadeh, 2015(c)) The United Food and Commercial Workers union local 1000a, with 10,621 part-timers, negotiated a series of pilot programs in scheduling with the Loblaws grocery chain, Canada’s largest food retailer, that specifically targeted predictability and availability, and that guaranteed minimum hours to the most senior workers by department (See Section 7.1) (Mojtehdzadeh, 2015(d)).



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### 11.3 Public Policy

Firms obviously do not want to staff operations when employees really are not needed. Public policy should therefore seek win-win solutions whenever possible, enabling firms to be flexible without imposing inordinate costs on workers. Such policies are not costless; they usually involve public expenditures. For that reason, it is desirable that they divert resources from existing programs that are relatively ineffective at generating better jobs, whenever possible. However, this will not be possible for all the ideas I discuss, and greater resources will be necessary. Finally, while win-win solutions are obviously preferred, the menu of public options should not be limited to these. Because of the external costs that unstable schedules impose on workers, their families and their communities, it is also often appropriate to increase the costs of instability for firms. Firms would be able to schedule flexibly, but they would pay for it.

Training policy is one promising area for win-win solutions. Governments could look for opportunities to reward cross-training, and subsidize it by redirecting large expenditures on largely unsuccessful job creation programs. Cities and states in the U.S. now incur enormous tax expenditures trying to lure firms from other cities and states. This resembles a prisoner's dilemma, with dubious success at increasing the number, longevity, or quality of jobs in the jurisdictions involved. (See *Good Jobs First*, no date.) Part of the tax expenditures could be redirected toward subsidizing cross-training in local firms that have a well-conceived plan to make the leap toward good jobs and good schedules. This is especially important when the problem is not enough workers (increasingly so in aging societies), rather than not enough jobs. We often need better jobs more than we need more jobs of low quality.

Public resources could similarly be redirected toward other innovative research-demonstration projects for improving work schedules and preserving flexibility for firms, involving experiments such as establishments sharing workers to offset dips in labor demand at individual locations. (For examples, see Ton, 2014.) Along similar lines, trying to encourage win-win solutions, Watson and Swanberg (2011) also suggest that governments give high-profile awards for businesses that provide flexibility to low-wage hourly workers on workers' terms, that governments provide training to firms on how to implement worker-friendly schedules, and that governments establish public-private partnerships. Governments would need to utilize the knowledge of firms that have already successfully implemented measures for good jobs with good schedules, such as those mentioned in Ton's case studies.

Another obvious possibility for governments facilitating win-win solutions is increasing women's availability through the public provision of full-time, high quality, affordable childcare. (This, of course, is expensive. But the United States lags far behind most other affluent countries in the provision of public childcare.) While no parent should be expected to work a lot of evenings and weekends when children are at home, there should be some availability for childcare in these times as well. Many mothers with part-time hours would be able to handle more variability in their schedules (within a range – say, 9 a.m. to 5 p.m., and an occasional evening or weekend day), if they were confident that their children would be well cared for. Children do need predictable time with their parents, but they do not always need mothers' full availability during the day if there is excellent childcare. McCrate (2017) pointed out that in western European countries where more children are enrolled in full-time formal early education and care, the ratio of women to men in jobs with unpredictable hours not under workers' control is higher, at about parity in the Scandinavian countries.

The public provision of childcare is increasing very slowly in some states. In the meantime, special care should be taken with the families of the most vulnerable children – those who are poor or disabled. If their parents cannot arrange truly excellent childcare due to unstable schedules, then work requirements for public assistance should be waived. (In addition, low-wage working parents who rely on public assistance should not be required to requalify frequently. Instead, their hours should be averaged over a longer time horizon (Ben-Ishai, 2015)).

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The case studies indicated that staffing margins are now so thin in many establishments that the smallest unexpected change tends to become a crisis quickly, making managers change schedules at the last minute, maintain high headcount and low hours per employee when business is slow, send workers home without hours, and do extra unpaid work themselves when business is strong or employees are not available. There are often significant health problems for employees as a result. The effects spill over to workers' families and friends. The children of workers with unstable schedules are at real risk of stymied cognitive and emotional development. Because firms do not internalize these costs, a case can be made for requiring or incentivizing firms to operate with more slack and assume more of the risk of variable demand.

In healthcare, a strong case can be made that higher staffing ratios are also important for patient care, and policymakers could strengthen statutory staffing ratios. This would require higher Medicaid and Medicare reimbursement rates for hospitals and nursing homes. Similarly, because overtime often involves very short notice, causes stress and exhaustion, and leads to errors, Watson and Swanberg also recommend limits on mandatory overtime (for example, a right to refuse, as is possible in some Canadian provinces<sup>30</sup>). Health care providers would still need some flexibility for genuine emergencies, but the goal would be to limit the kinds of emergencies that are exacerbated or even created solely by lean staffing policies (Clawson and Gerstel, 2014).

Other policies increase the cost of instability for firms. The costs and benefits of various work schedules vary greatly across industries and are incurred by different parties (workers, firms, customers, society as a whole): for example, compare health care and retail trade. Therefore the Ontario Changing Workplaces Review (Mitchell and Murray, 2017) recommended a sector-specific approach to regulation, with highest priority for sectors employing many highly vulnerable workers in precarious employment situations. Existing local and proposed federal scheduling ordinances in the U.S. do exactly that. The federal Schedules That Work Act is perhaps the broadest, targeting primarily the (very large) sectors of retail trade, food service, and cleaning. That is a place to start, but other sectors, many of which are not as visible to consumers, will eventually need to be reviewed for regulation as well: in these sectors, there are many precarious jobs with unstable schedules such as nursing aides (Clawson and Gerstel 2014), back-office data clerks working on check-clearing operations in banks, baggage handlers at airlines and food preparation workers in airline catering firms, package handlers and equipment operators in warehouses, etc (Lambert, 2008).

Other policies that increase the cost of instability and thus reduce firms' incentives for it may be entirely appropriate. Advance notice requirements with graduated penalties for very late notice are one good example. Such policies also include reducing the cost differential between full-time and part-time workers. For example, mandated job-protected paid sick days, personal days, and vacation days, in proportion to hours worked, would reduce the differential. (Only a few states in the U.S. mandate paid sick days, and part-time workers are sometimes exempt.) Mandating shift differentials for Sundays, holidays, and evening or night hours would also increase costs in shifts that involve a lot of part-time workers. Requiring a minimum number of weekly hours for part-time workers may be another (Carré and Tilly, 2012).

The extension of opening hours in retail has generated a lot of short and unattractive shifts for workers. However, it is simply not possible to restrict opening hours of retail establishments or service providers to Monday through Friday 9-5 if all the adults in many families are working close to fulltime during the same hours. The growth of women's labor force participation has made it difficult not to have some evening and weekend hours. However, the march toward 24/7 hours of operation in retail is excessive. Shift differentials, with premia for evenings and

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<sup>30</sup> Ontario requires written (possibly on-line) consent for exceeding some of its overtime provisions. Again, sector-specific regulation is appropriate: the Changing Workplaces Review did not identify many employer problems in securing consent for overtime except in some industries where workers have to coordinate closely with each other and some individuals persistently refuse to work overtime. (Mitchell and Murray, 2017.)

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weekends, would make unappealing short shifts at unsocial hours more expensive for employers (Carré and Tilly, 2012). In addition, Ton suggested closing at 8:30 p.m.<sup>31</sup>

Similar to Carré and Tilly, Lambert et al (2012) recommend increasing the quasi-fixed costs of labor in order to incentivize firms to provide more hours. They point out that now in the United States firms are largely on their own to decide which jobs will have fixed costs such as health insurance and training. They recommend requiring or encouraging employers to schedule and pay employees for a minimum number of work hours per shift or week, and creating disincentives to keep headcount high (and hours low). They also recommend cross-training, and requiring that more employers provide health insurance for their workers (Lambert, Haley-Lock, and Henly, 2012).

Lambert, Haley-Lock and Henly did not discuss the kind of sanctions that would be appropriate for firms that violate a statutory minimum hours provision. And while reporting pay laws are helpful, they only penalize employers who require that their workers show up and then send them home after working fewer than the scheduled number of hours. The San Francisco and Seattle ordinances, as well as the Schedules That Work Act, include necessary provisions to reduce the incentives for on-call work that would be created if employers were penalized only for sending workers home without work. However, even in the best case scenario, workers could still be scheduled for very few hours under reporting pay laws. This also applies to advance notice laws: they do little to stabilize total hours.

Therefore I am interested in a proposal by The Century Foundation (TCF) to use the Unemployment Insurance system to stabilize earnings. (Stettner, Cassidy, and Wentworth, 2016) Another reason is that, as Luce and Fujita (2012) pointed out, many workers in jobs with unstable schedules and short hours quit out of frustration, rather than being fired or laid off, thus exempting their employers from paying higher unemployment insurance premiums. (Employers' unemployment insurance tax is experience-rated, and they pay more into the system if they have frequent layoffs.) If more workers had access to partial unemployment benefits, and if workers had what TCF calls "schedule insurance", employers would pay more into the system and experience a disincentive when they provide short hours, and workers' incomes would be at least somewhat stabilized.

From the perspective of the 21st century, providing job insurance to workers only for zero hours of work over an extended period (complete unemployment) seems arbitrary. In fact all states already provide "partial unemployment benefits" to workers who have had a reduction in hours, or can only find part-time work after a layoff from a full-time job. Many states also already have work-sharing programs similar to those in Europe that provide partial unemployment benefits in lieu of layoffs. Work-sharing programs were used to a much greater extent during the 2008 financial crisis than previously. TCF's first recommendation is to extend partial unemployment benefits to workers earning less than 150% of the weekly benefit amount they would qualify for if laid off (as is already the standard in six states). They also recommend that states allow workers to submit pay documents over a longer period than one week (Stettner et al 2016).

TCF's second recommendation is a pilot program for schedule insurance, designed to extend existing work sharing provisions in the unemployment insurance system to promote 32-40 hour/week jobs (although those numbers are obviously not written in stone). Firms that apply for the program would submit a plan that ordinarily commits them to making their best efforts to schedule at least 32 hours per week for covered employees. Upon approval of the plan, firms would sign a schedule insurance agreement. Then, if (for example) a worker scheduled for 35 hours/week has a shift of 7 hours cancelled, the state unemployment insurance agency would

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<sup>31</sup> Alain Supiot (2001) recommended a broad democratic discussion of work hours and opening times. The regulation of market time must consider the coordination of household labor time with the times of retailers and service providers, and the coordination of workers' time with each other. It is a larger question than one of employers and employees.

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“pay a schedule insurance benefit equal to 20 percent of what the individual would receive if s/he qualified for a full week of UI benefits. Covered employees would only be subject to schedule reductions ranging from 20-40 percent of their full-time schedules.” (Stettner et al, p. 31) Firms’ covered workers would be eligible for as many as eight weeks of schedule insurance benefits every six months. Like work sharing, which was used extensively during the 2008 financial crisis, this would help firms reduce turnover and retain employees, which would encourage investment in training. After a federally funded pilot program, benefits would be experience-rated along the lines of the current unemployment insurance system, so that participating employers would for the most part carry the cost of reduced hours (Stettner et al 2016).

Finally, no discussion of public policy is complete without a discussion of enforcement. Labor law violations are already endemic in the U.S. (Bernhardt et al 2009; Weil 2014), increasing the risk of a spiral to the bottom as formerly law-abiding firms find they must also violate laws in order to remain competitive. Reporting pay requirements and advance notice laws plausibly increase the administrative burden (e.g., can the employer document specifically when s/he asked the worker to come into work or to stay home? What if the employer and worker disagree about the time?). Therefore these laws arguably increase the incentive for avoidance absent strong enforcement mechanisms. As I have argued before, unions are potentially enforcement powerhouses, they have done excellent work in Canada where they are strong (see discussion of UFCW Local 1006A in the retail case study), and they often incorporate the substance of public labor laws in their contracts, making violations grievable. However, unions are nearly absent in the private sector in the U.S., especially in sectors with many of the most vulnerable workers.

The National Labor Relations Act desperately needs revision to support union organizing, but we need to consider other enforcement mechanisms in the short or intermediate run. As administrator of the Wage and Hours Division of the U.S. Department of Labor in the Obama administration, David Weil (2014) promoted new approaches to enforcement. Prior enforcement was predominantly complaint-based: workers who did not know where to go to file a complaint, who were intimidated by their employers, or who did not have the wherewithal to pursue a complaint for other reasons fell between the cracks with great regularity. While working at DoL, Weil changed enforcement strategy so as to be more driven by the criteria of priorities, deterrence, sustainability, and system-wide impacts. (Weil, 2010) If the federal Schedules That Work Act is passed, it may be enforced by the Wage and Hours Division of DoL (as the Secretary of Labor would have the same authority to issue subpoenas and to initiate investigations as that specified in parts of the Fair Labor Standards Act of 1938), and it may benefit from the new approach to enforcement implemented there under the Obama administration. Local agencies charged with administering and enforcing fair scheduling ordinances, however, have much less experience with labor law enforcement and need to consider carefully what they can learn from federal (and to some extent) state experience. Some of the concrete measures taken under Weil’s stewardship that can be reproduced at the local level included outreach to and building relationships with vulnerable workers, and hiring bilingual investigators. For example, those charged with enforcing local fair scheduling ordinances can work with worker centers. Many localities in the U.S. and some in Canada now have worker centers, which are voluntary non-profit organizations, often supported by unions, that support low-wage workers that are not covered by collective bargaining agreements. (Fine, 2006) They have often done remarkable work supporting day laborers, for example, regularizing employment, securing higher wages, and reducing the extent of nonpayment.

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## 12. Conclusion

From the extensive case studies of work schedule instability in the U.S., and even from the largely inadequate data, we know that the problems of low schedule control, high unpredictability, and associated low and volatile incomes are pervasive in the United States and Canada. We know very well that workers, families, and communities suffer. The Fair Labor Standards Act in the U.S. and the provincial laws in Canada that regulate working time are not adequate for a regime of variable work times and widespread underemployment. Supports for workers and families in jobs with variable hours, such as high quality affordable childcare, are also seriously inadequate. Firms can take voluntary actions to remedy some of the problems, such as consulting with workers about their schedules, but these are likely to be limited and subject to retrogression in a context of lean staffing and 24/7 hours of operation. Firms can take a bigger plunge into fundamentally transforming their operations and investing in their employees, as Zeynep Ton recommends, but not many firms have expressed interest in the high road when it is institutionally so easy to take the low road in North America, when firms contemplating big changes have to compete with huge corporations such as Wal-Mart that lower the competitive playing field for everyone, and when there is so little institutional support for more fundamental transformation of employment relationships.

Policies such as greater provision of childcare and enhancements to the unemployment insurance system can help workers and preserve some degree of flexibility for firms, while firms should be expected to contribute their share toward the costs of these programs. Statutory staffing ratios in health care organizations can help workers and patients. However, some additional interventions in the labor market are needed on both sides of the border to raise the costs of unstable scheduling. New public policies such as the Schedules That Work Act would help to make work schedules more predictable. Greater support of labor unions is extremely important. While progress at the national level in the U.S. is stalled for the moment, there is greater momentum for change and greater hope at the state and local levels.

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