

Precarious Work Schedules among Early-Career Employees in the US: A National Snapshot

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SCHOOL OF SOCIAL SERVICE ADMINISTRATION

Research brief issued by EINet (Employment Instability, Family Well-being, and Social Policy Network) at the University of Chicago: <http://ssascholars.uchicago.edu/einet>.

Executive summary available at http://ssascholars.uchicago.edu/einet/files/lambert.fugiel.henly_executive_summary.b.pdf.

August 27, 2014

Abstract

This research brief presents an overview of work schedules among a representative sample of early-career adults (26 to 32 years old) in the United States. Based on an analysis of new items included in the National Longitudinal Survey of Youth 1997 (NLSY97), the brief describes the distribution of three dimensions of work schedules—advance schedule notice, fluctuating work hours, and schedule control—across early-career workers in hourly and non-hourly jobs, overall and separated by gender, regular work hours (full-time/part-time), race, and occupation. In addition, the brief gives special consideration to selected groups of hourly workers, including parents, women, workers of color, and workers in low-pay, high-growth occupations, who are at particular risk of precarious work schedules and economic insecurity. Finally, the brief suggests some implications of these descriptive findings for public policy and future research.

Acknowledgements

We are grateful to Rupa Datta at the National Opinion Research Center and to members of the Bureau of Labor Statistics NLSY97 design team for the invitation to work with them to develop the measures of advance notice and fluctuating work hours and to refine the response categories for the measure of schedule control.

We would like to thank the Center for Popular Democracy for helping prepare the executive summary and research brief for distribution.

The authors of this research brief are solely responsible for its content.

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Introduction

This research brief presents an overview of work schedules among a representative sample of early-career adults (26 to 32 years old) in the United States. Harriet Presser's (2003) early research on nonstandard timing made clear that work schedules in many US jobs hold important implications for worker and family well-being. New items included in the National Longitudinal Survey of Youth 1997 Cohort (NLSY97) allow us to analyze three additional dimensions of work schedules: (1) advance schedule notice, (2) fluctuating work hours, and (3) schedule control. This is the first time a measure of advance notice has been included in a US national survey and the first opportunity to gauge the prevalence and magnitude of weekly work-hour fluctuations across the US labor market. Modifications to an existing NLSY97 question about schedule control also make it possible to differentiate between workers whose schedules are set by their employers without their input and those workers who have at least some input into the timing of their work. The unusual detail and breadth of these data provide a valuable picture of the prevalence of these work schedule dimensions and how they intersect to place certain occupational and demographic groups at risk of work schedules that are unpredictable, unstable, or unwanted—in a word, precarious.

This brief begins with an examination of how each of these three dimensions of work schedules varies among early-career workers in hourly and non-hourly jobs, overall as well as separated by gender, regular work hours (full-time/part-time), race, and occupation. We then take a closer look at selected groups of hourly workers including parents, women, workers of color, and workers in low-pay, high-growth occupations, namely retail, food service, home care, and building-cleaning occupations. We conclude with some thoughts about the implications of these early results for public policy and further scholarly research.

This is the first time a measure of advance notice has been included in a US national survey and the first opportunity to gauge the prevalence and magnitude of weekly work-hour fluctuations across the US labor market.

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Precarious schedules and worker well-being

Work schedules can facilitate or hinder the ability of workers to arrange caregiving, pursue education, secure a second job, and earn an adequate income. Scholars have documented the difficulties posed by nonstandard timing (Dunifon, Kalil, Crosby, & Su, 2013; Han, 2004; Heymann, 2000; Joshi & Bogen, 2007; Presser, 2003) and lack of schedule control (Grzywacz, Carlson, & Shulkin, 2008; Kleiner & Pavalko, 2010; Kelly, Moen, & Tranby, 2011; Lyness, Gornick, Stone, & Grotto, 2012; Major, Klein, & Ehrhart, 2002) for family routines, marital quality, child well-being, worker health, and job performance. Recent research from case studies of firms in various industries suggests that fluctuating hours and schedule unpredictability can also undermine the health and well-being of employees and can make it difficult to secure a second job or attend school (Clawson & Gerstel, 2014; Haley-Lock, 2011; Henly & Lambert, 2014; Henly, Shaefer, & Waxman, 2006). Moreover, eligibility for many social programs depends on the number and stability of work hours. For example, although not required by federal law, states commonly tie work hours and child care subsidies closely together, making it difficult for workers with scheduling challenges to get help paying for child care or use formal child care providers (Ben-Ishai, Matthews, & Levin-Epstein, 2014; Sandstrom, Henly, Claessens, & Ros, 2014). Work-hour requirements are based on the assumption that workers decide how many hours they work, yet because hours are a key component of labor costs, corporate policies often restrict their availability. Conditioning receipt of social benefits on work hours means that workers who experience an unwanted drop in hours can be placed in double-jeopardy as they risk being denied social benefits at the very time they need supports most (Lambert & Henly, 2013).

Prior measures of precarious schedules

Many national surveys originated during an earlier period characterized by widespread standard employment, in other words, full-time jobs with stable schedules. Survey items were deliberately designed to smooth rather than reveal variations in work hours. Most national surveys that address employment continue to ask respondents to report their usual hours of work or the number of hours they worked last week. If respondents volunteer that they cannot answer the usual-hours questions because their hours vary too much, some surveys allow for a variable-hours code. For example, pooling Current Population Survey (CPS) data from 2000 through 2002, 6.4 percent of workers were coded as “hours vary” (Lambert, Haley-Lock, & Henly, 2012). The problem with this approach is that even workers whose hours vary a great deal are likely to offer a numeric response to the usual-hours question rather than volunteer that their hours vary, resulting in an underreporting of hour variation. In a survey of 293 retail employees, in which respondents were randomly assigned to receive either the question “How many hours do you typically work each week?” or one that continued with the option “or do your hours vary too much to say?” only 2 percent of respondents volunteered without prompting that their hours varied as compared with 25 percent of those explicitly given this option.² In addition to the usual-hours question, some national surveys include measures of schedule input and nonstandard timing. However, surveys lack the information needed to assess the variability and unpredictability of employees’ work schedules. These limitations have, until now, precluded analyses of the intersecting dimensions of precarious schedules on a national scale.

2 Unpublished analyses of data from the University of Chicago Work Scheduling Study; contact authors for more information.

Measures of precarious scheduling dimensions included in the NLSY97

Recently released data from the National Longitudinal Survey of Youth 1997 Cohort (NLSY97) provide information on multiple dimensions of work schedules among a representative sample of early-career adults. Beginning in 2011 with Round 15 of this ongoing survey, respondents were asked new questions designed to measure advance notice, work-hour fluctuations, and schedule control. The text of these questions follows.

1. Advance notice

How far in advance do you usually know what days and hours you will need to work?

- One week or less
- Between 1 and 2 weeks
- Between 3 and 4 weeks
- 4 weeks or more

2. Work-hour fluctuations

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

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

3. Schedule control

Which of the following statements best describes how your working hours are decided? By working hours we mean the time you start and finish work, and not the total hours you work per week or month.

- *Starting and finishing times are decided by my employer and I cannot change them on my own.*
- *Starting and finishing times are decided by my employer but with my input.*
- *I can decide the time I start and finish work, within certain limits.*
- *I am entirely free to decide when I start and finish work.*
- *When I start and finish work depends on things outside of my control and outside of my employer's control.*

Overview of the NLSY97 and selected sample

The NLSY97 is a nationally representative³ survey of people born between 1980 and 1984 who were living in the US in 1997. The National Opinion Research Center (NORC) conducts the survey under the direction of the US Bureau of Labor Statistics (BLS). The NLSY97 was conducted annually through Round 15 (2011-2012) but future rounds will be fielded every other year. Respondents were 26 to 32 years old in Round 15, the first round to include the new questions on advance notice and the source of the data presented in this research brief.⁴ The overall response rate for Round 15 is 86.5 percent. For the analyses presented in this research

³ This report uses sampling weights provided by the BLS to adjust statistical estimates for oversampling of youth of color. However, inferences of statistical significance are based on the number of sample observations, not the population *N*. We use a standard threshold ($p < .05$) for significance throughout this report.

⁴ According to estimates from the Current Population Survey, about a third of workers (34 percent of men and 33 percent of women) of what is considered to be prime labor market age (25-54) are between the ages of 25 and 34. This was true in both 2011 when the NLSY97 data were gathered and as recently as June 2014.

brief, the sample has been narrowed to respondents currently holding civilian jobs in the wage and salaried workforce (N = 3,739). We focus only on respondents' main job, which the NLSY97 defined for these questions as the job of the longest duration.⁵

Overview of respondents. As shown in Table 1, 62 percent of workers in the target population⁶ report that they are paid by the hour, 24 percent work part-time (defined as working less than 35 regular hours per week on the main job), 57 percent have no more than a high school education, 58 percent are living with a partner, and 34 percent have a child younger than 6 in their household. The population is equally split on gender, and 69 percent are White, 13 percent Black, and 13 percent Hispanic.

Additional information about the sample

It is important for readers to note that our sample does not include all respondents in the target population (current civilian employees) due to problems with the survey instrument. Some respondents who, according to NLSY97 documentation, should have been asked the new work scheduling questions were erroneously skipped past this section by early versions of the computerized interview guide. Our analyses suggest that this excluded group amounts to 26 percent of eligible Round 15 respondents in the target population. BLS staff responded to our queries about these missing data by documenting patches in survey programming that they implemented to correct skip patterns as problems came to light during the field period.⁷ The problematic skip patterns mostly affected respondents not paid by the hour. Approximately 42 percent of eligible respondents in non-hourly jobs were not asked the scheduling questions as compared with 11 percent of those in hourly jobs. Eligible respondents who were living in urban (as compared to rural) locations, were male (as compared to female), or Black (as compared to White) were significantly ($p < .05$) more likely to be skipped past the scheduling questions. Living with a partner or with children was not significantly associated with the probability of being asked the new scheduling questions.

We conduct most of our analyses separately by pay status, that is, we separate respondents paid an hourly wage (hourly) from those paid by some other metric (non-hourly). We find that these groups of employees report quite different scheduling practices, although caution is warranted in interpreting these differences. The NLSY97 infers pay status from the time unit respondents use to report their

job earnings.⁸ Although all non-hourly employees are asked whether they are paid by the hour, the NLSY97 does not distinguish between salaried employees and other non-hourly workers. Comparative studies suggest that the majority of NLSY97 respondents in the non-hourly group receive a salary (Hamermesh, 2002). Ninety-five percent of non-hourly employees in our sample report weekly, bi-weekly, monthly, quarterly, or annual earnings. But in the absence of explicit confirmation by respondents, we are reticent to interpret these time units as evidence of salaried employment. What we do know is that a small percentage of non-hourly workers (5 percent) report being paid in atypical ways such as by the day, per job, or by commission only.

Given these caveats, readers should have greater confidence in the potential of the data to represent the experiences of early-career workers paid by the hour than those paid by other means. The lack of comparable national data on work schedules means that it is not possible at this time to gauge the biases of this particular sample. Moreover, our sample excludes respondents who said they were self-employed and thus, does not represent the experiences of independent and contract workers who may be at especially high risk for precarious employment, including the types of scheduling practices examined here (Kalleberg, 2011). In sum, this research brief should be viewed as a preliminary, rather than a definitive, estimate of precarious scheduling practices among early-career adults in the US wage and salaried workforce. As more data of this type are collected,⁹ understanding of precarious schedules will expand to other groups and improve in precision.

5 For a large majority (87 percent) of the target population, this main job is their only current employee job. Of the 13 percent of workers who held two or more jobs at the time of the survey, most (59 percent of the 13 percent) reported working more hours at their "main" job than at any other job.

6 Once again, this population includes current civilian employees in the US born between 1980 and 1984 who were living in the US in 1997. In order to draw inferences from our sample about this population, we adjust the observed distribution of responses by a set of weights based on respondents' probability of being selected into the sample. Except where otherwise indicated by reference to the "sample" or "respondents," the statistics reported here are population estimates. For the sake of brevity we do not include the number of sample observations in most tables, but these data are reflected in our inferences about statistical significance. We plan to present more detailed tables in a future publication of our main results.

7 We thank Steve McClaskie in particular for his patient and detailed responses to our numerous queries.

8 "For your job with [employer name], what is the easiest way for you to report your total earnings before taxes or other deductions: hourly, weekly, annually, or on some other basis?"

9 The BLS has also included the scheduling items in Round 16 of the NLSY97, which has not yet been released.

As shown in Table 2, our sample comprises a variety of jobs that span the range of the formal labor market and include both male-dominated and female-dominated occupations. The categories used here are modifications of existing classifications (Goldthorpe, 2000; Mouw & Kalleberg, 2010) that group occupations according to their socioeconomic status, typical employment relationship, and supervisory position.

Table 1: Job and personal characteristics

Group	No. of respondents (unweighted)	Est. % of population (weighted)
Hourly employees	2,394	62
Non-hourly employees	1,344	38
Full-time (35+ hours per week)	2,837	76
Part-time (< 35 hours per week)	890	24
Men	1,842	50
Women	1,897	50
Black, not Hispanic	884	13
Hispanic	821	13
White, not Hispanic	1,905	69
Asian	60	2
Other	69	3
Less than HS	258	6
HS or GED	2,024	51
Some college	305	8
BA or higher	1,146	35
Cohabiting with a spouse/partner	2,039	58
Not cohabiting	1,689	42
Child < 6 years old in HH	1,297	34
Child 6 to 12 years old in HH	424	10
Total Sample	3,739	

Table 2. Occupational composition*

	No. of respondents (unweighted)	Est. % of population (weighted)
Elite professionals	88	3
Business staff	317	10
Technical and research staff	179	5
Arts and media occupations	75	2
Office clerks	402	10
Social functionaries	559	16
Service supervisors	236	6
Service workers	1,085	27
Production supervisors	56	2
Skilled trades	296	8
Production workers	412	11
Agricultural occupations ⁺	17	1

*Appendix A contains an overview of the occupations included in each of these categories.

⁺Excluded in subsequent analyses broken out by occupation because of the small number of respondents.

Advance notice

Advance notice of one's work schedule is an important source of predictability that can facilitate one's ability to meet both work and personal responsibilities. The further in advance workers know their work schedule, the more time they have to arrange their personal responsibilities in ways that enable them to meet work requirements. Schedule unpredictability, on the other hand, interferes with the ability of workers to plan non-work activities such as scheduling doctor's appointments, socializing with friends, and eating meals with friends or family, contributing to worker stress and work-family conflict (Alexander, Haley-Lock, & Ruan, forthcoming; Henly & Lambert, 2014). For parents, schedule unpredictability can make it difficult to arrange reliable child care and to participate in family routines that experts say are integral to healthy child development, such as monitoring homework and establishing bedtime routines (Henly & Lambert, 2005; Henly, Waxman, & Shaefer, 2006; Miller & Han, 2008). And for employees paid by the hour, an unpredictable work schedule also means unpredictable earnings.

The research cited above on unpredictable work schedules has primarily focused on nonproduction occupations at the lower end of the labor market. The new measure of advance schedule notice in the NLSY97 provides the first data on how advance notice is distributed across the labor market. This allows us to describe schedule unpredictability beyond low-status occupations and offer a fuller picture of which groups do and do not enjoy advance schedule notice.

These differences at the extremes of advance notice demonstrate that work schedules are a source of stratification and inequality in the labor market.

Table 3 summarizes how far in advance employees know what days and hours they will need to work. We estimate that over a third (38 percent) of early career employees overall know their work schedule one week or less in advance. Such short notice is estimated to be significantly more common among workers paid by the hour (41 percent) than by other means (33 percent), among part-time (48 percent) than full-time workers (35 percent), and among workers of color (44 to 45 percent) than among White non-Hispanic workers (35 percent).

In addition to the high rates of short notice among all types of workers, a notable finding highlighted in Table 3 is the bifurcation of responses to this survey question. Although 41 percent of hourly workers report knowing their work schedule only one week or less in advance, a comparable proportion (39 percent) report knowing their work schedule 4 or more weeks in advance. The middle categories (between 1 and 4 weeks) are the least common responses among all the groups considered here. A similar bifurcation is evident for non-hourly workers, despite their overall advantage over hourly workers: one-third of non-hourly workers receive one week or less notice whereas 54 percent of non-hourly workers receive four weeks or more notice, with the middle categories again being least common. These differences at the extremes of advance notice demonstrate that work schedules are a source of stratification and inequality in the labor market.

These data also suggest that short work schedule notice is not just a woman's issue. A significantly larger proportion of men (45 percent) than women (31 percent) report that they know their schedule one week or less in advance. Part-time workers are also at particularly high risk of unpredictable work, regardless of whether they are paid by the hour or not. Over 50 percent of part-time workers in non-hourly jobs and 47 percent of part-time workers in hourly jobs report that they know their work schedule one week or less in advance.

Table 4 shows how advance notice is distributed among occupational groups. Among service workers, production workers, and skilled trades, most employees know their schedule one week or less in advance. Service and production supervisors are equally split between the shortest and longest advance notice categories. In contrast, the majority of professionals, business staff, and providers of social services (for example, school teachers, social workers, and nurses) know their work schedule 4 or more weeks in advance. Schedule notice thus appears to follow status differentials between occupations, with unpredictability the norm among low qualification, closely supervised jobs and predictability the norm among jobs characterized by high educational qualifications and more prestige.

Table 3: Advance notice (percent of hourly, non-hourly, and combined total)*

	1 week or less			between 1 and 2			between 3 and 4			4 or more		
	Hrly	Non	Tot	Hrly	Non	Tot	Hrly	Non	Tot	Hrly	Non	Tot
All employees	41%	33%	38%	13%	9%	12%	6%	4%	5%	39%	54%	45%
Full-time (35+)	39	29	35	12	8	11	5	4	5	44	58	50
Part-time	47	52	48	17	15	16	10	4	8	27	29	28
Men	48	41	45	12	11	12	4	4	4	35	45	39
Women	34	25	31	14	8	12	8	5	7	43	63	51
White	39	30	35	12	8	11	7	4	6	42	57	48
Black	49	33	44	15	13	15	5	5	5	31	50	36
Hispanic	46	43	45	15	8	13	4	4	4	35	45	38

*Estimated proportion of employed cohort population overall and by pay type.

Table 4. Advance notice by occupation (percent of population)*

	1 week or less	between 1 and 2	between 3 and 4	4 or more
Elite professionals	29%	6%	7%	58%
Business staff	24	10	4	62
Technical and research staff	30	11	4	56
Arts and media occupations	29	15	4	52
Office clerks	26	7	5	62
Social functionaries	18	8	9	65
Service supervisors	37	19	8	36
Service workers	48	17	6	30
Production supervisors	42	14	2	42
Skilled trades	60	10	2	28
Production workers	53	10	3	34

*Estimated proportion of employed cohort population by occupation.

These data suggest that unpredictability as measured by limited advance schedule notice is a widespread but unevenly distributed feature of work for early-career adults. Part-time employees, skilled tradesmen, and workers in low-status occupations are particularly likely to know their schedule at most a week in advance. Within many demographic and occupational groups, however, employees seem to be divided into two main groups: one with very short notice and one with considerable advance notice. This “predictability gap” is a form of stratification that has not received much attention either from scholars or the public at large.

Work-hour fluctuations

Case studies of workers and firms in an expanding set of occupations and industries demonstrate that the number of hours employees work can vary enormously week to week (Appelbaum, Bernhardt, & Murnane, 2003; Gautié & Schmitt, 2010; Clawson & Gerstel, 2014; Haley-Lock, 2011; Jayaraman, 2013; Lambert, Henly, & Stanczyk, 2014; Luce & Fujita, 2012; Luce, Hammad, & Sipe, 2014). Until now, researchers have not had access to data on the prevalence of work-hour fluctuations across different sectors of the economy because most national surveys focus on estimating usual work hours. The new questions on greatest and fewest hours worked in the prior month included in the NLSY97 thus provide unique and needed information on the prevalence and magnitude of work-hour fluctuations across a representative sample of early career workers, albeit during a one-month period.¹⁰

Graphs 1 (hourly) and 2 (non-hourly) summarize the distribution of respondents’ weekly work hours in the month prior to the survey. In order to show the relation between the range of hours worked and usual weekly hours, we group respondents in 5-, 10-, or 15-hour brackets according to their reported usual hours.¹¹ Each vertical box displays the range between the median fewest and greatest hours for respondents with usual work hours in a given bracket. The vertical lines, or “whiskers,” extend from the 25th percentile of fewest hours to the 75th percentile of greatest hours among this same group. The diagonal trend line connects the median usual hours, marked by a dot, across hour brackets. The use of medians and percentiles rather than means allows us to focus on where the bulk of responses lie and leave out extremely high or low responses.

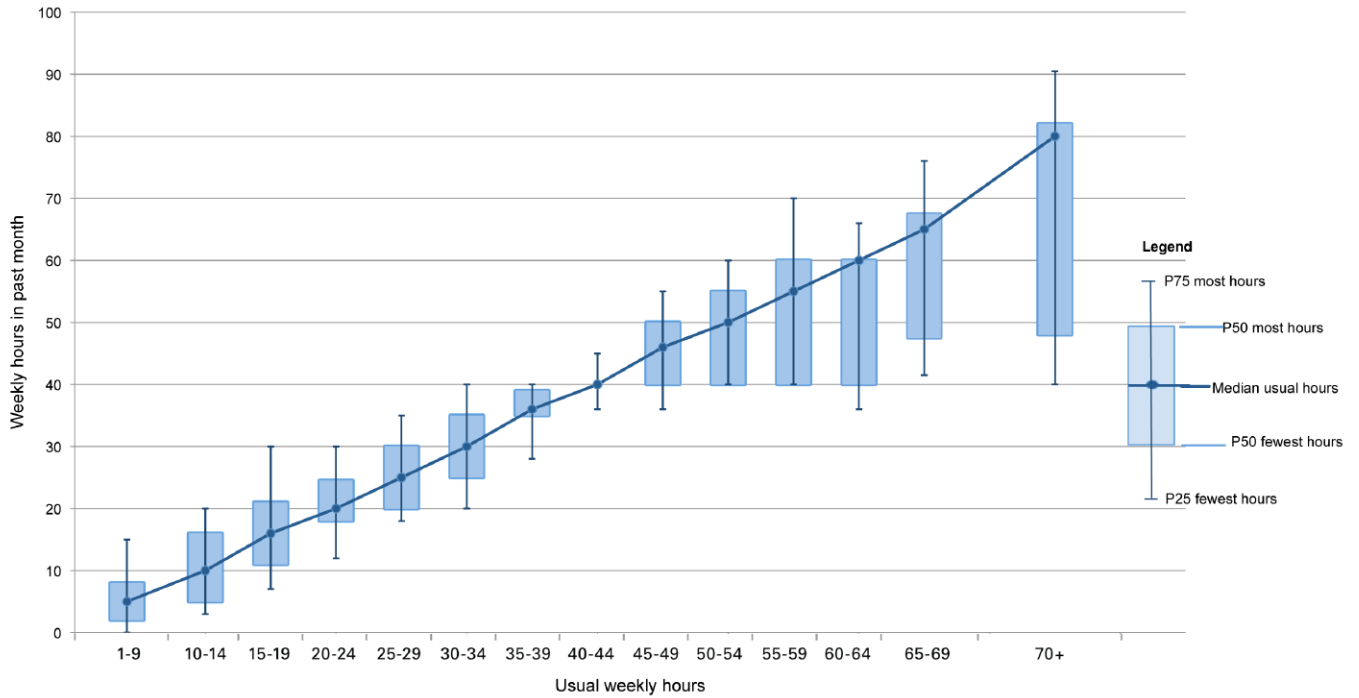
These graphs show clearly that hour fluctuations are common in our sample and typically quite large. Most of the boxes cover a median range of 10 hours or more, while most of the whiskers extend 5 or more hours beyond this range. The exception is workers who report between 40 and 44 usual hours per week, for whom 40 hours are the median fewest, greatest, and usual hours. This very stable group comprises about 43 percent of hourly employees and 39 percent of non-hourly employees. But for the majority of employees who work fewer than 40 or more than 44 hours in a normal week, hour fluctuations are the norm. Overall, the relationship between usual hours and the magnitude and direction of hour fluctuations is complex, requiring

10 The NLSY97 also includes questions on usual work hours that predate Round 15. These items do not specify a reference period. Depending on a variety of work characteristics including duration of the job and whether they work overtime, respondents are asked one of the following questions: “How many hours do you work for [employer name] in a normal week? Please include all hours you work whether at your normal work site, at home, or in some other location.” “How many hours do you usually work per week at this rate?” As with the new questions about greatest and fewest hours worked, respondents are asked to account for all of the time they spent working in the target job including overtime and work at home.

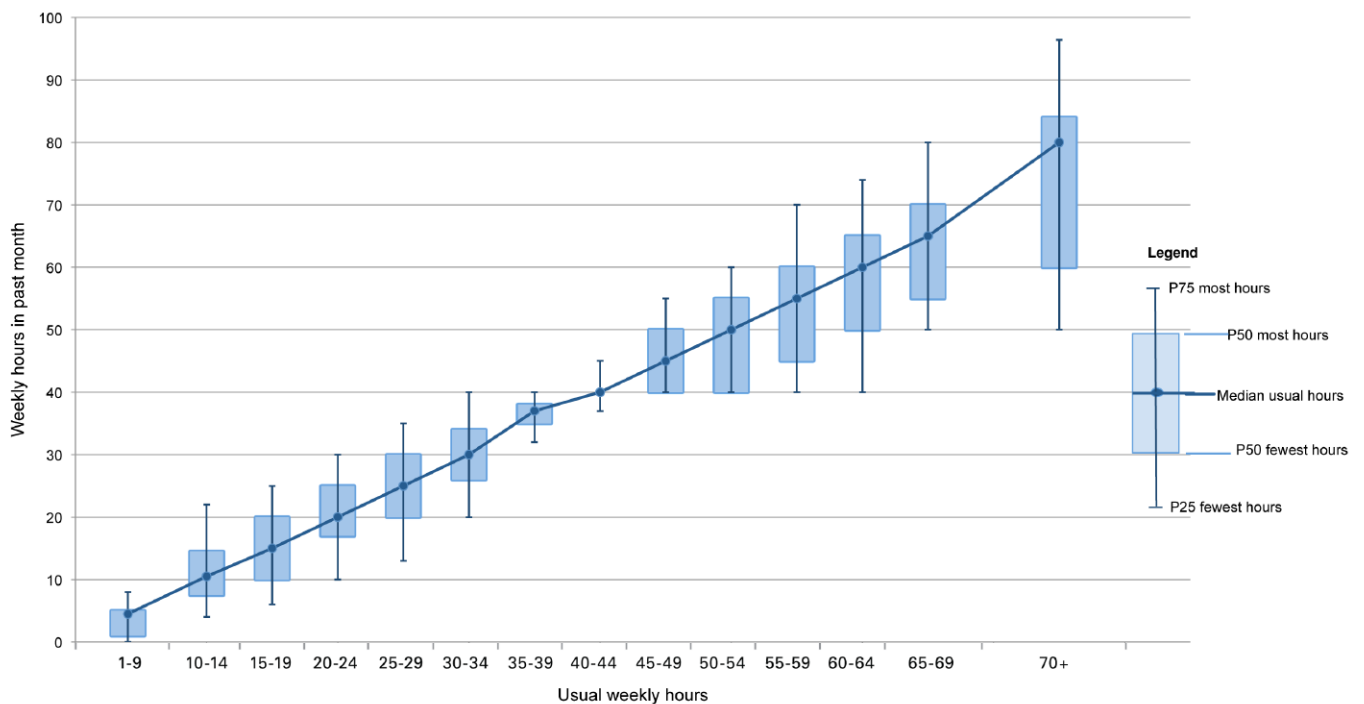
11 Workers are grouped into larger categories (wider brackets) at the low and high ends of usual hours due to the smaller number of cases at these extremes.

close attention to different patterns of work hours. Readers are reminded that the questions on greatest and fewest weekly work hours during the past month ask workers to account for all of the time they spent working in the target job including work at home and overtime.

Graph 1. Hour fluctuations among hourly workers



Graph 2. Hour fluctuations among nonhourly workers



Flexing up or flexing down? Variations in weekly work hours are not necessarily problematic. Rates of involuntary part-time employment have escalated since 2006 (BLS, 2014) and thus, additional hours may be welcomed by some workers, especially those in short-hour jobs paid by the hour. At the other end of the labor market, where over-work is a concern (Golden, 2005; Reynolds, 2005), flexing down toward lower hours may provide a welcome respite from work and additional time to participate in personal and civic life (Jacobs & Gerson, 2004; Schor, 2008).

The above graphs provide some evidence that hour fluctuations may offset low or high usual work hours, but again the picture is complex. Among employees who work 45 or more hours in a normal week, most of the range of work hours lies below respondents' usual hours. This means that it is more common for employees who usually work especially long hours to

At the high end of the work-hour distribution, the 40-hour workweek seems to be a minimum rather than the norm.

experience substantial decreases rather than increases in their weekly hours. Less than 25 percent of employees in this group report working fewer than 40 hours in the past month. At the high end of the work-hour distribution, the 40-hour workweek seems to be a minimum rather than the norm.¹²

At the other end of the work-hour distribution, the range of hours worked is more evenly distributed above and below respondents' usual hours. Among respondents working between 10 and 24 hours in a normal week, most report a range in the past month that spans at least 3 hours more and 4 hours less than their usual hours. Fluctuations of nearly a full conventional day of work over the course of a month may be more of a shock to part-time than to full-time employees, since this range represents a larger share of their total hours and, for hourly workers, of their paycheck. Moreover, only the top 25 percent of respondents working between 25 and 34 hours in a normal week reach the level of full-time hours in the past month. For most part-time workers, then, a 40-hour workweek is rare, despite considerable variation in weekly hours.

Prevalence and magnitude of work-hour fluctuations. Absolute fluctuations in work hours provide a concrete measure of work-hour instability, but the shortening or lengthening of a workweek by 8 hours is likely to mean something different to someone usually working 24 hours per week than to someone usually working 48 hours. Hour fluctuations also translate directly into fluctuations in pay for hourly workers, but not necessarily for non-hourly employees who may receive a set salary. It is helpful, therefore, to examine fluctuations relative to usual hours, not simply as a number of hours within discrete brackets, but as a standardized quantity that can be compared across different groups of workers. The following tables present summary statistics on the prevalence and magnitude of fluctuations in weekly work hours by combining responses on fewest, greatest, and usual hours among different demographic and occupational groups.

The columns titled "Any fluctuation" in Table 5 (hourly) and Table 6 (non-hourly) report the estimated share of employees with any work-hour fluctuations during the month, that is, the proportion of workers for whom the fewest hours worked in the past month are not equal to the greatest hours. Approximately 74 percent of employees in both hourly and non-hourly jobs experience at least some fluctuation in weekly hours over the course of a month. The range between the greatest and fewest weekly hours is considerable, amounting to at least one conventional 8-hour workday on average for each group considered here. Even part-time workers

¹² Recall that respondents are asked to report their fewest hours worked in the past month excluding weeks in which they "missed work because of illness or vacation."

experience wide fluctuations in hours, with a mean range of 11 hours. Overall, the mean range is 10 hours among hourly workers as compared with nearly 12 hours among non-hourly workers. Note that there is considerable variation in the fewest and greatest number of hours worked by different groups, even when the range of hours is similar. Non-hourly employees tend to report working more hours than hourly employees and men more than women.

The columns titled “Instability ratio” provide a measure of the magnitude of fluctuations in hours relative to usual work hours, calculated by dividing the hour range by the reported usual hours [(greatest – fewest) ÷ usual]. This measure captures the intuition that a range of 10 hours represents a greater magnitude relative to a 20-hour week (instability ratio = 0.5) than to a 40-hour week (instability ratio = 0.25). As shown in Tables 5 and 6, the average instability ratio is 0.37 among hourly workers overall as compared with 0.32 among non-hourly workers. If we restrict our calculation to just those employees who experience some fluctuation in work hours (i.e., we exclude those with an instability ratio = 0), the average magnitude of work-hour fluctuations rises to 0.43 among non-hourly and 0.49 among hourly workers. We can interpret this last number as suggesting that, among the 74 percent of hourly workers who reported fluctuations in the last month, hours varied by an average of 50 percent of their usual work hours.

Table 5. Hour fluctuations (hourly only)

	Work hour instability*			Weekly hours worked in prior month (means)			
	Any fluctuation	Instability ratio (overall)	Instability ratio (if hrs vary)	Fewest	Usual	Greatest	Hour range
All employees	74%	0.37	0.49	31	37	41	10
Full-time (35+)	70%	0.22	0.32	37	43	47	10
Part-time	83%	0.72	0.87	17	22	28	11
Men	78%	0.36	0.46	33	40	46	12
Women	70%	0.37	0.53	29	33	37	8
White	74%	0.38	0.51	31	36	41	10
Black	73%	0.33	0.45	31	38	42	11
Hispanic	73%	0.35	0.48	33	39	43	10

Table 6. Hour fluctuations (non-hourly only)

	Work hour instability*			Weekly hours worked in prior month (means)			
	Any fluctuation	Instability ratio (overall)	Instability ratio (if hrs vary)	Fewest	Usual	Greatest	Hour range
All employees	74%	0.32	0.43	37	42	48	12
Full-time (35+)	73%	0.24	0.33	40	46	52	12
Part-time	79%	0.75	0.95	15	20	25	11
Men	76%	0.35	0.45	38	45	52	14
Women	71%	0.29	0.40	35	40	45	10
White	76%	0.32	0.42	37	43	49	12
Black	68%	0.34	0.51	34	40	45	11
Hispanic	60%	0.28	0.46	36	41	46	10

*Any fluctuation = share of employees for whom greatest hours > fewest hours. Instability ratio = (greatest – fewest) ÷ usual, or 0 if greatest = fewest. “Overall” refers to the estimated mean among all employees in each group; “if hrs vary” refers to the mean conditional on any fluctuation.

The prevalence and magnitude of variation in work hours among part-time workers is especially noteworthy. Fully 83 percent of hourly part-time workers and 79 percent of non-hourly part-time workers reported at least some fluctuation in weekly work hours during the prior month (see Tables 5 and 6). The instability ratio among part-time workers whose hours vary is 0.87 for hourly workers and 0.95 for non-hourly workers. Although the range of variation in work hours among part-time workers is only slightly greater on average than among full-time workers (11 hours as compared with 10 hours for hourly jobs), it signifies a much greater magnitude of work-hour instability among workers in part-time than in full-time jobs (0.87 as compared with 0.32 for hourly jobs). Moreover, to the extent that part-time workers rely on the income of their main job to provide financial security, the low average of part-time workers' minimum hours (17 among hourly workers) suggests that fluctuations in work hours may bring financial insecurity.

Fluctuating work hours by occupation. Table 7 reports these same measures of fluctuating work hours for both hourly and non-hourly employees in different occupational groups, revealing a complex distribution of work-hour fluctuations that is not limited to high- or low-status jobs. Hour fluctuations are especially widespread among elite professionals (85 percent) and arts and media occupations (81 percent), whereas they are less common among office clerks (58 percent) and social functionaries (68 percent). The magnitude of fluctuations (instability ratio) among employees whose hours vary, however, is greatest for arts and media workers (0.65), service workers (0.53), and office clerks (0.52). By contrast, service supervisors experience relatively low levels of instability on average (0.24 overall, 0.31 when hours vary). In terms of the average range of weekly hours, employees in the elite professions and skilled trades show the widest fluctuations (17 and 16 hours, respectively), whereas office clerks show the narrowest (7 hours). These patterns do not fit neatly into a contrast between economic sectors or labor market segments, but they do suggest that occupations differ both in the average level of hour instability and the degree of similarity of scheduling practices across employers.

Table 7. Hour fluctuations by occupational groups (hourly and non-hourly combined)

	Work hour instability*			Weekly hours worked in prior month (means)			
	Any fluctuation	Instability ratio (overall)	Instability ratio (if hrs vary)	Fewest	Usual	Greatest	Hour range
Elite professionals	85%	0.39	0.45	37	45	53	17
Business staff	74%	0.28	0.37	38	42	48	10
Technical and research staff	76%	0.27	0.36	38	42	48	10
Arts and media occupations	81%	0.52	0.65	26	31	36	11
Office clerks	58%	0.30	0.52	34	38	41	7
Social functionaries	68%	0.30	0.44	34	39	43	9
Service supervisors	79%	0.24	0.31	37	42	47	10
Service workers	77%	0.41	0.53	28	34	39	11
Production supervisors	65%	0.30	0.47	38	47	51	13
Skilled trades	78%	0.39	0.50	36	45	52	16
Production workers	79%	0.35	0.44	34	41	46	13

*Any fluctuation = share of employees for whom greatest hours > fewest hours. Instability ratio = (greatest – fewest) ÷ usual, or 0 if greatest = fewest. "Overall" refers to the estimated mean among all employees in each group; "if hrs vary" refers to the mean conditional on any fluctuation.

In sum, the data suggest that hours fluctuate substantially for both hourly and non-hourly workers. Although the 40-hour workweek remains standard for a sizable proportion of early-career workers, the majority of young adults in the labor market work above or below this standard, incurring fluctuations in their work hours that can place them at risk of under-employment or over-work. The pattern of fluctuations across groups is complex and does not reflect a clear high-status/low-status divide. Rather, employees in different occupational groups seem to experience distinct patterns of variation that may be related to the context as well as the content of their work.

Schedule control

Limited advance schedule notice and hour fluctuations may be especially problematic for employees with limited say over the timing of their work schedules. When workers control their work schedules, variations in the number of hours worked may reflect employee-driven flexibility, a job quality highly valued by today's workers (MacDermid & Tang, 2009; Williams & Huang, 2011). Conversely, without employee control, a lack of variation in work hours—for instance, among employees who usually work 40 hours a week—may reflect rigid job requirements that do not yield when personal matters require attention (McCrate, 2012).

The NLSY97 asks respondents about a key component of schedule control by presenting a range of more employer-driven or more employee-driven descriptions of how starting and finishing times are decided. Table 8 reports the estimated percentage of early-career workers who chose each of the following response options: *Starting and finishing times are decided by my employer and I cannot change them on my own*; *Starting and finishing times are decided by my employer but with my input*; *I can decide the time I start and finish work within certain limits*; or *I am entirely free to decide when I start and finish work*.

Although the 40-hour workweek remains standard for a sizable proportion of early-career workers, the majority of young adults in the labor market work above or below this standard, incurring fluctuations in their work hours that can place them at risk of under-employment or over-work.

Table 8. Schedule control* (percent of hourly, non-hourly, and combined total)

	Employer decides			Employer decides with some input			Employee decides within limits			Employee decides freely		
	Hrly	Non	Tot	Hrly	Non	Tot	Hrly	Non	Tot	Hrly	Non	Tot
All employees	50%	35%	44%	32%	25%	29%	13%	29%	19%	3%	7%	5%
Full-time (35+)	55	36	47	29	24	27	13	29	20	1	6	3
Part-time	39	25	36	37	31	36	13	26	17	7	13	8
Men	54	33	46	29	24	27	12	29	19	2	9	5
Women	46	36	42	34	26	31	13	29	19	4	5	5
White	47	34	42	32	25	29	15	29	21	3	8	5
Black	55	42	51	30	26	29	9	21	13	3	6	4
Hispanic	58	42	53	29	26	28	8	24	13	2	6	3

*The response category "When I start and finish work depends on things outside of my control and outside of my employer's control" is not included in the table. No more than 5 percent of workers in these groups chose this response.

About 44 percent of workers overall and half of hourly workers say that they do not have any input into when they start and finish work. This employer-driven condition is the most common response for all groups of hourly workers shown in Table 8, ranging from 39 percent of part-time employees to 58 percent of Hispanics. Non-hourly employees are significantly more likely than hourly employees to decide their starting and finishing times within certain limits, though most still report that schedule decisions are employer-driven, with or without their input. Within both hourly and non-hourly groups, full-time workers and workers of color are significantly more likely (as compared with part-time and White workers, respectively) to say their employer decides the timing of their work. Only in part-time non-hourly jobs do more than 10 percent of workers say that they are entirely free to decide starting and finishing times. However, even these workers are more likely to report employer-driven rather than employee-driven schedules (56 percent versus 39 percent). Thus, employer control is clearly the norm, at least when it comes to starting and quitting times.¹³

Table 9. Schedule control* by occupation (percent of hourly and non-hourly combined)

	Employer decides	Employer decides with some input	Employee decides within limits	Employee decides freely
Elite professionals	18%	21%	38%	16%
Business staff	23	27	38	9
Technical and research staff	25	25	42	7
Arts and media occupations	28	22	33	9
Office clerks	42	30	23	4
Social functionaries	59	24	11	3
Service supervisors	27	40	24	6
Service workers	44	36	12	4
Production supervisors	37	33	25	0
Skilled trades	55	27	11	1
Production workers	65	20	9	2

*The response category "When I start and finish work depends on things outside of my control and outside of my employer's control" is not included in the table.

Although employer-driven scheduling is the norm overall, control varies with occupation in ways that roughly track differences in status and education. Employee-driven scheduling is most prevalent among employees in occupations characterized by high levels of education and prestige, for example, professionals and white-collar workers. As shown in Table 9, elite professionals, business staff, technical employees, and creative workers in the arts and media are among the employees most likely to enjoy control over their starting and finishing times. On the other hand, workers in occupations characterized by more modest levels of education and less prestige, such as in production, the trades, and service industries, are most likely to have little or no control over their work schedule. Within the broad sectors of production and consumer services, supervisors experience significantly greater schedule control than subordinates, and those in high-skill positions have more control than those in low-skill positions. However, there are exceptions to this pattern. The group we term social functionaries, which includes skilled occupations such as secondary school teachers, social workers, and police, reports low levels of schedule control. These patterns suggest that scheduling practices are shaped not only by differences in educational requirements and status, but also by the institutional environment in which jobs are situated.

¹³ Reporting that the employer sets starting and ending times does not preclude employees from exercising other forms of schedule control. For example, research suggests that being able to take time off during the day to attend to personal responsibilities is a form of flexibility especially valued by hourly workers (Golden, Henly, & Lambert 2013).

Hour Fluctuations: Flexibility or Instability?

As discussed above, schedule control can make the difference between employees experiencing hour fluctuations as welcome flexibility or unwanted instability. Table 10 (hourly) and Table 11 (non-hourly) show how the extent of schedule control relates to the magnitude of work-hour fluctuations. As before, the magnitude of fluctuations is measured by an instability ratio that norms fluctuations in weekly work hours in relation to the usual number of hours worked. Workers whose hours did not fluctuate in the past month, that is, who gave the same response to the questions on fewest and greatest weekly hours, comprise the zero instability group.

Among hourly workers, there is little relationship between the level of hour instability and schedule control. At best, hourly workers with fluctuating hours are slightly more likely than those with stable schedules to report having some input into the timing of their hours. But regardless of how much hours fluctuate, about half of hourly workers say that their employer determines their work schedule. Thus, for hourly workers, work-hour fluctuations may be better interpreted as instability rather than flexibility.

Table 10. Schedule control by work-hour instability (hourly workers)

Instability ratio*	N	Employer decides	Employer decides with some input	Employee decides (within limits or freely)
0 (stable)	617	57%	28%	15%
>0, < 0.25	650	51%	31%	18%
≥0.25, <0.5	534	50%	36%	13%
≥0.5	593	47%	33%	19%

*Instability ratio = (greatest – fewest) ÷ usual hours or 0 if greatest = fewest.

Among non-hourly workers, there is a stronger association between the level of instability and schedule control, suggesting that hour fluctuations may actually reflect greater flexibility. The more hours fluctuate, the less likely non-hourly workers are to report that their employer completely controls their schedule and the more likely they are to say that they control the timing of their work, either freely or within limits. We estimate that, among non-hourly workers with the greatest work-hour fluctuations (instability ratio ≥ 0.5), about 1 in 2 (51 percent) have some control over their starting and finishing times, while only 1 in 4 (25 percent) have no input over this aspect of their schedule.

Table 11. Schedule control by work-hour instability (non-hourly workers)

Instability ratio*	N	Employer decides	Employer decides with some input	Employee decides (within limits or freely)
0 (stable)	366	51%	28%	21%
>0, < 0.25	376	36%	26%	37%
≥0.25, <0.5	307	30%	24%	45%
≥0.5	295	25%	22%	51%

*Instability ratio = (greatest – fewest) ÷ usual hours or 0 if greatest = fewest.

Although fluctuating hours seem more likely to reflect employee-driven flexibility among workers in non-hourly jobs than among those in hourly jobs, there is clearly overlap between the scheduling experiences of hourly and non-hourly workers. About half of hourly workers have at least some input into their schedules, even when their hours fluctuate greatly, and a substantial proportion of non-hourly workers experience instability in work hours and lack of control.

Additional analyses (not shown) suggest that the chance of having short notice increases with increasing work-hour instability, for both hourly and non-hourly workers. Overall, workers with the largest fluctuations in work hours are more than twice as likely as workers with stable schedules to say they know their work schedule one week or less in advance. This exploratory study of precarious work schedules suggests that the interpretation of any one dimension of scheduling is greatly aided by considering its relation to other dimensions.

Precarious scheduling among selected groups in the labor market

In this final section, we provide an overview of the prevalence of the different dimensions of precarious work schedules among groups that are disadvantaged in the labor market or who may be especially vulnerable to the effects of precarious scheduling practices. We also look at occupations that prior research suggests are prime sites for fluctuating and unpredictable work hours (Appelbaum et al., 2003; Haley-Lock, 2011; Jayaraman, 2013; Kalleberg, 2011; Lambert, 2008; Luce & Fujita, 2012). We focus here only on workers paid by the hour.

Table 12 presents estimates of work-hour fluctuations, advance notice, and schedule control among parents of young children, workers of color, workers in hourly low-wage jobs, and women in part-time jobs (regardless of wage rate). What is perhaps most notable about the data presented in this table is that the risk of two or more dimensions of precarious work schedules is quite high among all of these groups.

Among working parents with a child less than 13 years old (44 percent of the total sample), 69 percent of mothers and 79 percent of fathers report that their hours fluctuated in the prior

69 percent of mothers and 79 percent of fathers report that their hours fluctuated in the prior month by an average of approximately 40 percent when compared to their usual hours.

month by an average of approximately 40 percent when compared to their usual hours. For many mothers and fathers, fluctuations in work hours are driven by the requirements of their employer rather than personal preferences. Half of fathers and 46 percent of mothers report that their employer decides their schedule without their input. In combination with the finding that 46 percent of fathers and 32 percent of mothers say they know their work schedule at most one week in advance, these data show a pattern

of scheduling practices that are likely to challenge the ability of even the most motivated early-career parent to fulfill responsibilities at work and at home.¹⁴

Short notice and a lack of schedule control are significantly more common among workers of color than among White workers, although they have comparable levels of work-hour

¹⁴ These data also show that employed mothers are less likely than fathers to report each of these precarious schedule practices, suggesting that a gendered division of work and family responsibilities may affect scheduling patterns. Of course, the relatively less precarious work schedules of working mothers when compared to fathers should be viewed in the context of the high overall rates of schedule precariousness among both.

instability. Among workers in low-wage jobs, those in part-time jobs are at particularly high risk of fluctuating work hours (85 percent) which on average amount to 78 percent of their usual hours, whereas full-time workers, even when paid a low wage, report much lower instability in weekly work hours (about 30 percent of their usual hours). Low-paid part-time workers are at higher risk of short notice than low-paid full-time workers, whereas low-paid full-time workers are more likely than low-paid part-time workers to report that their employer controls the timing of their work. Women in part-time hourly jobs commonly experience enormous swings in weekly work hours and a large share report short notice (41 percent) and no schedule input (38 percent).

Overall, these patterns suggest that precarious scheduling can take different forms, as some disadvantaged groups are able to avoid one or more dimension of precariousness while remaining at higher risk along other dimensions.

Table 12. Selected groups of hourly workers

	Any fluctuation	Instability ratio* (if hrs vary)	1 week or less notice	Employer decides timing
Mothers (resident child < 13 years old)	69%	0.45	32%	46%
Fathers (resident child < 13 years old)	79%	0.43	46%	50%
Black	73%	0.45	49%	55%
Hispanic	73%	0.48	46%	58%
White	74%	0.51	39%	47%
Workers in low-wage jobs ⁺				
Full-time	70%	0.30	43%	57%
Part-time	85%	0.78	49%	43%
Women in part-time jobs	81%	0.88	41%	38%

* Instability ratio = (greatest – fewest) ÷ usual hours, averaged across those reporting fluctuating hours.

+ Wage rate less than \$15 per hour

Table 13 presents comparable estimates of precarious schedules within occupations at high risk of fluctuating and unpredictable work hours. These data suggest that concerns for workers in these occupations are warranted. Some 90 percent of food service workers and 87 percent of retail workers report that their hours varied in the past month, with the range of variation amounting to a half or more of their usual work hours on average (48 percent among retail and 68 percent among food service workers). Such large swings in hours and earnings may be compounded by high rates of short notice, as 50 percent of retail workers and 64 percent of food service workers know their schedule a week or less in advance. Janitors and housekeepers experience relatively less instability and unpredictability, but 50 percent report that their employer decides the timing of their work without their input. Among home care workers, by contrast, lack of control is less common, whereas instability and unpredictability are relatively greater.

Table 13. At-risk occupations (hourly and non-exempt)*

	Any fluctuation	Instability ratio* (if hrs 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%

* Instability ratio = (greatest – fewest) ÷ usual hours, averaged across those reporting fluctuating hours.

+ Includes hourly workers and non-hourly workers whose low earnings (< \$455 week) render them non-exempt from FLSA provisions.

Conclusion

For the first time, national data are available on the prevalence and distribution of distinct dimensions of work schedules among a representative sample of early-career adults (26 to 32 years old) in the United States. The picture painted by these data suggests that workers in occupations across the labor market are at considerable risk of unpredictable, unstable work hours over which they may have little control. At the lower end of the labor market, for example, we estimate that 90 percent of food service workers experienced work-hour

Problematic scheduling practices are not limited to the lower levels of the labor market.

fluctuations in the prior month, varying by an average of 68 percent of their usual hours. Half of retail workers know their work schedule one week or less in advance, and half of janitors and housekeepers report that their employer completely controls the timing of their work. But these new data also demonstrate that problematic scheduling

practices are not limited to the lower levels of the labor market. Approximately a third of elite professionals, business staff, and technical employees say that their employer solely decides the timing of their work, and over 25 percent of workers in these occupations report knowing their work schedule one week or less in advance. Over 75 percent of early-career workers in these upper-tier occupations report work-hour fluctuations of at least 30 percent during the month, primarily reflecting surges in work hours that place them at risk of over-work.

Perhaps our most striking finding is that short notice, work-hour fluctuations, and lack of schedule control are widespread. Fully 41 percent of early-career workers in hourly jobs overall—47 percent in part-time hourly jobs—report that they know when they will need to work one week or less in advance of the coming workweek. Half of them say that their employer decides the timing of their work hours and 3 in 4 report at least some fluctuations in the number of hours worked in the prior month. On average, hours fluctuate by more than a full, conventional 8-hour day of work (and for hourly workers, pay) in the course of a month.

Beyond these overall statistics, however, we emphasize that different dimensions of scheduling intersect to generate different sorts of experiences for workers. When workers control the timing of their work, fluctuating hours may reflect desired flexibility, but when employers decide schedules, such variations in work hours may introduce unwanted instability into the lives of workers and their families. Similarly, limited advance notice of one's work schedule is likely to be more problematic when work hours fluctuate widely and workers have little say in the timing of their work. Although we have explored relationships between work-hour fluctuations and schedule control and described how patterns of

precarious work differ among vulnerable groups, more rigorous analytic approaches are needed to understand the configuration and outcomes of different sorts of schedules. It is difficult, for example, to tease apart differences between groups defined in terms of gender and race from differences between occupations that disproportionately recruit from a particular demographic. Inequality in earnings and other outcomes can often be traced to stratification and sorting of individuals into occupations (Reskin, 2003), and our initial analyses suggest that there is more variation on the dimensions of work schedules observed in this brief by occupation than by personal characteristics.

Given that this is the first time these measures of advance notice and hour fluctuations have been included in a national survey in the US, there is still much to learn about how these measures compare to other sorts of evidence about work schedules. We remind the reader that it is not possible at this point to gauge potential biases introduced into our estimates by the design and fielding of the NLSY97, especially with respect to non-hourly employees who were less likely to receive the new scheduling questions than employees paid by the hour. Even if our estimates for the population born between 1980 and 1984 were exact, these early-career adults comprise a minority of prime-age workers in the US wage and salaried workforce and do not include the self-employed. Workers' schedules may become more predictable and stable with age, especially if they accumulate seniority with an employer or work experience in an occupation. Nevertheless, members of this younger population are of special interest precisely because they are forging careers and forming families in the aftermath of the Great Recession. The immediate and longer-term well-being of families and communities depends on these young adults succeeding in the labor market which, in turn, depends on the quality of jobs and the practices of today's firms.

The first national snapshot of precarious scheduling practices provides a worrisome picture.

In conclusion, the first national snapshot of precarious scheduling practices provides a worrisome picture. Regardless of parenting status, race, gender, and occupation, large proportions of young adults in today's labor market report unpredictable, fluctuating work hours. Not knowing one's work schedule in advance or experiencing fluctuating work hours may not be particularly problematic among workers who schedule their hours themselves, but most early-career employees report having little if any input into the timing of their work. Part-time workers are at particular risk of unpredictable and unstable work schedules. Low usual hours combined with wide fluctuations from week to week and limited advance notice highlight the challenges many part-time workers face in predicting how much they will work and earn.

These data suggest that a substantial proportion of early-career workers in the labor market would stand to benefit from workweek standards that increase advance schedule notice, employee schedule control, and the stability of work hours. It is too risky to depend on the private sector alone to ensure that America's future includes an economy with good jobs that foster the continued and long-term prosperity of firms and families. Legislation that establishes a comprehensive set of standards on scheduling practices is needed to ensure that workers in all occupations and at all levels of the labor market stand a fair chance of thriving at both work and home.

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Appendix A: Occupational classification

Group name	Description	Examples
Elite professionals	elite professionals and corporate executives	corporate executives, lawyers, physicians, architects, postsecondary teachers
Business staff	business and managerial staff	human relations staff, accountants, actuaries, logisticians, education administrators
Technical and research staff	technical, engineering, and research staff	computer programmers, urban planners, economists, psychologists, archivists, pilots
Arts and media occupations	artistic and media-related occupations	actors, photographers, athletes, announcers, editors, public relations specialists
Office clerks	clerical employees and office workers	paralegals, tax preparers, secretaries, bill and account collectors, data-entry workers
Social functionaries	education, medical, and social service paraprofessionals and functionaries	secondary school teachers, clergy, social workers, librarians, nurses, police officers, tax collectors
Service supervisors	consumer and business service supervisors and first-line managers	all non-farm, non-production, private sector first-line supervisors / managers
Service workers	consumer and business service workers and front-line employees	cashiers, cooks, janitors, telemarketers, couriers, child care workers, hairdressers, security guards, taxi drivers
Production supervisors	manufacturing, construction, and transportation supervisors and first-line managers	all manufacturing, construction, and transportation first-line supervisors / managers
Skilled trades	non-farm production, repair, and transportation crafts, skilled trades, and licensed occupations	electricians, roofers, structural iron and steel workers, commercial drivers, sailors, construction painters, machinists, tool and die makers, cabinetmakers
Production workers	non-farm production, repair, and transportation laborers, operators, and helpers	machine setters, operators, and minders; packers, construction laborers, bakers, other metal and plastics workers, painting workers, misc. assemblers and fabricators
Agriculture	farming, forestry, fishing, and related occupations	farmers and ranchers, animal breeders, loggers, conservationists, miscellaneous agricultural workers

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