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Researching the causes and consequences of unemployment

Short Hours, Long Hours: Hour Levels and Trends in the Retail Industry in the United States, Canada, and Mexico

Upjohn Institute Working Paper No. 12-183

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ABSTRACT

In settings where most workers have full-time schedules, hourly wages are appropriate primary indicators of job quality and worker outcomes. However, in sectors where full-time schedules do not dominate—primarily service-producing activities—total hours matter, in addition to hourly wages, for job quality and worker outcomes. In this paper we employ a sector-focused, comparative framework to further examine hours levels—measured as average weekly hours—and trends in Canada, the United States, and Mexico. We analyze the retail sector, which is of interest because of its high rate of part-time employment in the U.S. Based on our fieldwork in the United States and Mexico and qualitative literature on Canadian retail work, we argue that the combination of business strategies and very different institutional constraints will lead U.S. retailers to a greater extent and Canadian retailers to a lesser extent to shorten hours and expand part-time jobs, whereas in Mexico it will lead retailers to lengthen hours. We apply this argument to predictions about differences in levels and trends. Drawing on standard public data sources from the three countries, we compare means and run time series regressions to estimate trends net of cyclical effects. Results broadly support our predictions, especially the distinction between the United States and Canada on the one hand and Mexico on the other. We provide additional context for these findings.

JEL Classification Codes: D22, J22, J23, J81, L81, P52

Key Words: United States, Canada, job quality, Mexico, part-time, retail, schedule, working hours

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Short Hours, Long Hours:
Hour Levels and Trends in the Retail Industry
in the United States, Canada, and Mexico

In settings where most workers have full-time schedules, hourly wages are appropriate primary indicators of job quality and worker outcomes. However, in sectors where full-time schedules do not dominate—primarily service-producing activities—total hours matter, in addition to hourly wages, for job quality and worker outcomes.

Involuntary part-time employment is one gauge of the extent to which short hours pose a problem. As of January 2012, 5.2 percent of the civilian labor force was working part-time but wanted full-time work (BLS 2012), though it is important to keep in mind that involuntary part-time work has a strong cyclical component (for example, it stood at 3.2 percent in January 2008). Involuntary part-time employment does not capture the full extent of the problem: part-timers could need or want more hours while wishing to remain part-time; full-timers could also desire more work hours. More expansive measures of hours insufficiency are rare, but in a 1985 supplement to the Current Population Survey, 27.5 percent of those employed expressed a preference for working longer hours, even at the same hourly rate of pay. Not surprisingly, this preference was more marked among those working under 15 hours (44.5 percent) as well as those working 15 to 29 hours (37.0 percent) (Shank 1986).

In examining U.S. unemployment over the past few decades, one important window has been comparison with other countries, particularly Western Europe, with particular emphasis on how national institutions have shaped job quantity and to what extent there is a job quality–job quantity tradeoff (Howell et al. 2007; OECD 1994). Again, however, there has been limited cross-national comparison of hours of work and how hours levels are set; perhaps the most prominent hours literature has consisted of debates on how *annual* hours have evolved in various

countries (Ausubel and Grübler 1995; Bell and Freeman 2001; Schor 1991; but also see Houseman and Nakamura 2001; Tilly 1996; Wong and Picot 2001). These debates have centered on comparisons of the United States with Western European countries, which have distinct constellations of labor market institutions. Another body of literature, more policy-focused, has examined policy tools (such as short-time compensation) that substitute (and subsidize) hours adjustment for headcount adjustment (Abraham and Houseman 1993, 2009).

In this paper we employ a comparative framework to further examine hours levels and trends. We take as a point of departure that the incentives shaping the setting of hours and the consequent level of hours differ by sector: for example, retail, finance, construction, and manufacturing all follow different patterns of part-time employment (Tilly 1996). In order to simplify the analysis and permit concordance of quantitative and qualitative data, we analyze the retail sector. Retail is far from representative of other sectors; it is of interest precisely because of its high rate of part-time employment and because large U.S. retailers have moved toward adoption of just-in-time staffing systems (Carré and Tilly 2007; Tilly 1996). Thus, it is a sector where nonstandard (and indeed variable) working hours are the norm.

In particular, we characterize retail operations as entailing staffing and scheduling practices that generate an hours pattern that differs markedly from the economy-wide average—though it is shared with some other services. Retail businesses are characterized by the need for long and—as a corollary—nonstandard hours of operation. The goal of providing customer convenience through extended hours of operation prevails. The timing of the extension of hours of operation, for both Sunday opening and late-night hours, varies in the United States and Canada, as will be discussed. In Mexico's modern retail, long opening hours are partly inherited from the practices of small shops. The implications of long and expanding opening hours are

clear. Long and nonstandard opening hours create two managerial goals or needs. The first is to control labor costs, and the second is to manage staffing levels by means of labor deployment, in particular scheduling. We shall argue that in the United States and Canada, this pair of goals leads retailers to expand part-time jobs and shorten hours, whereas in Mexico it leads them to lengthen hours. We attribute the differences among the three countries chiefly to distinct institutional configurations.

We have previously compared U.S. retail jobs with those in a number of Western European countries, though that research did not examine hours in much detail (Carré et al. 2010). Here, we choose to compare the United States with its North American neighbors, Canada and Mexico. These countries are in close proximity and share many of the same retail chains; for example, Wal-Mart is the largest retailer in both the United States and Mexico and is one of the top retailers in Canada as well. Importantly for the comparison, formal retailers share similar market strategies in all three countries, and in particular, Wal-Mart is a major driver of market change in each of the settings. Nonetheless, as we shall explore in some detail, the labor market institutions of the three countries are quite distinct, with important implications for hours of work. We have the advantage of having conducted qualitative fieldwork in the United States and Mexico; we also take advantage of a small but growing case-study literature on retail work in Canada. Retail food is the largest segment of retail employment, hence the qualitative data are strongest for retail food. So, in addition to considering data for retail as a whole, we zoom in on the retail food sector in each of the three countries.

We adopt an analytical approach that compares hours levels and hours trends, based on the supposition that the same institutional effects play out on the level of hours as on the trend of hours. We adopt two axes of comparison. We start with a baseline sectoral comparison,

comparing hours in the retail sector as a whole, and in retail food in particular, to the total economy, in order to highlight what is distinctive about retail. Our main dimension of comparison, however, is cross-national.

Our central variable of interest is average weekly hours per employee. Unlike aggregate hours, which combine average hours with headcount, average weekly hours translate directly into workers' experiences and retailers' strategies. The rate of part-time employment has these characteristics as well, but average hours as a measure has several advantages over the rate of part-time employment. First, the average hours measure captures the full range of hours experience, including the shortening or lengthening of hours for full-time and part-time workers who do not move from one category to the other. Second, the United States and Canada have different definitions of part-time employment, and Mexico has no official definition of the concept. Third, measuring part-time employment by industry requires analysis of microdata for each year under consideration, whereas average weekly hours by industry are available in tabular form for the United States and Canada and for selected years in Mexico.

The exposition proceeds as follows. We start by describing how labor market institutions and retail strategies function in each of the three countries, drawing on fieldwork and secondary literature. This leads first of all to predictions about differences in hours levels across the three countries, and between retail and the rest of the economy within each country. Next we examine the actual differences in levels.

We then reason from these analyses to adduce hypotheses about how the same mechanisms are likely to affect trends. Again, there is one set of hypotheses about how retail differs from the rest of the economy, and a second set about cross-national differences. We turn next to trends for the United States and Canada, to examine whether these hypotheses are borne

out. Finally, given much more limited data for Mexico, we separately consider evidence regarding trends in that country. We close the paper with brief conclusions, including policy implications.

The sources of the paper are as follows. We draw primarily on tabular government data from the U.S. Bureau of Labor Statistics (Current Population Survey and Current Employment Statistics data) and the Bureau of Economic Analysis (Gross Domestic Product [GDP] data) and their counterparts, Statistics Canada (Labour Force Survey and GDP data) and Mexico's INEGI (Economic Census, National Employment Survey [ENE], and GDP data). We also draw on retail case studies, consisting of in-depth interviews with some combination of executives, managers, and workers, in the United States and Mexico. In the United States, we conducted case studies at 16 grocery and consumer electronics chains (regional and national) during 2005–2007, interviewing 195 executives, managers, and workers and gathering quantitative indicators. In Mexico, we conducted 133 interviews at 20 chains and 12 small retail firms (food, general merchandise, and consumer electronics) located across Mexico in 2003–2004; we also conducted a three-period longitudinal survey of 91 retail workers in the state of Tlaxcala in 2006–2008. U.S. and Mexican interview data have been coded for qualitative analysis. As noted, we did not conduct fieldwork in Canada; consequently, we draw on secondary literature to flesh out the picture of retail jobs in Canada (Jacobson 2006; Kainer 1999, 2002; Skuterud 2005; Zeytinoglu et al. 2004).

Two final notes before launching into the findings: First, we are continuing to analyze the U.S. and Mexican qualitative data, so this paper draws on interim qualitative findings. Second, this paper deploys many dimensions of comparison. We compare hours levels and trends—both of the economy as a whole and of two specific sectors—across three countries. We have tried to

minimize the risk of sinking into extraneous detail by emphasizing broad patterns and significant deviations from those patterns. This approach leaves some results unexplained but is motivated by an attempt to render the results intelligible and manageable.

HOW STRATEGIC AND INSTITUTIONAL FACTORS SHAPE WORK HOURS

We return here to the question of how retailers control labor costs and deployment, and how this process differs in different institutional contexts. We first describe commonalities of the United States and Canadian cases and then turn to differences between the three countries—the Mexican case is sufficiently distinct that it is best understood in the context of that comparison.

In U.S. and Canadian retail, labor cost control is achieved first through control of unit labor cost. This involves paying part-time workers lower hourly rates, rationing part-timers' benefit access, and controlling entry-level and ceiling wage rates. Given the lower cost of part-time workers, retailers also cover a large proportion of staffing with part-timers.

This set of strategies presupposes a permissive set of institutions. 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. The distinction has become a status distinction that may have little to do with actual hours worked. A human resources officer at a U.S. grocery chain we will call Value Fresh noted, "There's probably plenty of 30-plus-hours part-time employees that just are not full-time because the stores are not able to make anybody wholesale full-time if they want to, because of the expense of the benefit packages."

Retailers achieve the control of total labor costs through the control of labor deployment—that is, through achieving a close coupling of worker hours with customer flow while maintaining minimum adequate staffing levels. Ultimately for store managers, in the short

and medium term, controlling total labor costs amounts to controlling labor hours. In the United States and Canada, where standard full-time workweeks are 37 to 40 hours, control of total labor cost is achieved in two ways: 1) with the use of part-time workers, some of whom who can flex up to 40 hours (and have lower unit cost); and 2) in some cases, with relatively low guaranteed hours for full-timers (32 to 35 hours) who can also flex up. Retailers can meet several cost-control goals this way: a close match of staffing with customer flow over time, avoidance of the overtime premium when hours must be flexed upward, and the ability to reduce hours to achieve savings at short notice. Again, labor market institutions shape this set of strategies: in particular, the overtime premium and the legitimacy of unilateral, real-time management decisions to alter an individual's work hours (not present in some European countries, as Carré et al. [2010] have pointed out).

The control of unit cost and the control of total hours obviously are mutually reinforcing. But as we study retail over the past 30 years (from the 1980s on), it is the control exerted over the labor deployment pattern in order to control total labor costs that singles out the retail sector relative to the economy as a whole, at least in the United States and Canada. In U.S. retail fieldwork, executives and managers reported increasing use of part-time workers and shortening of the minimum guaranteed hours of full-time workers. In Canada, research from Ontario (Canada's largest province) showed significant hours cuts in unionized retail food, driven by management demands (Kainer 1999, 2002).

Turning to the comparative dimension, we can summarize the three countries' labor market regimes as characterized by *flexibility* in the United States, *constrained flexibility* in Canada, and *unevenly regulated dualism* in Mexico. *Flexibility* describes a U.S. labor market characterized by low union density, limited regulation of employment practices, and a small

welfare state, all of which leave employers a great deal of flexibility. Canada's labor market is relatively flexible compared to those of France or the Nordic countries, but its higher union density and larger welfare state (particularly the national health plan) compared to the United States earn it the term *constrained flexibility*. Mexico has among the world's strongest labor market regulations on paper. But these regulations are enforced selectively (Cook [2007] argues that Mexico's system should be considered a "nonenforcement regime," which we view as an overstatement), and a majority of the economy falls within unregulated small or informal enterprises. Hence, *unevenly regulated dualism* best describes Mexico's situation.

We identify two key reasons why hours flexibility in Canada may be more constrained than in the United States. First, Canada's national health insurance plan greatly reduces the cost of health insurance to employers. Though nearly two-thirds of Canadians have supplementary health plans, most employer-provided, government provision of core health coverage greatly reduces a key cost advantage of part-time employment for retailers (Makarenko 2010). Second, Canada has significantly higher union density: U.S. union coverage in 2004 was 8.6 percent in the private sector as a whole, 6.1 percent in retail, and 22.4 percent in grocery stores (BLS 2010; Hirsch and MacPherson 2010), whereas in Canada the 2004 rates were 18.9 percent, 15.4 percent, and 41.6 percent, respectively (Jacobson 2006, Tables 60 and 61; Statistics Canada 2010f). As documented in analyses of U.S. and Canadian retail work (Kainer 1999, 2002; Tilly 1996) and in our own U.S. fieldwork, unions have resisted hours reductions and expansion of part-time work in these two countries.

Other aspects of the Canadian institutional setting may have mitigated the need for large numbers of low-wage stockers with short hours; at least in Ontario, there is no mandate for

individual product labeling, a mandate that, in the United States, seems to have fostered heavy use of short-hour part-time stock clerks (to attach or change prices).

Unlike the case in the United States and Canada, Mexico's institutions motivate businesses in general, and retailers in particular, to set *longer* hours. First, Mexico regulates hours through a wage premium on overtime, as in the United States and Canada, but the premium only takes effect at 48 hours. While some industries have adopted a shorter workweek, our fieldwork, and our review of union contracts from three Mexican states and the Federal District, demonstrate that the 48-hour week consisting of six 8-hour days is the standard in formal Mexican retail. A standard 48-hour workweek raises the average number of hours and also makes it relatively easy to cover Saturdays and Sundays (simply by staggering six-day schedules) without use of part-time workers. Second, Mexico's minimum wage sets a *daily* minimum. For jobs that pay the minimum wage or close to it, as many retail jobs do, there is no advantage to having workers cover just a few peak hours per day, because the employer must pay the daily minimum regardless of the number of hours. Indeed, contractual wage rates in general are set by the day. Third, employer-provided health and pension benefits are relatively rare in Mexico; most Mexicans depend on the inadequate and uneven but nonetheless nearly universal government-provided systems (Levy 2008). Avoiding benefit payments is not a major consideration for employers, which removes another motivation for creating part-time jobs in the United States and Canada.

Thus, the key incentives for businesses, and retailers in particular, to shorten hours in the United States and Canada are absent in Mexico. Moreover, given that pay is set by the day, there is an economic incentive for employers to press workers to work longer while paying the contractual daily wage. Retail fieldwork in Mexico indicates that, in fact, retailers do save on

labor costs by *extending* worker hours: it appears to be common for stores to require workers to work added hours without pay, despite the fact that the law mandates overtime pay for such situations. For example, a store manager at a convenience store chain we call Día y Noche made it clear that in her view someone who stays an extra hour or two does not deserve additional pay, despite the fact that Mexican law requires it:

> *Interviewer: How do you handle overtime? Do you pay for the extra hours, or are they included in the regular salary?*
>
> *Manager: For a shift—that is, if someone works on their day off—we just pay them for an extra day.*
>
> *Interviewer: But if somebody has to work, for example, one more hour at the end of a shift—does that happen sometimes?*
>
> *Manager: No, no, because here every employee has their own work, so if they don't finish it then they have to stay and finish it up.*

The operative conception is thus "a day's work for a day's pay," even if the day's work takes more than eight hours. A number of workers at various retailers confirmed this practice, with estimates ranging from "four extra hours in the average week" to "one or two extra hours [daily]." Certainly this strategy occurs in the United States and Canada as well (see, for example, Associated Press [2009]; Kainer [2002, p. 180]), but it appears to be far less common; our U.S. fieldwork (which involved a larger number of interviews, especially of workers) uncovered no instances of it. Mexican unions provide little defense against this type of stretch-out, because *contratos de protección* ("protection" or "sweetheart" contracts that make few demands on employers) are widespread in Mexican workplaces, and in retail in particular (Tilly 2009; Tilly and Álvarez Galván 2006).

This line of argument posits that some legal requirements bind more than others in Mexico: employers are more likely to violate the legal requirement to pay for all hours

worked than the requirement to pay the minimum daily wage. This supposition is certainly consistent with our retail fieldwork: there were numerous reports of unpaid extra hours, and no reports of contractual wages below the statutory minimum. It also makes sense, since there is a written record of contractual wages in employment contracts and payroll records, whereas there is no built-in record-keeping of extra work hours in retail establishments. Also contributing to the incentive to dodge overtime payments is a high premium of 100 percent (i.e., double time) up to 57 hours, and 200 percent beyond that point.

There are two reasons to think that hours extension may be more extreme in Mexican retail than in the rest of the economy. First, Mexican stores are typically open seven days a week and long hours, much like their U.S. and Canadian counterparts. Stretching out hours is one way to cover customer flows over a service day of 12 or 14 hours. Second, retail unions are notorious for being particularly prone to *contratos de protección*, leaving retail workers particularly unprotected (Tilly 2009).

A final point about Mexico is that family businesses, self-employment (including street vendors), and informal enterprises are far more common in that country. Even at *autoservicios*, the modern hypermarkets that increasingly blanket urban Mexico, baggers and parking lot helpers work strictly for tips. Though we will focus our attention on employees, Mexico's Economic Census allows us to contrast employees with a broader set of workers who include proprietors, unpaid family members, and other unpaid workers. We expect that many in this group, as well, work long hours in order to achieve a target income despite low hourly earnings.

FINDINGS: LEVELS

Table 1 presents average weekly hours, averaged across available years of data, for the three countries. Ideally it would be possible to boil this table down to nine numbers: 3 countries × (2 sectors + the total economy). However, as is common in international comparisons, the data concepts and categories do not completely match up, leading to a somewhat more ragged tabulation. There are six main inconsistencies:

1) **Category of workers.** U.S. data include only production and nonsupervisory workers; a series for all employees was only launched in 2006. Canadian data include all employees. (Comparison of the two groups for the United States in 2006–2009, when data on both were available, indicates that this distinction is unlikely to drive cross-national results.) Mexican data from the National Employment Survey (ENE) comprise all *workers* (including proprietors, the self-employed, and unpaid family members and interns); data from Mexico's Economic Census allow replication of this broad category and the U.S. and Canadian categories.
2) **Definition of the total economy.** U.S. and Mexican data report on "All private"; Canada gives numbers for "Total," including the public sector.
3) **Definitions of food retailers.** Mexican data report on "Food, beverage, and tobacco stores" and "Food retailing in supermarkets, hypermarkets, and warehouse stores," which we have combined to approximate grocery.
4) **Data source.** Some Mexican data come from the ENE, which is a household survey, and some from the Economic Census, which is an employer survey.

Table 1 Levels of Average Weekly Hours for the United States, Canada, and Mexico (multiyear averages)

	U.S.	Canada	Mexico
Total			
All private, nonsupervisory, 1987–2009	34.13		
Total, all employees, 1987–2009		36.69	
All private, nonsupervisory, 2006–2009	33.62		
All private/total, all employees, 2006–2009	34.37	36.01	
All private, all workers, 1991/2000/2003 (ENE)			43.13
All private, all workers, 1998/2003/2008 (Economic Census)			46.74
All private, all employees, 1998/2003/2008 (Economic Census)			47.66
All private, nonsupervisory, 1998/2003/2008 (Economic Census)			48.01
Retail			
Nonsupervisory, 1987–2009	30.65		
All employees, 1987–2009		33.04	
Nonsupervisory, 2006–2009	30.14		
All employees, 2006–2009	31.51	31.92	
All workers, 1991/2000/2003 (ENE)			44.53
All workers, 1998/2003/2008 (Economic Census)			52.03
All employees, 1998/2003/2008 (Economic Census)			51.57
Nonsupervisory, 1998/2003/2008 (Economic Census)			51.94
Grocery			
Nonsupervisory, 1990–2009	31.08		
All employees, 1990–2009		30.50	
Nonsupervisory, 2006–2009	29.41		
All employees, 2006–2009	31.52	30.74	
All workers, 1991/2000/2003 (ENE)			—
All workers, 1998/2003/2008 (Economic Census)			57.04
All employees, 1998/2003/2008 (Economic Census)			54.88
Nonsupervisory, 1998/2003/2008 (Economic Census)			55.07

NOTE: Hours from Mexico's Economic Census computed by assuming 52 weeks of work per year, which means weekly hours may be underestimated.

SOURCE: United States: BLS (2012); Canada: Statistics Canada (2010a,b,c); Mexico: Álvarez Galván and Tilly (2006) (ENE), INEGI (2010a,b,c,d) (Economic Census).

5) **Years available.** Both Mexican data sources are only available to us for selected years.[1]

6) **Universe of jobs.** Since U.S. data and the Mexican Economic Census data are employer surveys, in principle they report on *all* jobs. Canadian data and Mexico's

[1] The ENE is conducted every three months, but we are relying on tabulations from microdata compiled earlier by author Tilly.

ENE data come from household respondents reporting on their *main* job, which is likely to oversample longer jobs relative to the employer surveys.

Despite this somewhat daunting set of peculiarities, the data tell a fairly clear set of stories, which are consistent with our expectations. First, *retail is different* from other sectors of the economy. In the United States and Canada, as expected, this difference takes the form of significantly shorter weekly hours; this is not a novel finding. In Mexico, to the contrary—and once more as expected—the retail difference is marked by *longer* weekly hours. For Canada and Mexico, the difference is particularly strong for grocery; for the United States, grocery and retail look similar.

Second, *the countries are different* from each other. Mexico unambiguously has the longest weekly hours, for the economy as a whole and within retail (a finding consistent with a recent OECD [2011] study of 29 countries, which found that Mexico has longer paid working hours per day than all but Japan and Korea). This is true for the ENE data that include small, family, and informal businesses, but also for the Economic Census data that are limited to employees. The U.S. generally has the shortest weekly hours, but Canada comes in shorter in the grocery sector. This accords with our expectations, except for the fact that in Canada grocery workers have shorter hours. Understanding this unexpected result involves trends as well as levels, so we put off discussion of it for the Trends section.

An interesting indication that (on average) Mexican businesses press less-powerful employees to work longer hours, whereas U.S. businesses impose shorter hours, emerges from comparing the nonsupervisory category with all employees (which includes supervisors and managers). In the United States, weekly hours are longer in the broader category, which

resonates with our fieldwork finding that retail managers work extremely long hours. In Mexico, weekly hours are longer for line employees than for managers.

FURTHER PREDICTIONS, MODELS, AND REGRESSION RESULTS

Further Predictions

The analytical framework that led to our expectations about hour levels, largely confirmed by data, also points to some predictions for likely patterns in the time trend of hours by country and sector.

We foresee two main types of effects that are likely to affect hours trends:

1) **Institutional shift effects.** We have argued that institutions alter the incentives for using part-time work (for example, employer-based health coverage, or a daily minimum wage) and in some cases directly impede hours reductions (for example, through union bargaining power). To the extent that these institutions shift in nature or strength, we would expect employers to set hours differently.
2) **Competitive squeeze effects.** When price competition intensifies, bringing with it reduced sales, there is pressure on employers not just to reduce variable costs in step with sales, but to reduce *per-unit* variable costs. A U.S. retail example would be cutting costs by replacing a full-timer with two part-timers, each earning a lower hourly wage and a minimal benefit package.[2]

Two other types of effects are chiefly cyclical, but to the extent there are long-term trends toward slower or faster growth, they may also influence trends:

[2] A special case of the squeeze effect operates with self-employment and family businesses, where target earnings may lead proprietor/workers to squeeze themselves by working longer hours.

1) **Demand effects.** During a downturn, when there is less demand, less staffing is needed, and one margin for decreasing staffing is that of hours reductions.
2) **Stagnation squeeze effects.** Stagnation may duplicate the competitive squeeze effects in driving businesses to reduce unit costs. In addition, slack labor markets give employers more leverage to induce workers to work schedules they might not accept at other times.

Although we have separated out the effect of changes in institutions, it is important to reiterate that institutions will also shape how demand and stagnation squeeze effects play out.

We expect that trends will particularly be influenced by institutional shift effects. The central institutional fact is that neoliberal policies have gained dominance in all three countries over the past 30 years. To cite one illustration, Canadian union coverage in retail fell from 21.3 percent to 17.7 percent between 1997 and 2009, and U.S. coverage slipped from 15.6 percent to 13.6 percent over the same period (down from 26.5 percent in 1977) (Hirsch and MacPherson 2010, Statistics Canada 2010f). Similarly, Mexican union density dropped from 30 percent to 20 percent between 1984 and 2000 (Fairris and Levine 2004). These shifts in unionization have been accompanied, on the whole, by a loosening in government labor-market regulation (though this has taken varied forms; in the United States, for example, the *number* of regulations has increased [Weil 2008], but the *level of enforcement* has declined [Bernhardt et al. 2008]). At the same time, retail competition has heightened with the entry of big-box and on-line retailers, including cross-border movements by giants like Wal-Mart and Amazon (Planet Retail 2008). In this context, we expect that workers will be more exposed to employer cost-reduction strategies. Hence, we predict a trend toward decreasing weekly hours in the United States and Canada, and a trend toward increasing weekly hours in Mexico. We expect that the same forces that have kept

hours higher in Canada than in the United States might lead to delayed or slower reductions in hours in the former country.

Finally, Mexico is a special case within our trio of countries because economic growth has lagged behind workforce growth for more than two decades. This long-term stagnation is not adequately captured by unemployment figures, because in the absence of an unemployment insurance system, Mexicans can ill afford to stay unemployed and typically will move into informal or self-employment rather than remain jobless. But this means that a shift toward slower growth, which in the context of the United States and Canada we think of as a short-run cyclical phenomenon, in present-day Mexico also has the character of a long-run trend. This suggests that institutional shift effects may be joined by stagnation squeeze effects (less so by demand effects, which are more short-run) in driving a trend toward longer working hours.

Models

To evaluate trend patterns in U.S. and Canadian data, we run simple autoregressive time series models of the form:

(1) $$y_t = \beta_0 + \beta_1 x_t + \beta_2 x_{t-1} + \beta_3 x_{t-2} + \Gamma Z + \delta t + \eta_1 y_{t-1} + \eta_2 y_{t-2} + \varepsilon_t ,$$

where

- $y_t = ln(h_t)$, the log of average weekly hours; [3]
- x_t takes two forms. In specifications with unemployment as the main regressor, $x_t = u_t$, the economy-wide unemployment rate. In specifications with change in GDP as the main regressor, $x_t = ln(GDP_t / GDP_{t-1})$, the first difference of the log of inflation-adjusted economy-wide GDP.
- Unemployment equations use monthly data, whereas GDP equations use quarterly data (since GDP data are only available quarterly).

[3] As noted above, weekly hours variables are for "Production" and "Nonsupervisory workers" in the United States, and for "Total employees" in Canada. Given the relatively small number of supervisory workers, especially in retail, we do not expect that this has much effect on the results.

- Z is a vector of seasonal dummies; we ran specifications with and without seasonal controls, but we only report the specifications without controls, for reasons discussed below.

- t is a time trend.

- The specification includes two lagged values each of x and y. [4]

We ran separate regressions for total employment,[5] retail, and grocery, using the same independent variables in each. Total and retail regressions used data from 1987–2009 (Canadian data were only available from 1987 forward); grocery regressions used 1990–2009 data (U.S. subsector data were only available from 1990 forward).

Sources for weekly hours are given in Table 1, and the same sources were used for headcount. Table 2 summarizes the sources for the independent variables.

Table 2 Sources for Independent Variables in Regression Analysis

	United States	Canada	Mexico
Unemployment rate	BLS 2012	Statistics Canada 2010d	INEGI 2010h,i
GDP	BEA 2010a	Statistics Canada 2010e	INEGI 2010f,g

We made two choices with regard to specification that merit further explanation. First, we chose to regress the log of hours, rather than the first difference of the log of hours, on the first difference of log GDP. We made this choice for three reasons: 1) because GDP growth rate is analogous to unemployment in capturing the state of the business cycle at a given point in time; 2) because although GDP can grow indefinitely, weekly hours are constrained above and below; and 3) because using a first-differenced dependent variable would have meant not estimating a time trend in the GDP equations.

[4] The adjusted R2 indicated only very small contributions to explanatory power (on the order of 0.01 in added adjusted R2) from additions of further lags of y or the x variables.

[5] As noted above, because of data availability, "Total" was a true total in Canada, whereas "All private" was a true total in the United States.

Second, we chose to report results without seasonal controls as our preferred specification. Since we are interested in hours trends net of changes in GDP growth rate, whether those changes are seasonal, cyclical, or secular, it makes sense to omit seasonal controls. However, we note that adding seasonal controls does weaken estimates of time trend effects in the GDP equations.[6]

Regression Results

Table 3 shows time-trend results from the regressions. The results are discussed in succeeding sections.

Table 3 Regressions of Log Weekly Hours on Cyclical Variables

	United States			Canada		
	All private	Retail	Grocery	Total	Retail	Grocery
With controls for unemployment *rate*						
Time	–0.00006*	–0.00003*	–0.00006*	–0.0002*	–0.0002*	–0.0003*
	(5.82)	(2.71)	(3.61)	(4.42)	(5.74)	(4.27)
With controls for first difference of log GDP						
Time	–0.0003*	–0.0002*	–0.0003*	–0.0045*	–0.001*	–0.0009*
	(5.44)	(3.80)	(2.52)	(3.66)	(6.69)	(4.59)

NOTE: Absolute value of *t* statistics in parentheses; * significant at the 0.10 level. Without seasonal controls.

FINDINGS: TIME TRENDS IN THE UNITED STATES AND CANADA

Regarding time trends over the period 1987–2009 (1990–2009 for retail food), we expected the institutional shift effect to lead to a trend toward lower average hours in both countries. At least in retail, the cross-national differences in institutional strength led us to expect

[6] Time-trend effects for both countries are affected. It appears the altered time-trend coefficients are an artifact of the start and end years of a relatively short time series. (There is little impact on unemployment equation results.)

U.S. hours reductions to outpace Canadian ones. However, the unexpectedly short hours in Canadian grocery stores (discussed in the "Findings: Levels" section) pointed to a possible flaw in this logic.

Referring to Table 3, we find pervasive downward trends in average weekly hours. Both U.S. and Canadian trend coefficients are negative and significant, in both types of hours models (those with unemployment and those with GDP), across "Total employment," "Retail," and "Retail food." The magnitudes are not negligible. In models estimating weekly hours as a function of unemployment rate and as a time trend, U.S. retail shows a time series coefficient of –0.000027, corresponding to a reduction of 0.2 weekly hours over 20 years. Canada's coefficient of –0.0003 ("Retail") corresponds to a reduction of 1.8 hours over 20 years. When GDP growth is substituted for unemployment, estimated coefficients predict similar reductions of 0.4 hours in the United States and 2.5 hours in Canada. We focus here on sectoral and especially cross-national differences.

Within-Country Sectoral Differences

In both countries, within-country sectoral differences are small and variable across specifications. In the United States, the trend effects are negative and somewhat higher for grocery and for total private employment than for retail. Earlier numbers from the 1960s onward indicate that weekly hours economy-wide have declined over the long haul (Kirkland 2000). As likely sources of decline, observers point to compositional changes in employment—the growth of hospitality/restaurant, retail, and diverse kinds of personal services—sectors with numerous

short hour/part-time jobs. Retail hours were lower than economy-wide averages in the early 1960s and have subsequently declined further, though not at faster rates than average.[7]

Similarly, in Canada the trend effect is negative economy-wide and in subsectors; in this case the economy as a whole shows the strongest downward trends.

Cross-National Differences—Canada and the United States

The Canadian trend effects are larger than those for the United States across sectors and in both specifications (with one exception, for "Total" in the GDP specification). Canadian coefficients are up to 15 times as large as those for the United States. Looking at the raw data, we see that Canada's average weekly hours for all employment fell from 36.0 in 1987 to 35.7 in 2007, though the Canadian figure was still higher than the U.S. total of 34.5. (Although the data series continues through 2009, we take 2007 as an endpoint because more recent years are greatly influenced by the recession.) Over the same period, Canada's rate of part-time employment (defined in that country as work of less than 30 hours a week in the main job) rose from 20.0 percent to 22.8 percent (Statistics Canada 2010a).

Differences in trend patterns are best explored in the context of specific industries because they result from changes in employer practices and regulatory context. In Canadian retail, weekly hours fell by 1.3 hours between 1987 and 2007 (to 32.3 hours).[8] In grocery, statistics beginning in 1990 show a 2.2 hour decline between that year and 2007 (to 30.1 hours). U.S. retail hours fell by 0.8 hours, and U.S. grocery hours fell by 1.9 hours. (Despite Canada's more rapid hours decline, the 2007 levels still stood above the U.S. weekly hours in the same year, 30.2 in retail and 29.6 in grocery).

[7] Retail weekly hours were 37.0 hours in 1964, 33.4 in 1972, and 29.0 in 1999. Retail food hours were 32.8 in 1972 and 29.9 in 1999 (Kirkland 2000, p. 27–28).

[8] The year 2007 is taken as the endpoint because recent years have been greatly influenced by the recession.

For retail as a whole and retail food in particular, we propose that Canadian retailers have adopted labor deployment responses similar in nature to U.S. ones but different in timing and degree. Canadian retailer strategies mirror those of U.S. retailers in many ways, because Canadian retailers too have had to adjust to market saturation, growing suburban sprawl, and the spread of inventory and supply-chain management technologies that tend to be adopted earlier by, and give a competitive edge to, large chains. However, the timing and depth of adoption of cost-cutting and scheduling practices differed.

A number of features of retail operations that are long-standing in the United States were fully implemented later in Canada—during our period of analysis (1987–2009), as compared to before its inception, as was the case in the United States. For example, part-time schedules (under 30 weekly hours) grew in the 1980s but began to be used more systematically in more-recent years than in the United States. Furthermore, Canada adopted long hours of operation later and allowed seven-day operation later than did the United States. In both countries, longer hours of operation have tended to generate the need for large numbers of workers assigned short shifts (and overall short part-time hours) as well as a requirement for workers to be exposed to variable and unpredictable schedules. Canada only began to deregulate opening hours starting in the late 1980s, and Ontario, Quebec, and most other large Canadian provinces only legalized Sunday opening in the 1990s (Kainer 2002, p. 145; Skuterud 2005, p. 1957). In contrast, Sunday opening has been ubiquitous in the United States in most states since the 1980s (Tilly 1996).

Beyond opening hours deregulation, other changes in industry structure and pressure occurred later than in the United States. For retail food and general merchandise, "the Wal-Mart effect"—that is, severe price competition that is also nonunion—hit later in Canada. In the early to mid-1980s, warehouse stores and megastores grew rapidly (Kainer 2002, p. 147, citing

industry sources). Superstores first appeared in mid-1980s. Wal-Mart itself first entered the market in early 1994 with the takeover of 122 Canadian Woolco stores. The effects of its entrance were first felt in the general merchandise segment of retail, and over time they have altered market conditions in retail food. Thus, pressures for stringent reduction of labor costs built up later.

It is important to note that retail food has been heavily unionized historically, but that recent changes have reduced union density. According to industry sources reported in Kainer (2002), from the mid-1980s to the mid-1990s, large supermarket chains found it advantageous to grow corporate franchise outlets ("associated" retailers) because the labor costs of the latter were a lower share of sales (reflective of little unionization) and the format competed effectively with independent stores. Franchises had different staffing patterns from unionized supermarkets. (The trend abated in the mid-1990s.)

Price competition from Wal-Mart itself as well as from other large chains[9] has put sharp pressure on unions to grant supermarket chains concessions on wage levels, job structures (full-time/part-time ratios), and givebacks on employer-sponsored benefits. (Wal-Mart itself has successfully opposed unionization drives and has so far remained union-free.) During the 1990s, at the grocery chains where unions were already in place, management engaged in very forceful efforts to reopen contracts, seeking to win concessions in collective bargaining agreements and to dissolve pattern bargaining (e.g., by obtaining different contract end dates across chains). Most detailed accounts come from industry bargaining in Ontario, Canada's most populous province (Kainer 1999, 2002; Zeytinoglu et al. 2004). These accounts note that management efforts at grocery chains were successful. Changes have been drastic in unionized chains; they

[9] National chain Loblaw, like Wal-Mart, achieves economies of scale and scope by combining food retail and wholesale distribution operations.

occurred over a few years in the 1990s and were paralleled in nonunion chains. Kainer notes that the contractual changes brought shorter hours for both full-timers and part-timers, while increasing the part-time percentage.

In short, we conclude that similar changes in industry practices have taken place in both countries but that in Canada, at least in retail food, change came later, and that it moved faster once it did come. Because the time series used here starts in 1987 and covers a period of significant change in Canadian retail, estimated Canadian hours declines are steeper than for the United States.

Still, this does not fully explain why the Canadian grocery workers' hours average over the full period is lower than that for U.S. grocery workers, especially in light of the fact that, as of 2007, Canadian grocery work hours were *higher* than grocery work hours in the United States. A glance at the actual grocery work hours time series for the two countries (Figures 1 and 2) suggests an intriguing pattern: the United States and Canada started out at similar points, but Canadian hours fell gradually over the entire period, whereas U.S. hours trended upward slightly until 2003 and then deteriorated sharply. 2003 is also the year of the massive Southern California grocery strike, which shifted contract terms in a manner that was unfavorable to workers, arguably marking a turning point for U.S. retail food workers overall. Thus, though Sunday opening hours and the spread of big boxes came earlier to the United States, Canadian grocers may have preceded their U.S. counterparts in aggressively assaulting unions. This pattern calls for additional analysis.

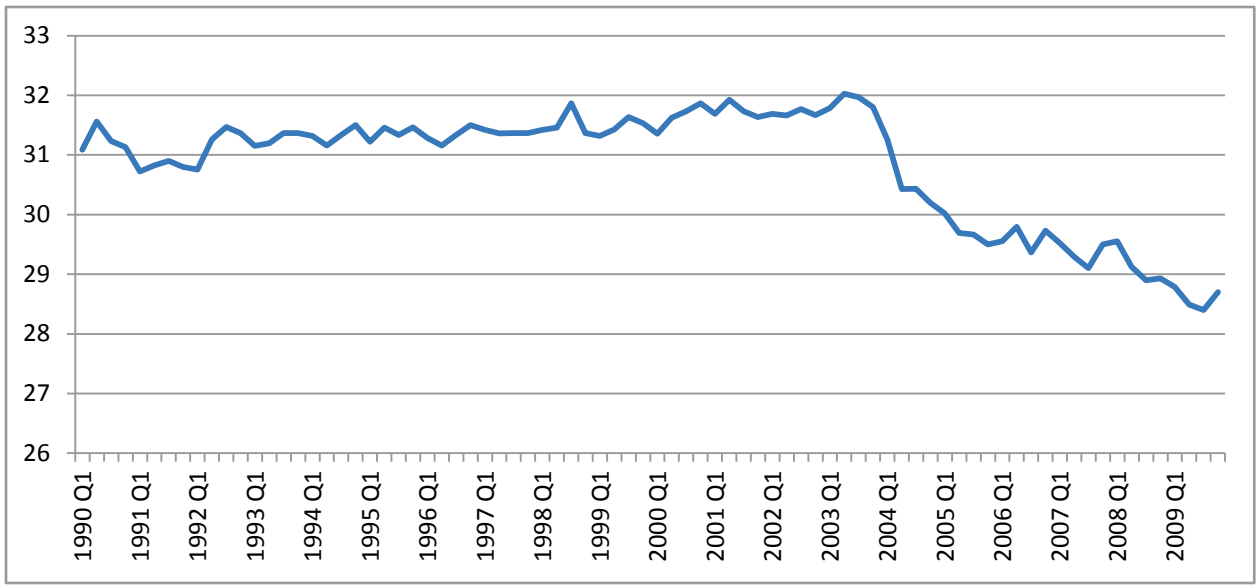

Figure 1 U.S. Grocery Average Weekly Hours, Deseasonalized, 2000–2009.

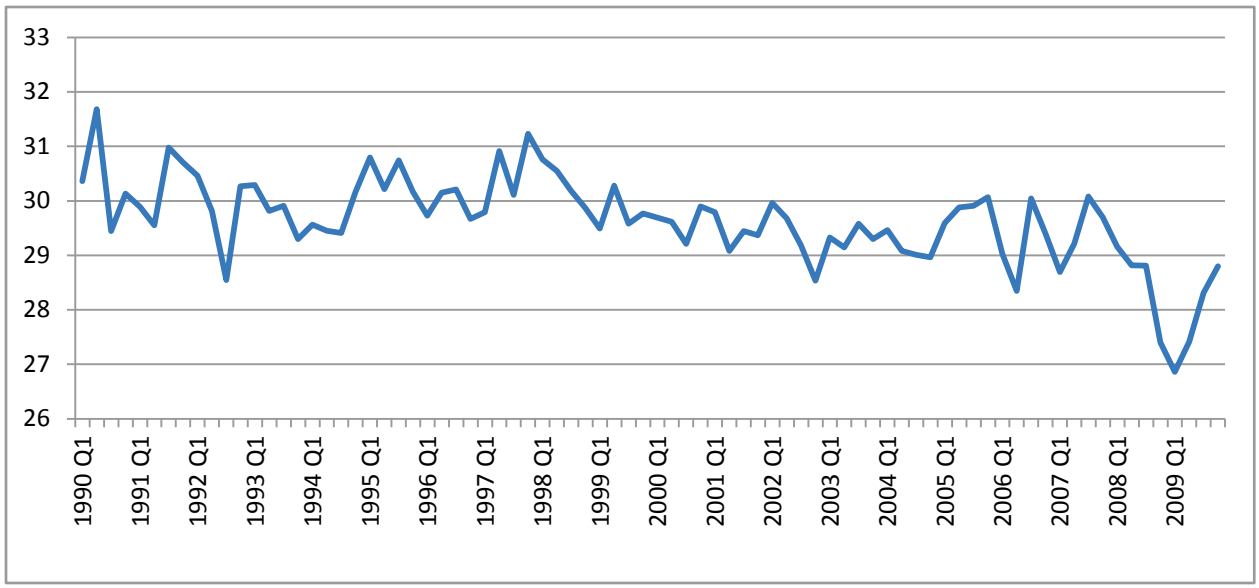

Figure 2 Canadian Grocery Average Weekly Hours, Deseasonalized, 2000–2009.

FINDINGS: TIME TREND IN MEXICO

As we noted earlier, Mexico trend data sources are limited to only a few data points. Additionally, the ENE allows us to look at working hours for all classes of workers combined (employees combined with the self-employed and others), while the Economic Census provides

hours for employees separately; each data set provides useful information. As a result, we draw comparisons across years *within* data sources. We also caution at the outset that in the case of Mexico, variable data quality over time and changing variable definitions and even sampling frames over time render comparisons over time a bit risky in general (Rendón 2003).

The limited number of observations also makes it difficult to separate cyclical from trend effects. To address this limitation, we try to compare hours in different years of relatively brisk growth with each other and hours in years of sluggish growth with each other to get at trends.

Regarding trends, we expected that both institutional shift effects (weakening unions, reduced government enforcement of protective regulations) and squeeze effects (triggered by long-term economic stagnation) would tend to drive a trend toward longer hours, both economy-wide and in retail. Since our thesis is based in large part on employers compelling workers to work extra hours without pay, the expectation that these changes will show up in the data assume that even unpaid extra hours will be reported, a proposition that seems more plausible for the household-reported ENE than for the employer-reported Economic Census. For self-employment and family businesses, as well, we expected squeeze effects to push hours up over the long run.

Trend for 1991 to 2000—All Workers

We examine trends by comparing pairs of earlier and later years that are cyclically similar. Using the ENE, we find evidence for a trend increase in hours, as expected. Average weekly hours for employees *and* self-employed workers grew from 41 to 44 hours between 1991 and 2000, two years that are in upswings and thus comparable. Retail hours also grew, from 43 to 45 hours. These numbers represent noteworthy increases. We are not able, for those years, to tease out work hours of wage employees (mostly in formal firms) from those of the self-employed. Therefore, hours increases could be taking place primarily among the self-employed.

Still, we expect that it is during economic downturns that the self-employed are most likely to increase their hours, and these two years are up-cycle years. Moreover, examination of data from the Economic Census (not shown) shows hours for employees and the self-employed moving in the same direction.

Table 4 Weekly Hours of Work in Mexico, Selected Years

	ENE—total workers		Economic Census—total employees			Unemployment rate	Year-over-year real GDP growth
	Total	Retail	Total	Retail	Grocery		
1991	41.00	42.60				2.69	4.21
1998			49.21	50.92	53.72	3.16	4.96
2000	43.80	45.20				2.20	5.97
2003	44.60	45.80	47.85	54.10	57.79	3.70	1.35
2008			45.90	49.70	53.12	3.97	1.49
Mean of 2003, 2008			46.88	51.90	55.46	3.84	1.42

SOURCE: United States: BLS 2012; Canada: Statistics Canada 2010a,b,c; Mexico: Álvarez Galván and Tilly 2006 (ENE); INEGI 2010a,b,c,d (Economic Census).

Trend for 2003 to 2008—Wage Employees

However, Economic Census data show an unexpected *decline* in hours over time. The Economic Census reports hours for wage employees per se during 2003 and 2008, both slow-growth years. Average weekly hours economy-wide declined from 48 in 2003 to 46 in 2008 for wage employees. In retail, weekly hours of wage employees declined as well, from 54 to 50 hours. Similarly, hours for retail food employees declined from 58 to 53 over these two years. We have more confidence in these numbers because they cover wage workers exclusively.

In sum, preliminary findings on trends for 1991–2008, a period that includes both faster and slower years, do not point to a clear trend, contrary to our predictions. Hours go up, then down. Conceivably, the trend could be stability in work hours, a result that would be congruent with the institutional regulation of work schedules (primarily long standard weeks). If we focus only on the results from the Economic Census that tell us the most about formal retail, the

trend—albeit only in recent years—would appear to be downward, the opposite of what we predicted.

CONCLUSION

Summarizing empirical results

We summarize our findings as follows. Regarding levels, we expected that hours would be lowest in the United States and highest in Mexico, economy-wide but particularly in retail. We rested this expectation on salient institutional differences among the three countries; the effects of these institutional differences would play out disparately economy-wide and across sectors. Our analysis of the levels of weekly work hours over the 1987–2009 period largely confirms our expectations.

Beyond this national ranking, our findings on levels speak to the relation of retail hours to the economy-wide average. Retail hours are lower than the economy-wide average in Canada and the United States but higher than average in Mexico. We interpret this result as reflecting retail's distinctive strategies for control of labor costs and schedules.

In the results on trend effects, we did not find exactly what we predicted. We did find a negative time trend in retail hours in the United States and Canada, reflecting retailers' zealous pursuit of cost reduction strategies in the context of weakening worker-protection institutions, notably retail unions. However, we predicted a stronger time trend in the United States, based on our characterization of the U.S. system as highly permissive of hours reductions, but found instead that the trend is stronger in Canada. As we discussed, the time period 1987–2009 likely captured a time of rapid change in retail staffing patterns in Canada, in a direction parallel to U.S. changes (which came earlier, and then once more gained force in the mid-2000s).

In Mexico, where unique institutions direct retail strategy toward *lengthening* hours, we predicted that the withering of protective institutions, along with long-run stagnation, would lead to a lengthening trend in hours. Mexican results are based on far less evidence than in the United States and Canada. Evidence is mixed on whether hours are trending upward or downward over time.

We have a number of caveats about the analysis and results we present. First, the analysis of U.S. and Canadian trends refers to national-level patterns. But in fact there is variability in the timing—though not the direction—of regulatory change across states and provinces within each country (e.g., Skuterud 2005). A more nuanced account could be developed with closer tracking of these changes at the state or provincial level. Second, specifically for Canada, we have a better understanding of the state of unionized food retail than of the state of discounters, franchises, and nonunion stores overall, simply because many of the published accounts have studied the erosion of working conditions in unionized stores in particular. However, we expect, if anything, that nonunion stores have implemented scheduling and structural changes faster.

Third, Mexico raises a number of thorny issues. The analysis of Mexican statistics is limited by data quality issues that are significant (Rendón 2003). Also, the limited availability of time series data makes the analysis of trends tentative.

Substantively, the major structural change affecting Mexican retail in recent years is the steady shift toward larger, more modern, and more formal establishments (Álvarez Galván and Tilly 2006; Tilly and Álvarez Galván 2006), a trend expected to continue and to affect worker outcomes. Here we do not address this issue because the paper focuses exclusively on employees (dependent employment), whereas the sector most affected by the modernizing trend consists of small/traditional family businesses with few or no wage employees. In order to maintain

comparability with the United States and Canada, we focused on wage employment and overlooked this more dramatic trend.

Also, we do not fully understand a number of detailed patterns in Mexico, including the role of modern retail and whether its practices are migrating to other retail formats. Importantly, there may additionally be different staffing patterns within the sector of retail that hires most wage employees (formal retail, usually modern).

Fourth, we lack separate statistics for nonsupervisory workers in Canada. Average hours for the whole workforce reflect higher hours for managers. Similarly, trends in average hours may in part reflect changes in hours of managers and supervisors, especially in small retail outlets.

Despite some unexpected findings and a healthy-sized list of caveats, we believe the body of evidence presented here makes a strong case for the importance of national institutions in shaping the level and trend of weekly hours. While we noted from the outset that retail is in some ways an extreme case because of its particular needs to cover long opening hours and wide swings in customer flows, we believe a similar logic can be applied to other industries; the economy-wide results offer some support for this belief. These regularities point not only toward an understanding of how work schedules are set, but also toward possible levers for ameliorating this important dimension of job quality. We now examine some of these possibilities.

Policy Options: United States

Making a difference for retail workers entails shifting the hours regime and/or mitigating the consequences of job limitations for workers. Any policy change under consideration must take account of interactions among institutional factors, available workforces, and retailer competitive strategies.

In the United States, institutional features that historically had maintained hours levels and predictability—store hour restrictions and collective bargaining—have been removed or weakened. They have been partially undone in Canada and could conceivably be restored. For Mexican retail workers, the most significant area in which to effect change is the enforcement of labor standards.

Several approaches might bring improvement for U.S. retail: instituting parity, or reducing differentials, in compensation between full-time and part-time workers; limiting store hours, or at least halting the ubiquitous pressure to move toward 24/7 operations; and compelling changes in business practices that would change decision terms for labor deployment.

Altering decision terms for store management would be most effectively achieved by reducing the substantial cost differentials between full-time and part-time workers, a change that would have to be effected through economy-wide policy changes. A floor of health insurance coverage would reduce this differential.

It is unclear, as of now, how the 2010 health insurance reform (the Patient Protection and Affordable Care Act) will affect the cost differential between full-time and part-time workers and retailers' staffing decisions. A "large employer" mandate to cover full-time workers is scheduled to come into force in 2014; it would apply a penalty to the employer for each full-time worker who was not provided affordable health insurance and who relied on a tax credit to pay the premium under the individual mandate. The head count of how many full-time versus how many part-time workers a firm employs will not come into play in exempting employers from the mandate because a threshold of 50 full-time equivalents will define "large" employers. The full-time threshold of 30 or more weekly *usual* hours over the year may raise implementation issues for retailers who routinely schedule ostensibly "part-time" workers for over 30 hours on a

week by week basis. (These issues are being raised in IRS technical releases.) It remains to be seen whether this clause compels de facto eligibility for these workers. Also to be seen is whether—with the gradual reduction of the full-time standard to as little as 32 hours among retailers—some retailers may simply assign the bulk of their workforce to usually scheduled hours below 30 in order to avoid providing coverage or paying the penalty. Currently, health coverage for full-timers is discretionary and thought to induce employee retention and commitment; once rendered a mandate, it may lose appeal as a human resource management tool. In this latter case, the mandate could be argued to foster short-hour (under 30) staffing practices.

Still, the universal-coverage goal of the reform lessens the deleterious implications of being part-time, relative to the prereform system, because part-timers will gain access to a health insurance floor through insurance exchanges and subsidies. At the same time, as an unintended consequence of this new alternative, the mandate may stunt an incipient trend among a few large retailers to cover part-timers in their company plan.

Like health insurance, mandated paid-time-off minima (e.g., sick time or vacation) would contribute to reducing the cost differential between part-time and full-time workers.

Also, given that entry-level retail wages are pegged at, or a bit above, the minimum wage, a higher real value of the minimum wage would also reduce incentives—as well as opportunities— to organize work and staff stores in ways heavily reliant upon large numbers of low-paid workers willing to flex up to 40 hours. Higher hourly wages may reduce worker availability to work extra hours on short notice, a labor supply effect. A higher minimum wage has decreasing ripple effects up the wage structure (Metcalf 2004; Wicks-Lim 2006). Therefore,

its effect is to compress the wage distribution, so it will likely contribute to reducing hourly cost differentials between entry-level part-timers and higher level full-timers.

The Mexican day-based minimum wage is a provocative notion to consider. Would having such a minimum wage make a difference in the use of part-time in the United States? And, within a different context—that of seven-day operation and a 40-hour overtime standard—would it be feasible? Retail might be able to implement two kinds of minimum wages: an hourly and a daily wage, each suited for different settings. The notion of a daily minimum could also give rise to "show-up" pay practices whereby a minimum daily amount of hours/pay is guaranteed, eliminating managerial incentives to implement schedules with short hours distributed throughout the week. This could build on provisions for "reporting time pay" in California, New York, and other states (California Department of Industrial Relations 2012). Such provisions set minimum compensation for employees who come to work and are sent home after working fewer hours than in their standard shift. Restoring some form of regulation of store hours (historically called "blue laws" and instituted for religious reasons) may slow down what observers have called the "arms race" of opening hours. Mandating shift differentials for Sundays and holidays as well as late-night hours might compel changes in store hours and scheduling practices. Such mandates might prompt the exploration of a greater array of store formats, with different patterns of opening hours. In turn, this broader range of options could alter staffing practices and help reduce the reliance on high volumes of low-wage workers. Operating a subgroup of smaller stores, open long hours, would enable larger stores to close for some hours. Separating out a section of the store into a "convenience store" format with extended opening hours would similarly reduce the managerial challenge of "coverage" (and free up resources). Inventory control and market analyses may also facilitate the design of "product

packages" that are suited to nonstandard opening hours shopping. To some extent, large chains such as Wal-Mart and Tesco/Fresh & Easy have begun this exploration with small-store formats that cater to convenience and specialty food needs.

A look at the experiences of four European countries with retail scheduling also expands the range of possibilities for U.S. retailers to consider. Whereas the common practice in U.S. grocery stores is for managers to inform their workers of their schedule three days to (rarely) two weeks in advance, Western European retailers give more advance notice. Collective bargaining agreements in Germany require 26 weeks' notice, while those in Denmark require 16 weeks' notice. Although these requirements are breached regularly, practice remains a far cry from U.S. short-term notification (Carré et al. 2010). Also, French retail collective-bargaining agreements have set a minimum weekly hours limit of 26 hours. The agreement makes significant exceptions, and most cashiers work under that threshold. Yet the minimum acts as a deterrent; whereas in the United States 18 percent of retail workers usually work less than 15 hours per week and 34 percent work less than 20, in France only 10 percent and 16 percent, respectively, do so (Askenazy et al., forthcoming).[10]

Of course, implementation of the approaches we suggest for the United States could also be achieved through collective bargaining, were union membership in the industry to grow, or to extend to newer retail formats such as big box stores.

Policy Options: Canada and Mexico

For Canada, policy goals should include finding means to slow, or possibly reverse, the convergence of the managerial model for work hours with the U.S. retail model. In practice, this would mean maintaining some of the institutional dimensions that have created "firewalls"

[10] U.S. numbers (for 2007) computed from the March 2007 Current Population Survey; French numbers (for 2006) from Esbjerg, van Klaveren, and Voss-Dahm (2010).

between existing practices and a relentless race to reduce total labor costs. These institutional factors have included greater rates of collective bargaining coverage, minimum wages that have retained some value over time, and some policy questioning of 24-hour store opening times as well as differential compensation for holiday and weekend work.

In Mexico, effective enforcement of existing labor standards could potentially both improve formal retail jobs and "formalize" some informal jobs, thus possibly helping to raise standards for all workers. A combination of worker voices, administrative action, and reform of quasijudicial labor tribunals would be needed. Reform of labor laws to reduce direct government and company control over unions and support independent unions would significantly enhance the voice of the workers.[11]

On the administrative front, a Mexican federal government initiative to strengthen the inspection system that would mirror the Dominican Republic's system could have far-reaching effects. In the latter system, inspectors have scope over a wide variety of business regulations. They work with employers, even providing technical assistance, to achieve compliance rather than rely on sanctions (Schrank and Piore 2007). This combination needs to be coupled with a highly professional inspectorate and a government commitment to enforcement.

The last resort for Mexican (formal) workers to seek enforcement of labor laws is the tripartite Local Conciliation and Arbitration Tribunals. Belarmino (2011) and others propose replacing the structure, considered to be slanted against worker complaints, with a true judicial process that would be more independent. Such reform would provide another leverage point for meeting legal mandates.

[11] Independent unions or coalitions anchored by worker centers could, for example, negotiate with large chains for improved compliance with labor standards (e.g., less unpaid overtime) in return for agreeing to longer opening hours.

Final Remarks

The motivation for conducting this research is that insufficient hours of work represent a chronic problem in the US retail sector and in other service work. The evidence strongly suggests that differences in labor market laws and other institutions help to explain short and shrinking hours of work in retail in the United States and Canada, and long work hours in Mexico. Thus, institutional changes may hold the potential to mitigate schedule-related problems in all three countries. Further consideration of these issues, and further use of international comparisons to understand them in more detail, can help researchers and policymakers to come up with feasible solutions to work-schedule problems in the three countries.

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