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# The Potential Effects of Federal Health Insurance Reforms on Employment Arrangements and Compensation

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## **The Potential Effects of Federal Health Insurance Reforms on Employment Arrangements and Compensation**

**Upjohn Institute Working Paper No. 15-228**

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### **ABSTRACT**

The Affordable Care Act (ACA) presents an opportunity to significantly improve compensation for American workers. A potential concern, though, is that employers will circumvent the employer mandate by increasing their use of workers in staffing arrangements that are not covered by the mandate: workers averaging less than 30 hours per week, working on a temporary basis, or working in organizations with fewer than 50 full-time employees. In this paper, we shed light on the likely effects that the ACA will have on employment arrangements. We first examine how part-time employment in Massachusetts changed after its health insurance reform, which is similar to the ACA in many ways. We find, contrary to prior research, that the Massachusetts reform resulted in modest increases in part-time employment among low-educated workers. We then identify the characteristics of employers and employees most affected by the ACA's employer mandate. For the period 2010 to 2012, we estimate that workers who were not offered health insurance at their workplaces but whose employers would be required to offer health insurance under the ACA made up about 5 percent of the workforce and that reducing average weekly hours worked may be relatively straightforward for employers in industries with the largest concentrations of these workers (e.g., retail trade and accommodation and food services). We also point to recent industry patterns of involuntary part-time employment and temporary help use that are consistent with these potential effects of the employer mandate.

JEL Codes: I13, J3

Key Words: Affordable Care Act, temporary help, part-time

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Even before the Great Recession, the U.S. labor market showed signs of weakness, as evidenced by declining labor force participation and employment rates and stagnant or deteriorating real wages and benefits. Job creation during the recovery has been slow in comparison to past postrecessionary periods, contributing to further deterioration of labor market conditions for middle- and low-skilled workers and growing income inequality. Although the Obama Administration made inequality and the weak labor market conditions that are its underpinnings the centerpiece of its domestic agenda, traditional policies to address these problems—such as fiscal stimulus and minimum wage increases—lack the bipartisan support necessary for federal policy action.

The implementation of the Patient Protection and Affordable Care Act (ACA), in contrast, presents an opportunity to significantly improve compensation, particularly for low-wage workers. Employer-sponsored health insurance represents an important component of compensation, though its incidence was declining sharply prior to ACA, both because fewer employers were offering this benefit and because employers have passed along higher premium costs to employees, resulting in fewer taking health insurance when offered (Vistnes, Simon, and Taylor 2010). The ACA, passed in 2010, requires most employers to offer their employees “affordable” health insurance coverage. Under the law’s provisions, employers with at least 50 full-time workers are required to offer health insurance coverage to those who work at least 30 hours per week, or otherwise pay a penalty of \$2,000 per worker after the first 30 workers. Additionally, employers offering coverage will have to pay \$3,000 per employee for each employee who signs up for subsidized coverage on the exchanges.

Although the employer mandate in the ACA is intended to increase employer-sponsored health insurance and thereby improve workers’ compensation and the quality of jobs, some are

concerned it could backfire. In theory, to the degree that employees value the health insurance benefit offered, employers may pass along the premium costs to workers in the form of lower real wages or reduced benefits. However, employers' ability to decrease pay may be constrained by the minimum wage. Moreover, employers may avoid cutting nominal wages because of adverse effects on morale and productivity, and inflation may not be a viable mechanism to reduce real wages if the relatively low rates of price growth of the recent past persist.

Alternatively, large employers may increase their use of workers in staffing arrangements that are not covered by the employer mandate: workers averaging less than 30 hours per week or working in organizations with fewer than 50 full-time employees. Federal rules stipulate that to determine work hours for a particular employee, an employer may use up to a 12-month "look-back" period to establish whether an employee works an annual average of 30 hours per week. As a result, employers will not be required to offer insurance to many, if not most, on-call and temporary workers. To circumvent the mandate, therefore, employers may choose to reduce standard weekly hours below 30 or shift their mix of staffing toward greater use of on-call, direct-hire temporaries, or agency temporaries. Additionally, employers may choose to outsource certain tasks to firms with fewer than 50 full-time employees. Ironically, the employer mandate could reduce the quality of jobs for many low- and middle-skilled workers by increasing the share of low-hours part-time, temporary, and contract employment, which often are associated with relatively low compensation and job instability.

Reflecting such concerns, a July 2013 letter from three of the largest labor unions to Congressional leaders argued that the law will "shatter not only our hard-earned health benefits, but destroy the foundation of the 40-hour workweek that is the backbone of the American middle class" (Roy 2013). The union leaders argued, and some public accounts confirm, that employers

would be incentivized to keep or cut workers' hours to below 30 hours per week to avoid the obligation to provide insurance. Similarly, industry analysts predict a boost to temporary help firms from the ACA (Hancock 2013a).

In this paper, we seek to shed light on the likely effects the ACA employer mandate will have on employment arrangements. The employer mandate, which was originally expected to take effect on January 1, 2014, was delayed until January 1, 2015, for employers with 100 or more full-time employees, and until 2016 for those with 50–99 full-time employees (Kennedy 2014), and thus, any evidence on its actual effects is limited. Prior research on similar employer mandates in Hawaii and Massachusetts, however, has reported mixed results on the effects of such mandates on part-time and agency temporary employment. We anticipate that any effects of the ACA employer mandate are likely to be concentrated among low-wage, low-skilled workers. We present new evidence that suggests there were modest increases in part-time employment among low-educated workers following health care reform in Massachusetts, and we in turn assess the potential effects of the ACA employer mandate.

Comparing the Massachusetts and ACA reforms, we argue that incentives for employers to shift their mix of staffing arrangements may be greater under the ACA reform. Relative to Massachusetts prior to health care reform, employer penalties for noncompliance under the ACA are generally higher, and public support for the reform is far lower. While we estimate that about 16 percent of workers who are not offered employer-based health insurance will be covered by the mandate, they represent around 5 percent of the workforce, or 7 million workers. These workers—whose employers will be required to offer them an affordable health insurance option in 2015 or 2016—are the most vulnerable to changes in their employment arrangement. Over half of them report working less than 40 hours per week, and almost half report working in retail,

accommodations, or food services. Given that many of these workers are close to the 30-hour threshold or are working in industries that make extensive use of short-hours part-time workers—that is, workers who are guaranteed relatively few weekly hours but are expected to “flex up” to a 40-hour workweek on demand—cutting worker hours may be a particularly attractive option to many employers wishing to sidestep the mandate. Involuntary part-time employment, which spiked during the recession, has been slow to fall, especially in these sectors. This finding is consistent with greater use of part-time employment in response to the employer mandate, though more time is needed to determine any effects of the mandate on part-time employment and other staffing arrangements.

The remainder of the paper is organized as follows. In the following section we review the theory on employee compensation and the effects of employer mandates, and after that we provide background on the magnitude of and trends in part-time, temporary, and contract employment and on employers’ use of these arrangements to lower benefits costs. In the next section we provide a detailed comparison of the Massachusetts health insurance reform with the ACA, which was modeled on the Massachusetts reform. Following that we review prior research on the effects of the employer mandates in Hawaii and Massachusetts on employment arrangements, and present new evidence of the effects of the Massachusetts mandate on part-time employment. We then examine the possible effects the ACA will have on employment arrangements, pooling data from March Current Population Surveys to estimate the industry and hours distributions of workers who will be covered by the employer mandate but who currently are not offered a health insurance option at their workplace. We review preliminary descriptive evidence that is consistent with the ACA having some effect on staffing arrangements. We conclude with a discussion of policy implications of our findings.

## **THEORY ON BENEFITS COMPENSATION AND EMPLOYER MANDATES**

### **Background on Benefits Compensation**

In considering the effects of health care reform on wages and employment arrangements, we first look more generally at what labor market theory implies about employer choices in compensating workers. One theoretical perspective suggests that employers should be indifferent as to how total compensation for workers (wages or salaries and benefits) is apportioned between wages and other forms of compensation (Lettau and Buchmueller 1999). In fact, Lee and Warren (1999) suggest that employer provision of nonwage benefits may initially appear illogical, in the sense that firms could convert cost savings from eliminating benefits into increases in wages that employees could then use to purchase the forms of nonwage compensation that they value most. Nonetheless, some nonwage benefits may be provided more cheaply by employers, and if they are valued by employees, there may be potential gains to both from arranging a total compensation package that includes some combination of wage and nonwage benefits (Summers 1989). For example, Gruber and McKnight (2003) point to the 1940s ruling by the IRS that allowed health insurance costs to be deductible for employers while not treating them as taxable income for employees as a major incentive to employer provision of group health insurance. In addition, some benefits that may be attractive to workers—such as sick leave, paid vacation, and flexible work hours—can only be provided through the employer. Employers that are competing with other firms for workers will attempt to develop compensation packages that balance the goals of keeping labor costs low and increasing the value of compensation to workers they desire to attract.

The costs of nonwage benefits have risen dramatically over time, however, from just 3 percent of total compensation in 1929 to 30 percent in 2013, with rising health insurance costs



contributing substantially to the total (Bureau of Labor Statistics [BLS] 2014; Schultz and Doorn 2009). The coverage and generosity of employer-sponsored health insurance benefits accordingly has fallen considerably, because of declines in both offer rates in small firms and in take-up rates of offered coverage in both large and small firms (Vistnes et al. 2010). One of the primary factors contributing to the decline in take-up rates is increased employee premium contributions (Cutler 2003; Farber and Levy 2000), which Vistnes et al. show have recently risen faster for family and employee-plus-one coverage. Raising employee contributions toward the cost of these benefits is one way that firms might reduce labor costs, as firms can then ostensibly provide health insurance only to those with greater tastes for it and possibly return some of the cost savings to employees in the form of higher wages. IRS nondiscrimination rules limit employers' ability to selectively offer health insurance benefits, and dropping coverage for all workers would make a firm less competitive in hiring (Schultz and Doorn 2009).

Lettau and Buchmueller (1999) analyze the extent to which different types of nonwage benefits offered by employers might constitute "quasi-fixed costs," that is, where the costs vary by the number of workers rather than by hours worked, which has potential implications for how employers structure their labor forces in order to manage labor costs while maintaining productivity. Their empirical analysis supports the supposition that the costs of most benefits are proportional to the number of hours worked, with the exception of health insurance. They find that health insurance is the only benefit for which the average per-hour cost is significantly greater for part-time workers (by 18 percent); the cost for other legally required benefits (e.g., Social Security and Medicare) is just 2 percent higher on average.

## **Theory on Employer Mandates**

Although under the ACA large employers will be required to provide health insurance benefits to employees working more than 30 hours per week, employers will not necessarily pay the cost of this benefit. Employers may be able to shift some or all of the health insurance costs onto workers. In a theoretical work on mandated benefits, Summers (1989) argues that any mandated benefit will function like a tax at a rate equal to the difference between the employer's cost of providing the benefit and the employee's valuation of it—that is, a mandated benefit only functions like a tax on employers to the extent that the employer's costs of providing the benefit are not equal to the employee's willingness to pay for it. If employees fully value the new benefit, theory predicts that they will bear its costs through lower wages or other forms of reduced compensation.

In practice, however, even if employees fully value the benefit, employers' ability to shift its costs onto workers in the form of lower wages may be constrained by minimum wages or union contracts. In addition, in a period of low inflation such as currently exists, employers may need to cut nominal wages in order to reduce real wages to cover the benefit cost; nominal wage cuts can have significant adverse consequences on worker morale and productivity. Moreover, recent empirical evidence suggests that at the premium rates that employers have recently been charging for health insurance benefits, take up of those benefits has been declining in both small and larger firms. In other words, there appears to be a growing gap between employer costs and employees' willingness to pay for these benefits.

If employers are unable to fully shift the cost of the mandated benefit onto workers, they may pass along the costs to consumers in the form of higher prices, potentially reducing demand for their products and resulting in lower employment levels. Alternatively, employers may seek to reduce the number of workers subject to the mandate by implementing changes in the way

they staff. Employers may increase hours of some full-time employees and reduce hours worked below the 30-hour threshold for others. They also may hire temporary workers or outsource tasks to small contract companies. Workers in organizations with fewer than 50 employees are not covered by the mandate, and as discussed further below, although temporary workers with sufficiently long hours and prolonged assignments may be subject to the mandate, typically they will be exempted. Theory provides no clean predictions of the employment effects of the mandated health insurance benefit. How employers respond, therefore, is an empirical question. Schultz and Doorn (2009) review the existing literature on how employers respond to increases in health insurance costs or health insurance mandates and find some shifting of the costs of health benefit coverage to workers through lower wages. Gruber (1994), for example, finds evidence that mandated maternity benefits lower the wages of demographic groups likely to use the benefit. Kolstad and Kowalski (2012a) study the effects of the Massachusetts' mandate for employer-sponsored health insurance and finds that employers complying with the law lowered wages by an average of \$6,058 annually, and that this compensating differential was only slightly smaller in magnitude than the average cost to employers of providing the insurance, suggesting that employees valued the benefits and thus were willing to accept lower wages. Other research has found evidence that increases in health insurance costs or mandated health insurance benefits leads to increases in hours worked (and overtime labor) among those with health insurance coverage and increases in the percent of workers who do not qualify for benefits. (See Schultz and Doom [2009] for a review of the literature.)

## **BACKGROUND ON PART-TIME, TEMPORARY HELP, AND CONTRACT EMPLOYMENT**

### **Evidence on the Use of Alternative Arrangements to Lower Benefits Costs**

As noted, a central question posed in this paper is whether the ACA may be expected to significantly increase employers' use of alternative staffing arrangements in order to circumvent the health insurance mandate. Large employers could evade the mandate for some workers by reducing the hours regular staff work, by contracting out certain tasks to smaller firms, or by using a greater mix of temporary and on-call staffing.

A large research literature has examined the many and diverse reasons organizations use part-time, temporary, and contract employment arrangements. While a full review of the literature is beyond the scope of this paper, common sense points to the most prevalent reasons organizations cite for using these arrangements. Staffing needs in many organizations lend themselves to part-time schedules. For example, in retail, a store may wish to bring in additional staff during peak hours, or, given opening hours, it may be unable to staff exclusively with employees on 40-hour per week schedules. In the same way, organizations typically use direct-hire or agency temporaries to meet increased staffing needs during temporary periods of higher demand or to fill in for absent employees. Contractors are often used for their specialized expertise. (See Cappelli and Keller [2013] for a recent review of the literature.)

We are particularly interested in organizations' use of part-time, temporary, and contract employment to save on benefits, in particular, health insurance costs. The federal government seeks to encourage companies to offer employees health and retirement benefits through the tax code. However, in order to ensure that such tax breaks are not used simply to grant highly compensated individuals tax deferred in-kind income in the form of generous health and retirement benefits, the Employment Retirement Income Security Act and nondiscrimination

clauses in the IRS tax code require that such benefits broadly benefit an organization's employees. While these rules exempt employees who work less than what is deemed as regular or full-time hours in the organization, if an organization provides these benefits to some full-time employees, it is legally difficult for the organization to avoid providing benefits to other full-time employees. Therefore, if an organization wishes to avoid paying benefits to certain groups of workers, it may hire them on a part-time or temporary basis. Alternatively, it may hire them through an intermediary such as a temporary help agency or other contract company; under such arrangements the temporary agency or contract company, not the client organization using the workers' services, is legally the employer.

It is widely believed that savings on health insurance and retirement benefits is one factor affecting certain organizations' decisions to use or expand their use of part-time, temporary, contract workers. Analyses based on cross-sectional data that examine associations between an organization's use of part-time, temporary agency, or other contract staffing and the level of benefits offered to regular, full-time employees have yielded mixed results. (See, for example, Cappelli and Keller [2013]; Houseman [2001].) Because these analyses likely do not fully control for other factors that affect an organization's staffing patterns, it is difficult to tease out the effects of benefits costs or to interpret significant findings as causal.

One study examines an organization's change in staffing in response to an increase in health insurance costs. In an analysis of the Medical Expenditure Panel Survey-Insurance Component (MEPS-IC) data (1996–2004), Schultz and Doorn (2009) find that a 1 percent increase in spending on health insurance benefits is associated with 3.7 percent increase in part-time workers (when health insurance coverage is not offered to part-time employees). In addition, they find that a 1 percent increase in employer health insurance contributions is

associated with a 1.44 percent increase in the demand for low-wage workers and a 5.75 percent decrease in the demand for high-wage workers.

Case studies provide many examples in which organizations are motivated to use alternative staffing arrangements, in part to save on wages and benefits. For instance, recent trends among public school systems to hire substitute teachers through temporary help agencies enable them to shed retirement benefit costs for these workers (Houseman and Heinrich 2015). Hiring production workers through temporary help agencies and bus drivers, janitors, and cafeteria workers through contract companies are other examples where public and private organizations have realized substantial savings on wages and benefits costs through the use of these alternative staffing arrangements (Erickcek, Houseman, and Kalleberg 2003).

### **Magnitude and Trends in Staffing Arrangements**

Data on hours worked are regularly collected as part of the Current Population Survey (CPS). The rate of part-time employment (officially defined as less than 35 hours per week) is highly cyclical, rising during downturns as employers cut both employment levels but and average hours, and falling during recoveries. But part-time employment has evidenced little sign of trend growth over the last several decades. Reflecting the especially weak labor markets of the Great Recession, part-time employment jumped to nearly 20 percent of all employment in 2010, its highest level in three decades (Figure 1). The rate of part-time employment has been slow to decline during the recovery, and it is unclear whether the persistently high rates reflect continued weakness in the labor market or a structural change.

The most reliable national-level data on temporary help employment come from the BLS establishment survey, the Current Employment Statistics program. Figure 2 plots temporary help employment from 1989 to the present. During the high growth period of the 1990s, temporary

help doubled its share of aggregate employment from 1 to 2 percent. The dramatic growth in temporary help employment was driven in large part by manufacturers, who made agency temp workers a permanent part of their staffing strategies. Stagnation of the temporary industry in the early 2000s, in turn, reflected problems associated with manufacturing and the offshoring of production (Dey, Houseman, and Polivka 2012). Note that especially in the last two recessions, which are shaded in the graph, the temporary help industry has borne a disproportionate share of the job losses. That industry, however, has experienced a strong jobs recovery since 2010—much stronger than that of the aggregate economy—and its employment is at record levels both in numbers and as a share of aggregate employment. Although some structural increase in temporary help employment appears to have occurred in recent years, the industry’s strong cyclical patterns make it difficult to assess the extent of any structural change.

Data on other types of contracting out are not systematically collected in government statistics. Using various data from the BLS, the U.S. Census Bureau, and other sources, the Bureau of Economic Analysis constructs annual input-output tables for the economy that, in principle, capture all contracting relationships across industries. Research based on these input-output tables points to a strong trend increase in domestic contracting out since the 1990s (Yuskavage, Strassner, and Medeiros 2008). The Contingent Worker Supplement to the CPS, which was conducted five times between 1995 and 2005, collected information on instances in which individuals worked for a company that contracted out his or her services to another organization or worked on an on-call basis or day laborer basis. Data from the CWS suggest that about 1 percent of workers were employed with contract companies and another 2 percent worked on an on-call or day laborer basis during this period.

Having reviewed recent trends in staffing arrangements and set out some of the theoretical arguments and empirical evidence concerning how employers adjust their compensation and staffing arrangements in response to health insurance cost increases and benefit mandates, we turn our focus to the implementation and implications of health care reforms in Massachusetts and under the ACA. We begin with essential background on these reforms and how they compare.

## **BACKGROUND ON HEALTH REFORMS**

### **The Massachusetts Health Reforms**

Because of high levels of employer-sponsored health insurance and an expansive Medicaid program, almost 90 percent of Massachusetts residents had health insurance even before the Massachusetts health insurance reform. Massachusetts also had a system for providing care to the uninsured whereby uninsured residents could receive care from hospitals and community health centers that would be paid for by the state's Uncompensated Care Pool, which was financed by taxes on insurance premiums and paying hospital customers. However, insurance rates had begun to fall in the early 2000s, and health care costs continued to rise. These factors put more pressure on the hospitals providing the uncompensated care and threatened the entire system, leading to calls for health care reform beginning in late 2004 (see Holahan and Blumberg [2006] for a review of prereform Massachusetts). Amidst debate about health care reform, Massachusetts Governor Mitt Romney laid out his initial plan to reform the insurance system in November 2004 (Romney 2004). In fall 2005, both the Massachusetts House and the Senate had passed health insurance reform bills, and in April 2006, Governor Romney signed the legislation. The goal of the reform was to attain nearly universal coverage by expanding



Medicaid, subsidizing insurance purchased through the individual market, and mandating that individuals purchase coverage and employers provide it.

Implementation of the reform was staggered. Medicaid changes were the first to go into effect (Kolstad and Kowalski 2012b). Beginning in July 2006, Medicaid was expanded to cover children with family incomes up to 300 percent of the federal poverty level. Enrollment caps for certain Medicaid programs were raised, and outreach programs were initiated to encourage eligible people to sign up for coverage.

Beginning in 2007, employers with more than 10 employees were required to provide coverage to all employees who worked at least 35 hours per week (McDonough et al. 2006). Employers who did not offer affordable coverage by July 2007 had to pay a penalty of \$295 per employee in October 2007. The \$295 penalty stayed constant for the duration of the employer mandate. Insurance was considered affordable if the employer offered to pay at least 33 percent of the premium cost or if at least 25 percent of full-time employees were enrolled in the plan. The vast majority of employers complied with the law. In 2010, 4.6 percent of employers who were required to provide coverage were penalized for noncompliance (Goodnough 2012).

As of April 2007, individuals without employer-sponsored health insurance or Medicaid can purchase coverage through the Connector, an online marketplace created by the reform that allows individuals and small businesses to compare and purchase private insurance that meets coverage and cost standards. With few exceptions, the Massachusetts law required individuals to have health insurance as of July 1, 2007. The penalty for not doing so was initially \$219 in 2007 and 50 percent of the cost of the least expensive plan starting in 2008. People earning up to 300 percent of the federal poverty level would be provided with subsidized coverage. Approximately

67,000 people were assessed the penalty in 2007, and around 44,000 people were assessed the penalty in 2010 (Conaboy 2012).

The law underwent changes in 2008 and 2010. In 2008, various cost containment measures were introduced that included automating medical records and restricting pharmaceutical marketing (Kingsdale 2009). In 2010, an open enrollment period was instituted so that people could only sign up for insurance on the Connector during a few months of the year. In 2013, the employer-mandate was repealed because of the upcoming federal mandate (Conaboy 2013).

Various studies have found that the reform reduced the uninsured population in Massachusetts. Long (2008) uses data from the 2006 and 2007 Massachusetts Health Reform Surveys to estimate the increase in coverage during the first year after the reform. As of fall 2006, the surveys showed that 13 percent of Massachusetts adults aged 18–64 were uninsured. By fall 2007, Massachusetts experienced a 5.6 percentage point drop in the uninsured population. Long finds that roughly half of this change came from employer-sponsored insurance and half came from other coverage. For adults with family income less than 300 percent of the poverty level, she found a 10.5 percentage point drop in the uninsured population. Using CPS data on insurance coverage through 2008, Kolstad and Kowalski (2012b) document an increase in employer-sponsored coverage of 3.5 percentage points, an increase in Medicaid of 3.5 percentage points, and an increase in insurance coverage of 5.7 percentage points.

Survey data have found that employers in Massachusetts tended to support the reform. Gabel, Whitmore, and Pickreign (2008) find that a majority of firms agreed that employers should bear at least some responsibility for providing health insurance to employees. However,

around 25 percent of small firms said that it was at least somewhat likely that they would limit salary increases so that employees could maintain eligibility for the subsidies.

Researchers have studied the effects of these coverage changes on a variety of outcomes and have found that they led to increases in health (Courtemanche and Zapata 2014; Long, Stockley, and Dahlen 2012), decreases in emergency room visits (Kolstad and Kowalski 2012b; Miller 2012), decreases in nongroup premiums (Graves and Gruber 2012), and increases in preventative services (Kolstad and Kowalski 2012b).

### **The Affordable Care Act**

In the decades before the passage of the ACA, health spending had been growing as a percentage of GDP and of household expenditures. From 2000 to 2010, health care costs rose from 13.4 percent of GDP to 17.4 percent (Centers for Medicare and Medicaid Services 2014). During the same time period, the growth in health care spending eroded much of people's real wage gains (Auerbach and Kellermann 2011). Meanwhile, the percentage of people without insurance also was rising as insurance costs continued to grow (Kaiser Family Foundation 2013a). These factors led many people to push for health care reform.<sup>1</sup> During the 2008 presidential election, health reform was a major part of Barack Obama's platform. In March 2010, Congress narrowly passed the ACA with votes generally along party lines, and President Obama immediately signed the bill into law. Like the Massachusetts reform, the ACA features employer and individual mandates, an expansion of Medicaid, and subsidies for those purchasing coverage in the individual market.

The ACA employer mandate requires that companies with 50 or more full-time employees offer affordable coverage to their employees or face a penalty. The definition of full

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<sup>1</sup> In fact, people had been pushing for health care reform for many years, and previous attempts were made to reform the health care system, perhaps most notably under the Clinton administration in 1993.

time under the ACA is working 30 hours or more per week. The ACA's definition of affordable coverage is that the insurance plan must pay for at least 60 percent of covered health care expenses, and employees must pay no more than 9.5 percent of family income for the coverage. The penalty for noncompliance is \$2,000 per employee after the first 30 employees. Even if employers offer health insurance, they will still be subject to a \$3,000 fine for each employee who signs up for subsidized coverage through the exchanges.

The individual mandate requires nearly everyone to have health insurance or pay a penalty. The penalty for not having insurance in 2014 is the maximum of \$95 per uninsured person or 1 percent of household income over the filing threshold, but it grows in successive years until it reaches the minimum of \$695 per uninsured person or 2.5 percent of household income over the filing threshold.

The individual marketplace, which allows people to compare plans on a single website, opened in 2013. The ACA issued several reforms for the individual market as well, including requiring insurers to accept all who apply for coverage, restricting the number of factors that could be used for pricing, and requiring certain coverage. In 2014, the ACA expanded Medicaid so that households with incomes below 133 percent of the federal poverty level would qualify. However, because of a 2012 Supreme Court ruling, states will not lose federal funding if they refuse to extend Medicaid, which was originally part of the law (Liptak 2012). To make insurance more affordable for people whose employers do not offer insurance and who are ineligible for Medicaid, the ACA provides subsidies for those making up to 400 percent of the federal poverty level.

Although originally scheduled to be effective January 1, 2014, the employer and individual mandates have been delayed in various ways. In July 2013, the employer mandate was

delayed until 2015, and in February 2014, the requirement for employers with 50–99 full-time employees was delayed again until 2016 (Kennedy 2014). For individuals who had their plans cancelled in 2013 because of the ACA, the full individual mandate was delayed until 2015 (Ritger 2013).

While the Massachusetts health insurance reform enjoyed wide support in the state, the nation as a whole is more divided on health care reform. The constitutionality of the ACA has been challenged in federal courts, and Republicans in Congress made many attempts to repeal the legislation (Liptak 2012). While a majority of Massachusetts businesses were supportive of health insurance reform, many national businesses have voiced complaints about the ACA. According to a 2013 survey of employers, 88 percent of the employers surveyed thought the ACA would increase their costs, 4.7 percent reported already having adjusted hours so that fewer employees qualify for insurance, and 11.1 percent have reported that they will adjust hours in the future (Mrkvicka et al. 2013).

As many aspects of the ACA are still in the process of being implemented, most of the research on the ACA thus far has been on its potential effects. Researchers expect that the ACA will increase insurance and lower underinsurance rates (Schoen et al. 2011), reduce out-of-pocket spending (Hill 2012), and result in doctor shortages in some areas (Hofer, Abraham, and Moscovice 2011; Huang and Finegold 2013). One of the first components of the ACA to go into effect was an extension of dependent coverage until the age of 26, which has been studied extensively. This research has found that extending dependent coverage was successful in raising coverage for young adults (Antwi, Moriya, and Simon 2013; O’Hara and Brault 2013; Sommers et al. 2013).

## **Comparison of Massachusetts and Affordable Care Act Reforms**

Table 1 provides a comparison of the Massachusetts health insurance reform and the ACA. The reforms have very similar structures; however, various policy parameters differ. The ACA's definition of small employers is larger than the definition under the Massachusetts reform, while the weekly threshold for full-time status under the ACA is 30 hours (vs. 35 hours in Massachusetts). Even with exempting the first 30 employees, the penalty to employers for not offering insurance will be higher under the ACA than under the Massachusetts law. The ACA's definition of affordable coverage is based on health care expenses and family income, while the Massachusetts reform's definition is based on the premium the employee pays or the percentage of employees who sign up for coverage.

Unlike with the Massachusetts reform, however, observers have expressed concern that the ACA may contain loopholes that allow employers to avoid offering generous coverage to low-wage employees (Hancock 2013b; Weaver and Mathews 2013). Under the ACA, employers are required to pay for 60 percent of covered health care expenses; however, large employers are exempt from the essential minimum benefits and can exclude many services from being covered. Although employers will still be subject to the \$3,000 fine for each employee who signs up for subsidized insurance through the exchanges, offering bare-bones plans and paying fines for individual workers may allow them to avoid the \$2,000 fine for all employees without drastically increasing their health insurance costs.

Comparing the size of the individual penalties is also difficult because Massachusetts ties the penalty amount to the plan with the lowest premium, while the ACA ties the penalty to people's income. Wealthier individuals will face a higher penalty under the ACA, but not under the Massachusetts reform. Both reforms created online marketplaces to facilitate purchases directly from insurance companies for people without employer-sponsored coverage. The ACA

subsidizes a greater share of people purchasing coverage through the exchanges than the Massachusetts reform did and exempts a smaller share for poverty reasons. It expanded Medicaid by expanding eligibility, while the Massachusetts reform expanded Medicaid by increasing enrollment caps for various Medicaid programs. The ACA added new regulations for the individual market, such as making it guaranteed issue and restricting the factors that insurance companies could use in pricing. Massachusetts, meanwhile, had similar provisions in place since 1996.

### **Employee Coverage under the ACA Employer Mandate**

There are many exemptions to the employer mandate in the ACA. As noted, the ACA only requires employers with more than 50 full-time staff to provide employees working more than 30 hours per week with affordable health insurance or potentially pay a penalty. In addition, many employees work variable hours or work on a temporary basis. Although these employees may work more than 30 hours in a particular week, it was deemed unreasonable to require an employer to provide health insurance for employees who averaged less than 30 hours per week or who were expected to be employed for a short time period. To address this concern, the final rules under the ACA specify a look-back period of up to 12 months for variable-hour employees. The rules also provide additional guidance to staffing firms for making variable-hour determinations by indicating the factors that should be considered in making those decisions (i.e., recognizing the wide variability in types of assignments and unknowns at the start of assignments). The final ACA rules also allow employees with a break in service of 13 weeks or more to be treated as new employees.

As a result, while a staffing agency or employer directly hiring workers on a short-term basis may be required to offer their temporary employees health insurance under the ACA, most

temporary workers will fall outside the mandate. Using data from a large national staffing firm, Houseman and Heinrich (2015) find that only a small minority of temporary help workers averaged more than 30 hours per week over the course of the year. Consistent with this finding, staffing firms report that the employer mandate is expected to have little impact on their costs (Hancock 2013a).

## **THE HEALTH REFORM IN MASSACHUSETTS: EMPIRICAL EVIDENCE OF THE EFFECTS ON STAFFING PATTERNS**

Given the similarities between the two pieces of legislation, the recent experience in Massachusetts may provide insights into how part-time work changes after firms are required to provide health insurance to full-time workers.<sup>2</sup> To examine changes in part-time work after the Massachusetts health insurance reform, we draw on data from the monthly CPS data files. We include everyone in the sample between the ages of 18 to 64 from 2000 to 2013. Part-time employment is coded to follow the definition set by the Massachusetts health insurance reform—people working less than 35 hours. We exclude from the sample anyone with imputed hours and anyone who is self-employed and weight all analyses using the CPS weights.<sup>3</sup> Table 2 compares characteristics of our sample of Massachusetts residents to the rest of the nation. A notable difference is that Massachusetts residents have a higher average education than the rest of the

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<sup>2</sup> Although similar, the Massachusetts and ACA health reforms differ in several respects. The penalties are larger under the ACA, and Massachusetts employers tended to be more supportive of insurance reform. For these reasons, one might suppose that any increase in part-time employment would be larger in response to the ACA employer mandate than occurred in response to the Massachusetts health reform. On the other hand, the part-time threshold was higher in Massachusetts than in the ACA, arguably making it somewhat easier for Massachusetts firms to cut hours below the threshold. Additionally, if employers can offer bare-bones coverage and expect that their employees will not sign up for subsidized coverage, the ACA may have smaller effects on part-time work than the Massachusetts legislation had on part-time employment in that state.

<sup>3</sup> We obtain similar results if we do not use the CPS weights and if we keep observations with imputed values and the self-employed.



nation. Nearly 40 percent of Massachusetts residents have a college degree, while less than 30 percent of the rest of the nation does.

A challenge in studying the Massachusetts reform is that the Great Recession began soon after it was passed. Figure 3 shows unemployment for Massachusetts compared to the rest of the nation and suggests that the recession's effects were less severe in Massachusetts than in the country as a whole. A failure to account for economic conditions in the estimation strategy would result in attributing the effects of a less severe Great Recession to health insurance reform. For this reason, in addition to accounting for the Great Recession by including time fixed effects, we control for the monthly state unemployment rate in all regressions.<sup>4</sup> Because the unemployment rate is endogenous with the employment rate, we also restrict the sample to employed individuals. To calculate changes in part-time and full-time work after Massachusetts's health insurance reform, we estimate the following equation:

$$y_{ist} = \gamma_t + \phi_s + \alpha X_{ist} + unemployment_{st}\lambda + implementation_{st}\theta + reform_{st}\beta, \quad (1)$$

where  $t$  indexes the year and month of the observation,  $s$  indexes the state,  $i$  indexes the individual,  $y$  is an indicator for the individual working part time,  $\gamma$  is a vector of time fixed effects,  $\phi$  is a vector of state fixed effects,  $X$  is a vector of individual controls that includes education, age, sex, and race,  $unemployment$  is the unemployment rate in state  $s$  and month  $t$ ,  $implementation$  is an indicator for the individual being observed in Massachusetts from July 2006 to June 2007, and  $reform$  is an indicator for the individual being observed in Massachusetts in July 2007 or later. The  $\beta$  coefficient captures how, conditional on being employed, the likelihood of working part time changed for Massachusetts after the reform compared to how it

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<sup>4</sup> We have tested for the robustness of the results to controlling for unemployment in a variety of ways, such as including unemployment squared and controlling for separate unemployment rates by educational attainment. Results are similar in these alternate specifications.

changed for the control group. In other words, we estimate the effect of the Massachusetts reform on the mix of full-time and part-time employees.

To adjust for the fact that the basic monthly CPS interviews the same person up to eight times, we cluster standard errors at the individual level. We choose this level of clustering to be conservative.<sup>5</sup> But as there are concerns about understating standard errors when there are few treated states, we also assess statistical significance based on a series of placebo estimates, following Buchmueller, DiNardo, and Valletta (2011), who assess the statistical significance of their estimates of the effects of Hawaii's 1974 health insurance reform by comparing the Hawaii estimate to the distribution of a series of placebo estimates.<sup>6</sup> To generate the placebo estimates, we reestimate Equation (1) but set the *implementation* and *reform* variables equal to 1 for each state and Washington, DC, separately. This procedure gives us 50 placebo estimates of  $\beta$ . We would be concerned about our ability to estimate an effect of the Massachusetts reform if many of the placebo estimates were similar in magnitude to the Massachusetts estimates. For each positive estimate of the effect of the Massachusetts reform, we report the percentage of placebo estimates larger than the estimate. For each negative estimate, we report the percentage of placebo estimates smaller than the Massachusetts reform.

There are reasons to believe employers may have more of an incentive to adjust hours for lower-educated workers than they do for higher-educated workers. As explained above, because of the minimum wage, employers may be constrained in their ability to reduce wages of low-paid

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<sup>5</sup> Other research on the Massachusetts reform has often clustered standard errors at the state or state-year level. When we calculate standard errors in either of these ways, our standard errors become much smaller, but the null hypothesis of no effect is rejected for a greater share of placebo laws as well.

<sup>6</sup> Statistical inference is not straightforward when applying a difference-in-differences strategy to study the policy change of only one state. Bertrand, Duflo, and Mullainathan (2004) demonstrate how serial correlation can lead to drastically understated standard errors of the difference-in-differences estimator if not taken into account. They suggest accounting for serial correlation by clustering standard errors, but other research shows that clustering standard errors when there are few treated clusters can exacerbate the downward bias in estimates of the standard errors (Buchmueller, DiNardo, and Valletta 2011; Conley and Taber 2013).

workers. Employers may also have more of an incentive to change the part-time status of low-paid workers because providing lower-wage workers with health insurance would represent a larger percentage change in their overall compensation than it would for higher wage workers. Finally, higher-wage workers are more likely to have health insurance even before the reforms, since overall compensation is correlated with health insurance. In the year before Massachusetts underwent reform, 68 percent of people with college degrees working 35 hours or more per week had insurance through their own employers, while only 51 percent without college degrees had insurance through their own employers. These numbers suggest the potential for a larger effect on the hours of lower-educated workers. Thus, we show results for different education levels separately in addition to showing estimates of Equation (1) for the full sample.

The main estimates are shown in the top panel of Table 3. Workers without a college degree are 1.9 percentage points more likely to work part-time hours in Massachusetts after the reform, which represents a 9.8 percent increase in part-time work for those without a college degree. The estimate for Massachusetts is larger than all of the placebo estimates. Employees with a college degree experience no effect of health insurance reform on the likelihood that they work part-time hours.

In the middle and bottom panels of Table 3, we present two sets of estimates to examine the sensitivity of the main results. First, we restrict the sample to only New England states. With this alternative control group, the coefficient on the Massachusetts reform rises in absolute value for employees without a college degree but is similar to the original estimate. Next, we construct a synthetic control group for Massachusetts using the method described in Abadie, Diamond, and Hainmueller (2010). With the synthetic control method, we aggregate the data to the state-by-year level and then select the combination of states that most closely matches Massachusetts

based on part-time status and the control variables from January 2000 to June 2006. Following Fitzpatrick (2008) and Courtemanche and Zapata (2014), we then multiply the CPS weights by the shares obtained from the synthetic control method.<sup>7</sup> The results from implementing the synthetic control method are shown in the third panel of Table 3 and provide corroborating evidence that workers without a college degree were more likely to work part-time hours after the Massachusetts health insurance reform. The estimated effect of the Massachusetts reform on the incidence of part-time employment among workers without a college education is 1.9 percentage points in this specification, which is the same as the original specification. All estimates of the effect of the reform on those without a college degree are statistically significant at conventional levels.

A possible concern with these results is that controlling for unemployment and only focusing on the employed may not be sufficient to fully account for the Great Recession and that low-skilled Massachusetts workers may have been differentially affected by the recession. A related concern is that there may have been a preexisting trend toward more part-time employment among low-skilled Massachusetts workers. To consider these possibilities, we estimate the following equation:

$$y_{ist} = \gamma_t + \phi_s + \alpha X_{ist} + unemployment_{st}\lambda + \sum_{k \in K} mass_s^k \beta_k,$$

where  $mass_s^k$  is an indicator variable equal to one in Massachusetts in year  $k$ ,  $K$  is the set of all years in the data other than 2005, and all other variables are defined as in Equation (1).  $\beta_k$  can be interpreted as the difference in the incidence of part-time work between Massachusetts and the rest of the nation for year  $k$ , relative to the difference in the 2005 base year, which is zero by

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<sup>7</sup> The synthetic control group for Massachusetts for the full sample consists of Connecticut, Vermont, and Washington, DC. The control group for people with a college degree consists of Alaska, Connecticut, Minnesota, Rhode Island, and Washington State. The control group for only people without a college degree consists of Connecticut, Minnesota, and Rhode Island.

construction.<sup>8</sup> Figure 4 displays coefficients from a regression that uses the rest of the nation as the control group and coefficients from a separate regression that uses the rest of New England as the control group. The difference between part-time work in Massachusetts and both control groups remains steady until 2006. Coincident with the law being passed in 2006, part-time work began to increase in Massachusetts relative to the rest of the nation and to the rest of New England. The coefficients fall during 2008 and 2009 as all states experienced an increase in part-time work during the Great Recession and then increase again after the trough of the Great Recession. Although disentangling the Great Recession from the Massachusetts reform is difficult, Figure 4 suggests that the Great Recession is not the cause of the increase in low-skilled part-time work for Massachusetts relative to the rest of the nation.

Although analysis in Dubay, Long, and Lawton (2012) comparing trends in part-time employment in Massachusetts with that in several comparison states did not show sizable differences in growth, that study did not examine trends among low-educated or low-wage workers, where we believe any impacts would be concentrated. Our estimates are consistent with those of Buchmueller, DiNardo, and Valletta (2011), who find a modest shift by employers toward (exempt) part-time work (approximately 1.4 percentage points) in the two decades following Hawaii's introduction of an employer health care mandate.

The effect, if any, of the Massachusetts health reform on employers' use of temporary staffing is particularly hard to disentangle because the industry is highly cyclical, and the Massachusetts reform was implemented on the eve of the Great Recession. Silber and Condra (2013) show that from 2005 to 2007, temporary help employment increased by 13.9 percent in Massachusetts compared to just 2.2 percent for the country overall, despite the fact that overall

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<sup>8</sup> The difference in the incidence of part-time employment in Massachusetts relative to the rest of the country in 2005 is captured by the state dummy variables.

growth in Massachusetts was weaker than in the aggregate economy. The authors point out that this pattern suggests a secular factor contributed to the growth of temporary help employment in the state during the period, which coincided with the implementation of health care reform.

## **PREDICTING THE EFFECTS OF THE ACA ON EMPLOYMENT ARRANGEMENTS**

The evidence from Massachusetts suggests that health insurance reform in that state may have been associated with modest increases in part-time and temporary help employment. The ACA reforms were modeled on those in Massachusetts, although, as noted, differences between the two could affect the share of employers and employees affected by the mandates—if employers are covered by the mandate—as well as the incentives they have to comply, pay the penalty, or evade the mandate by shifting work to alternative staffing arrangements. For those employers not in compliance with the health insurance mandate, the ACA assesses much stiffer penalties. This fact coupled with the lower support among employers nationally for the reform suggests that there could be greater shifting of work to short-hours part-time or alternative staffing arrangements than occurred in Massachusetts. In this section, we examine the characteristics of employers and employees most affected by the ACA mandate. In view of these characteristics, we then consider possible responses of employers to the ACA mandate, along with limited and preliminary evidence of their responses.

### **Who Is Affected by the ACA Employer Mandate?**

The National Compensation Survey (NCS), administered by the BLS, and the Medical Expenditure Panel Survey, administered by the U.S. Census Bureau in cooperation with the U.S. Department of Health and Human Services, collect data on the characteristics of employers, whether employers offer certain groups of workers health insurance benefits, and the take-up rate

among employees offered health insurance coverage. Published statistics from these surveys, however, do not permit estimates of the gap between the number of employees who are currently offered employer-sponsored health insurance and the number who should be offered employer-sponsored health insurance if the ACA were in effect.

To generate such estimates, we use data from the March supplements to the Current Population Survey (CPS), which among other things collect information for the preceding year on whether a worker has health insurance through their employer, the size and industry of the employer, and the average weekly hours worked. To estimate the number of workers offered health insurance by industry, we divide the number of employees in a particular industry reporting that they obtain health insurance through their employers, as reported in the March CPS, by the industry-specific health insurance take-up rate (the ratio of the number of employees with health insurance through their employer to the number offered the health insurance option), as reported in the National Compensation Survey. To increase the sample size on which these estimates are based, we pool data from the 2010, 2011, and 2012 March CPS.<sup>9</sup>

From the March CPS, we estimate that on average about 43 million, or one-third of the employed, were not offered health insurance through their places of employment from 2010 to 2012. Under the ACA, however, only employers with at least 50 full-time employees will be required to offer health insurance and only to employees averaging 30 or more hours per week. Using data on employer size and weekly work hours, we estimate that only about 16 percent of those not offered employer-sponsored health insurance would be covered by the ACA mandate,

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<sup>9</sup>We use March 2013 industry-level estimates of health insurance take-up rates from the National Compensation Survey, <http://www.bls.gov/ncs/ebs/benefits/2013/ownership/private/table05a.pdf>. The estimates are for nonfarm, private sector establishments. We assume average take-up rates of nonfarm private sector establishments for workers in agriculture and public administration.

or 7 million workers. These workers represent about 5 percent of the workforce and arguably are the most vulnerable to some change in their employment status.

We should note several caveats to these estimates. The CPS asks household respondents to report the total number of employees in the organization, not the number of full-time employees. As a result, a small percentage of the workers whom we consider covered by the ACA employer mandate may work in organizations with fewer than 50 full-time employees. In addition, an estimated 2–3 percent of workers are in direct-hire temporary positions and another 2 percent work for temporary help agencies. Most of these workers will not average at least 30 hours per week on the job over the year, and thus employers will not be required to offer health insurance to them. Together, these factors would result in an overestimate of the number of workers covered by the ACA employer mandate who are not currently offered health insurance. On the other hand, our industry level take-up rates include firms of all sizes. Take-up rates are likely somewhat higher in the large firms subject to the ACA mandate, which in turn would result in an understatement of the number covered by the ACA mandate but not currently offered health insurance. With these caveats in mind, Table 4 displays estimates of the distribution of these workers by weekly hours worked and firm size. First, it is notable that almost three-quarters of the individuals not offered employer-sponsored insurance but covered by the ACA employer mandate work in organizations with 100 or more employees. Although smaller firms are less likely to offer their employees health insurance, many more workers are employed in large organizations. In addition, although 85 percent of those exceeding the 30 hours per week threshold report weekly hours of 40 or more, about half of those who would be covered by the ACA employer mandate but who are not offered employer-sponsored health insurance work between 30 and 39 hours per week. This finding reflects the fact that the offer of health insurance



drops sharply with hours worked and suggests that, in order to be compliant with the new law, many employers will have to extend health insurance coverage to employees previously classified as part time. Alternatively, because these workers are already close to the weekly hours threshold, employers may choose to reorganize work so as to reduce workers' average annual weekly hours, either by cutting hours worked each week or by hiring workers on a temporary or on-call basis directly or through an intermediary.

The industry distribution of workers who should be covered by the employer mandate but who are not currently offered employer-sponsored health insurance also provides insights into potential employer responses to the mandate. We estimate that almost a quarter of the affected workers are in retail trade, while another 18 percent are in accommodation and food services. These industries are characterized by extensive part-time and on-call work; in firms with 50 or more employees, the share working less than 30 hours per week is 22 percent and 28 percent in retail and in accommodation and food services, respectively. It may be relatively straightforward for many employers in these industries to circumvent the ACA mandate by reorganizing work to reduce average weekly hours worked by staff.

We break out Employment Services, which is mainly composed of the Temporary Help Services industry, from the Professional and Business Services sector in Table 4. Interestingly, although in the CPS the number of workers in Employment Services is only about 8 percent of the number in the rest of Professional and Business Services, the estimated number of workers not receiving an offer of health insurance from their employers but averaging 30 or more hours per week is roughly the same in the two—about 460,000.<sup>10</sup> As noted, however, to the extent that

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<sup>10</sup> The number of workers reporting employment in Employment Services in the CPS is roughly half that in the BLS payroll survey, the Current Employment Statistics program. It is generally believed that most of the difference reflects underreporting in the CPS, because although workers are legally the employees of the temporary or other staffing agencies, they frequently report the client company as their employer.

Employment Services workers are in temporary assignments, their employers may not be required to offer them insurance.

In sum, we estimate that the number of workers who currently are not offered a health insurance option at their workplaces but whose employers will be required to offer such an option under the ACA represents about 5 percent of the workforce. Theory suggests that employers who comply with the ACA will pass along much of the cost to workers by reducing wages or other benefits. Yet, cutting nominal wages and benefits can be difficult, with adverse effects on worker morale and productivity, and, if the low inflation of recent years persists, employers' ability to reduce real wages by granting small or no nominal wage increases will be limited.<sup>11</sup> Additionally, in contrast to Massachusetts, where health care reform enjoyed broad support, the ACA has been divisive, with many employers appearing philosophically opposed to complying with the law, as evidenced by the July 1, 2014, Supreme Court decision allowing owners of closely held, private companies to exclude contraceptive care in their company health insurance plans.

### **Preliminary evidence on ACA's likely effects on staffing arrangements**

These factors coupled with the relatively high penalties for noncompliance may push some employers to alter their staffing patterns to circumvent the mandate. The majority of workers affected by the mandate but not currently offered health insurance work less than 40 hours per week, and in sectors like retail, accommodations, and food services, employers may find it relatively easy to adopt modest changes in staffing patterns to reduce workers' average weekly hours below the 30 hours per week threshold. Additionally, because employers with

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<sup>11</sup> Using CPS data, Graham-Squire and Jacobs (2013) identify 2.2 million workers they deem most vulnerable to reduction in hours as those who are currently working 30–36 hours per week, who do not receive health insurance through their employer, and who fall below 400 percent of the federal poverty level.

fewer than 50 full-time employees are exempt from the mandate, larger employers may find it attractive to subcontract certain tasks to smaller employers. Finally, employers may sidestep the mandate by increasing their use of temporary workers either by hiring workers on a temporary basis directly or by working through an agency.

Early reports and anecdotal evidence on employer responses to the anticipated ACA health insurance benefit mandate suggest some employer substitution of part-time (benefits ineligible) workers for full-time workers among new hires or of reductions in worker hours to below 30 hours per week. Until July 2013, when the delay in the employer mandate was announced, the first half of 2013 was a look-back or measurement period for employers, which would determine the number of full-time equivalent employees that an employer would be obligated to offer coverage. As the beginning of the mandate shifted to January 1, 2015, for employers with at least 100 full-time equivalent employees, 2014 became the look-back period for those employers, during which we would expect them to continue to make workforce adjustments in expectation of higher health insurance benefit costs. (The effective date of the mandate for employers with 50–99 full-time workers is January 1, 2016.) As of January 31, 2014, one organization, Investor’s Business Daily, had compiled a list of more than 400 public and private employers for which it claims there is “strong proof” (i.e., official documents or accounts) that these employers have cut work hours from full- to part-time or reduced hours of new hires to be less than 30 in order to circumvent the health insurance benefit requirement.<sup>12</sup> And in an article describing actions by cities, counties, public schools, and community colleges to reduce the work hours of part-time employees to avoid paying for their health insurance under ACA, a school superintendent commented: “Are we supposed to lay off full-time teachers so that

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<sup>12</sup> See a list of the employers and the changes made and/or number of workers affected with dates of the reports at: <http://news.investors.com/politics-obamacare/020314-669013-obamacare-employer-mandate-a-list-of-cuts-to-work-hours-jobs.htm>.

we can provide insurance coverage to part-time employees?” (Pear 2014). Typical responses among some of these public sector employers have been to reduce part-time work hours from 32–35 to 29 hours, just below the 30-hour cutoff established by the law.

Other indirect evidence comes from recent trends in part-time employment. Although the unemployment rate has dropped sharply during the recovery period, the rate of part-time employment has remained stubbornly high, as shown in Figure 1 (see also Roberson and Terry [2015]). In its assessment of the likely labor market effects of the ACA, the Congressional Budget Office (2014) predicts an increase in part-time employment, but “almost entirely because workers will choose to supply less labor,” owing to the availability of affordable health insurance on the exchanges and other incentives they will face. If workers are choosing to work fewer hours, then the persistently high rate of part-time employment during the recovery could be the product of two countervailing trends: the fall of involuntary part-time employment for economic reasons and the rise of voluntary part-time employment. In fact, however, the current high rate of part-time employment stems from the fact that involuntary unemployment has fallen very slowly during the recovery, particularly in industries with historically high rates of part-time employment.

We examine these patterns in greater detail in Figure 5, which uses monthly data from the Current Population Survey to depict the rates of voluntary and involuntary part-time employment for economic reasons in selected sectors: accommodation and food services, retail trade, education and health care, professional and business services, and manufacturing.<sup>13</sup> These

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<sup>13</sup> If respondents work less than 35 hours per week, the survey asks if they prefer full-time work. If they respond that they do, then respondents are asked why they are working part-time. In the data reported in Figure 3, we only classify workers as involuntarily part-time if they are working part-time for economic reasons, e.g., because their employer cut their hours or because they can only find part-time work. We count those who state that they would prefer full-time employment but are working part-time for personal reasons (e.g., because of school or family responsibilities) as voluntary part-time.

sectors account for over three-quarters of the workers identified in Table 4 as not being offered employment-based health insurance, but subject to the employer mandate and so vulnerable to a change in employment status. Voluntary part-time employment in all sectors is seasonal but displays no cyclical or trend growth. In contrast, involuntary part-time employment for economic reasons spiked in all sectors in 2008 and, except in manufacturing, remains well above prerecession levels. Figure A.1 confirms that most of the increase in involuntary part-time employment was among those working less than 30 hours per week.<sup>14</sup>

The growth in and persistently high levels of involuntary unemployment are especially striking in accommodation and food services and in retail trade. From Table 4, prior to the implementation of the ACA employer mandate, particularly large numbers of employees in these sectors were employed in large firms, were working between 30–39 hours, and were not offered employer-sponsored health insurance. Above, we argue that employers in these sectors might find it relatively easy to adjust usual hours below the 30 hour per week threshold, and the patterns of involuntary part-time employment in Figure 5 are consistent with such a response. In contrast, such a response is less likely in manufacturing, where work is less amenable to part-time hours and, prior to implementation of the employer mandate, the majority of employees for whom the mandate would be binding were working 40 or more hours per week. The fact that by 2014 involuntary part-time employment was only slightly above prerecession levels is consistent with a prediction that manufacturing employers seeking to evade the ACA employer mandate will likely turn to other staffing arrangements. With respect to use of temporary help workers,

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<sup>14</sup> Figure A.1 shows the rates of involuntary part-time employment broken out two ways: 1) involuntary part-time rates among those with fewer than 30 weekly hours and with 30 or more weekly hours, and 2) involuntary part-time rates among those with 30 or fewer weekly hours and with more than 30 hours. Respondent answers on weekly work hours tend to bunch at even intervals, and it is likely that some with weekly hours slightly less than 30 report working 30 hours. The first comparison shows that a substantial majority of the increase in involuntary part-time employment occurred among those who reported working fewer than 30 hours. The second comparison shows that virtually all of the increase in involuntary part-time employment occurred among those reporting 30 or fewer weekly hours of work.

some industry analysts predict that staffing agencies will receive a boost from the ACA mandate (Hancock 2013a; Silber and Condra 2013). The temporary help industry absorbed disproportionate job losses during the Great Recession; employment declined by more than 30 percent compared to the 6 percent employment decline in the economy overall. During the recovery, however, temporary help employment has expanded at a considerably faster pace than overall employment, and today the number and share of workers in temporary help employment is at record levels (Figure 6).

Further analysis using data from the Occupational Employment Statistics (OES) program shows that employment growth in the Employment Services industry (which is composed largely of temporary help services) has been driven by employment in production occupations. Between 2007 and 2013 (the most recent year for which OES data are available), the share of production workers employed in the Employment Services industry rose from 6.9 to 8.0 percent.<sup>15</sup>

Production workers in the Employment Services sector are primarily utilized by manufacturers (Dey, Houseman, and Polivka 2012). While various factors could account for the large relative increase in the number of production workers hired through staffing agencies, the passage of the ACA in 2010 may be a contributing factor. Definitive evidence on the effects of the ACA on temporary help and other staffing arrangements, however, can be found only once employers have fully adjusted to the mandate. In conclusion, we consider issues for future research.

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<sup>15</sup> Data for more disaggregated industries are not publicly available. It should be noted that published OES data incorporate data for three years; 2013 figures, for example, represent an average of data collected in 2011, 2012, and 2013. Therefore, published OES estimates for 2013 are centered on 2012 and estimates for 2007 are centered on 2006. To estimate the share of production employment in the Employment Services industry, we benchmark overall industry employment to the CES and use the OES to estimate the occupational distribution of employment within an industry. See Dey, Houseman, and Polivka (2012) for details.

## SUMMARY AND POLICY IMPLICATIONS

We set out in this paper to provide an initial understanding—and a framework for thinking about—how many and which employers and employees are likely to be directly affected by the provisions of the ACA employer mandate to offer health insurance coverage. Data currently available for discerning the impacts of ACA are fairly limited, and there will be an ongoing need for research to better understand to what extent employers and employees are affected by the ACA employer mandate as the law’s provisions continue to roll out. New questions to monitor the implementation and effects of the ACA are being introduced to the MEPS-IC, but it will be years before those data become available for analysis.

The employer mandate in the ACA has prompted much concern that employers will sidestep the mandate by reducing work hours below the 30 hour per week threshold, by hiring more temporary workers directly or through agencies, and by contracting out work to firms with fewer than 50 employees. The fear is that the mandate, which is intended to benefit workers, could instead result in the degradation of jobs, particularly those of the low educated. To address that concern, the Save the American Workers Act of 2015 (formerly a 2014 Act, H.R. 2575), passed by the U.S. House of Representatives on January 8, 2015, with bipartisan support (H.R. 30), proposes to modify the ACA by redefining full-time work as 40 hours per week, in effect, restoring the “standard” definition of full-time work (Howell 2014). While reducing the employer obligation to provide health insurance, the intent of H.R. 30 is to lessen employer incentives to cut back on employee work hours or use alternative staffing arrangements to avoid the mandate. Many employers already offer health insurance benefits to employees working less than 40 hours per week, and thus, supporters of the bill argue that it is unlikely that they would increase those thresholds in order to reduce the number that qualifies for coverage. The White

House Office of Management and Budget counters that H.R. 30 would undermine the ACA by shifting more costs to taxpayers and leading more employers to drop or to not expand health insurance coverage (Executive Office of the President 2014).

Whether the definition of full-time work should remain at 30 hours, change to 40 hours, or follow the Massachusetts definition of 35 hours per week (or some other alternative) is a question that would benefit from further empirical examination. However, as we noted above, the data from the MEPS-IC that would allow us to address this question—i.e., on employer-offered health insurance benefits (including part-time and temporary employees), the minimum hours an employee must work per week to be eligible for employer coverage, and employee costs associated with receiving coverage—are not currently publicly available. Our present analysis with available data does not allow us to identify a threshold at which the trade-offs between employer costs of expanding access to insurance and worker costs as reflected in terms of their employment contracts (i.e., hours, wages and job security) would be minimized.

Other proposals for reform would eliminate the mandate altogether or establish other incentives for employers to help cover uninsured employees. A recent Urban Institute brief (Blumberg, Holahan, and Buettgens 2014) argues for eliminating the ACA employer mandate, citing among other factors the perverse incentives the ACA gives firms to hire more short hours part-time workers or to keep employment levels below the 50-worker threshold. Mulligan (2013) points out that under the Massachusetts health reform, employers not offering health insurance coverage were encouraged to set up “125 plans,” in which the employers provided support to facilitate and administer employee payments for health insurance plans, but the premium payments came (pretax) from employee paychecks. Employees could also purchase health insurance coverage for their families, addressing a concern under the ACA employer mandate



that an offer of affordable *individual* employer-sponsored coverage to an employee disqualifies the employee's entire family from subsidized exchange coverage, even if family coverage is not affordable. Under a policy that would require a fixed percentage of employer spending on health insurance benefits, such as that suggested by Jost (2014), employers might be further incentivized to use options such as the "125 plan" to cover more employees. A modification to the ACA allowing employees to receive subsidies for purchasing insurance through 125-type plans that would depend on the affordability of the premiums could potentially expand both employer and employee options for ensuring affordable employee health insurance coverage. More generally, these proposals could ultimately have the effect of eliminating or greatly mitigating incentives that the ACA mandate currently gives employers to alter the way they staff positions.

Our paper sheds light on the magnitude of the potential effects of the ACA's employer mandate on staffing arrangements in organizations, and also whether concerns about changes in staffing patterns are warranted. We find that the Massachusetts health reform modestly increased part-time employment among low-educated workers, and the structure of incentives under the ACA, along with the current economic and political environment, arguably could induce relatively greater shifting of workers into arrangements not covered by the mandate. Although subject to caveats discussed above, our estimates of the number of workers who should be covered by the employer mandate but who currently are not offered employer-sponsored health insurance provide evidence on the hours and industry distribution of workers most vulnerable to reduction in hours or other changes in their staffing arrangements. The number of such vulnerable workers—about 7 million, or 5 percent of the workforce—is modest but significant;

under the ACA, as was the case in the Massachusetts reform, the large majority of workers subject to the employer mandate already are offered employer-sponsored health insurance.

The number whose employment arrangements will ultimately be affected by the mandate may be considerably lower than the number of potentially vulnerable identified in our analysis and will depend, in part, on future macroeconomic conditions. Continued improvement in the economy and tightening of labor markets would make it harder for employers to hire workers in short hours part-time or less desirable employment arrangements. And an increase in the rate of inflation would make it easier for employers to pass along the costs of health insurance to workers through lower real wages, obviating the need from their perspective to sidestep the mandate. Furthermore, ongoing executive, legislative, and judicial interpretation of the ACA—via U.S. Department of Health and Human Services directives that define mandated benefits and other requirements, executive delays in the implementation of the law (including the employer mandate), and court decisions about legal obligations to comply with the law’s provisions—have made employer efforts to understand and comply with the law akin to shooting at a moving target.

At this time, we believe calls to eliminate or substantially weaken the employer mandate based on concern over its effects on staffing arrangements are premature, but developments in short-hours part-time and contract work should be carefully monitored over the next several years. Making the data necessary for the monitoring and analysis of these developments more readily accessible to researchers would be another important step toward more informed decision making about possible changes to the employer mandate or other aspects of the ACA. The impact of the employer mandate on staffing arrangements among certain groups—especially

low-educated, low-wage workers—and in certain industries—including retail, accommodations, and food services—could be sizable and may well warrant future modifications to the law.

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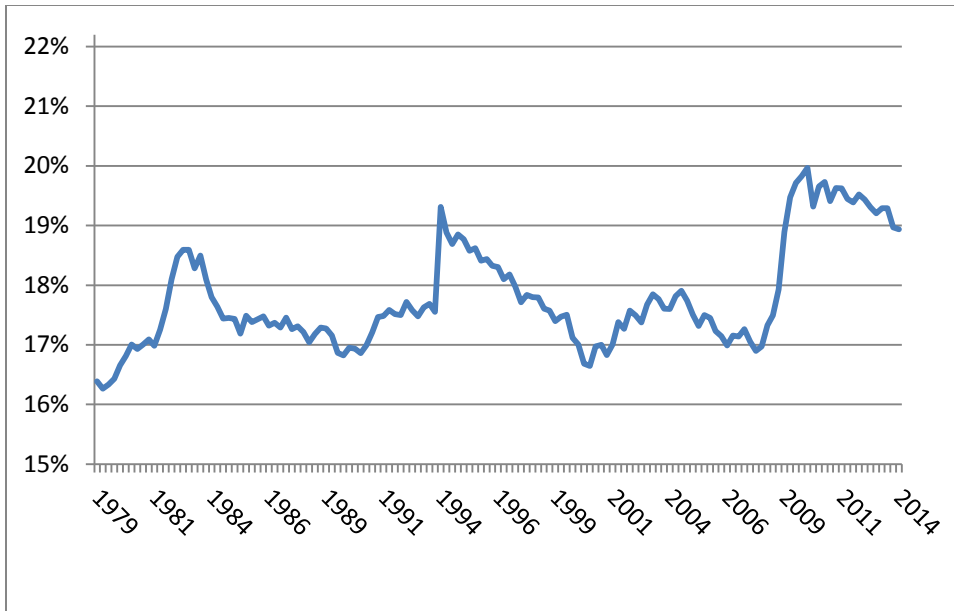
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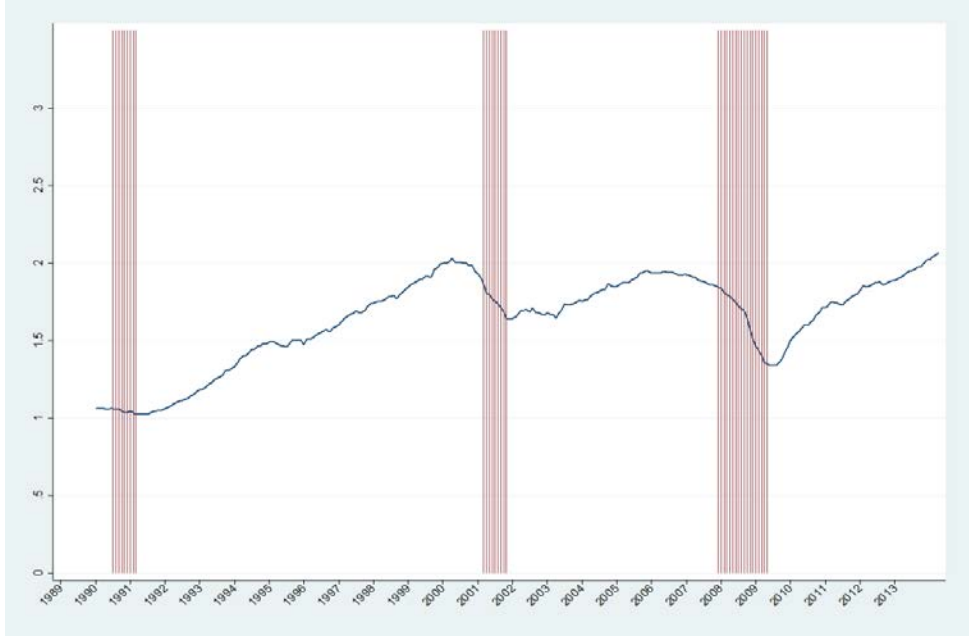


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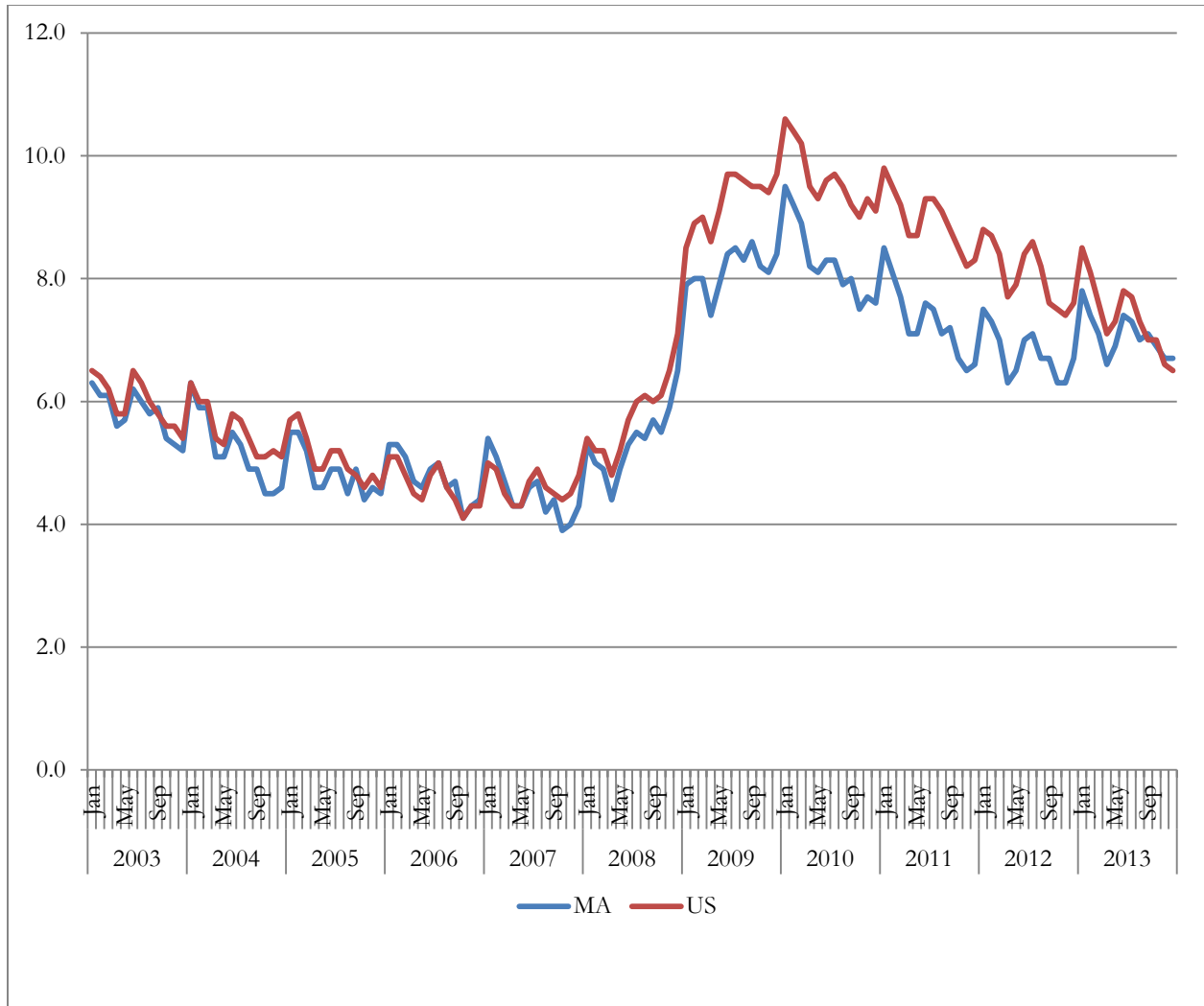
SOURCE: Bureau of Labor Statistics, Current Population Survey

**Figure 1 Share of Part-Time Employment in the United States**



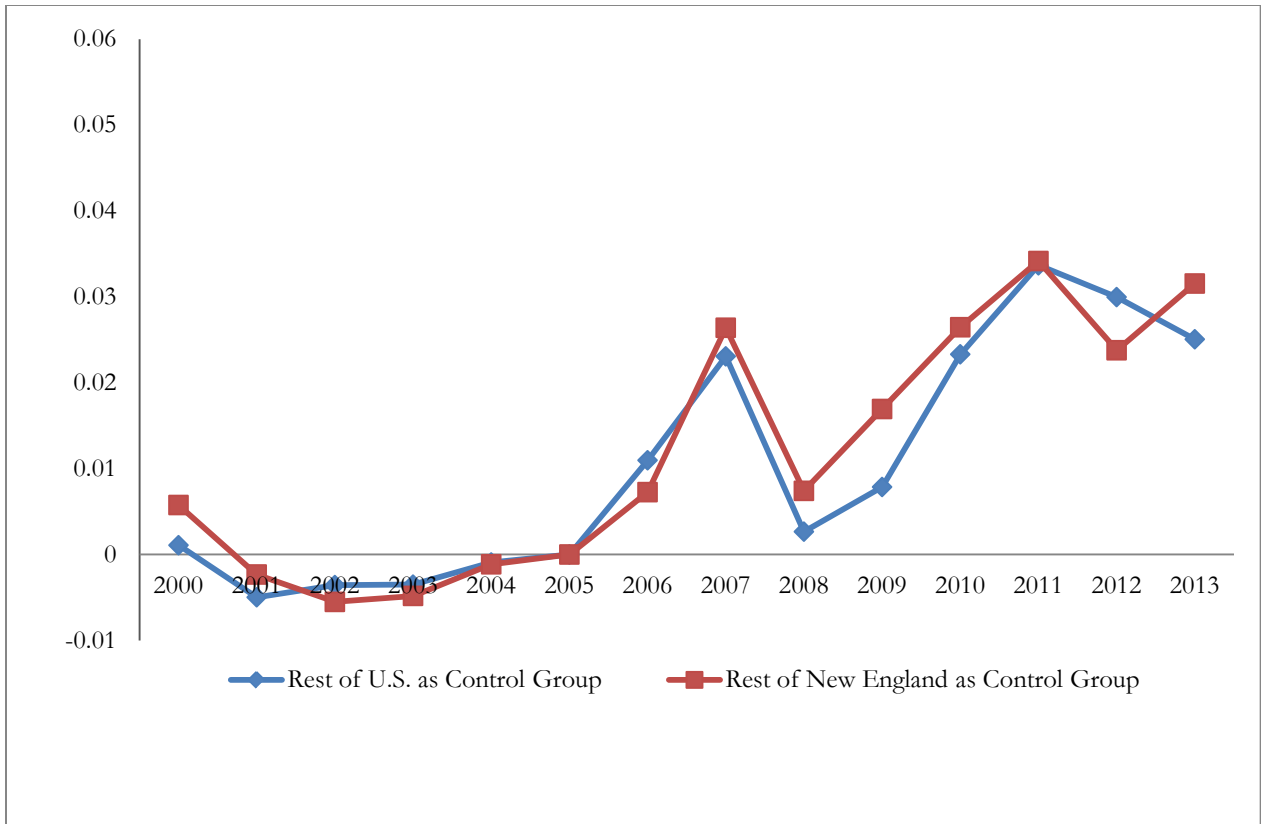
NOTE: Shaded areas mark recession years.  
 SOURCE: Bureau of Labor Statistics, Current Employment Statistics

**Figure 2 Temporary Help Employment as a Percent of Total Nonfarm Payroll Employment**



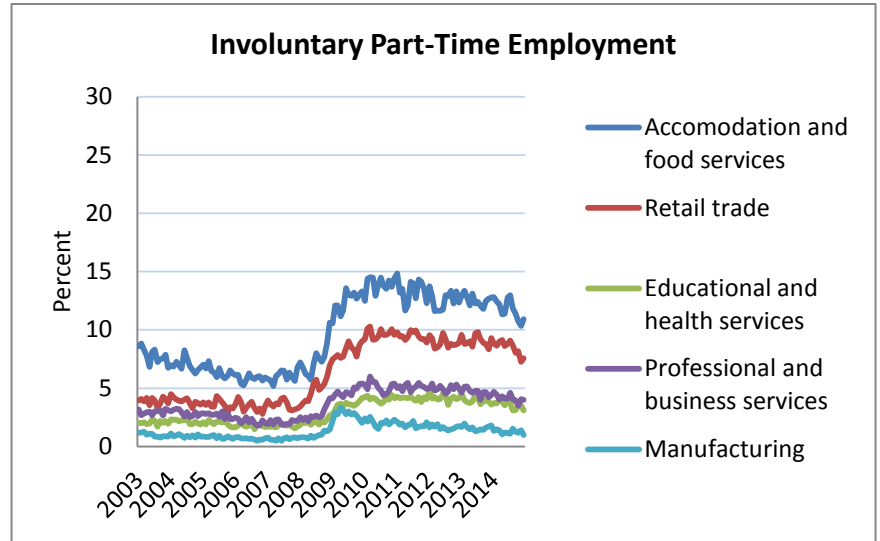
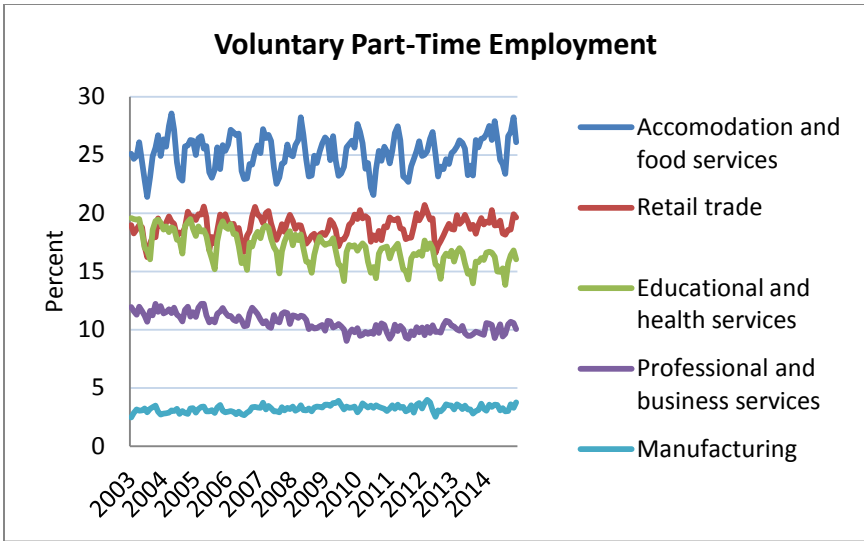
SOURCE: Current Population Survey and the Local Area Unemployment Statistics.

**Figure 3 Unemployment in Massachusetts Compared to the Rest of the Nation**



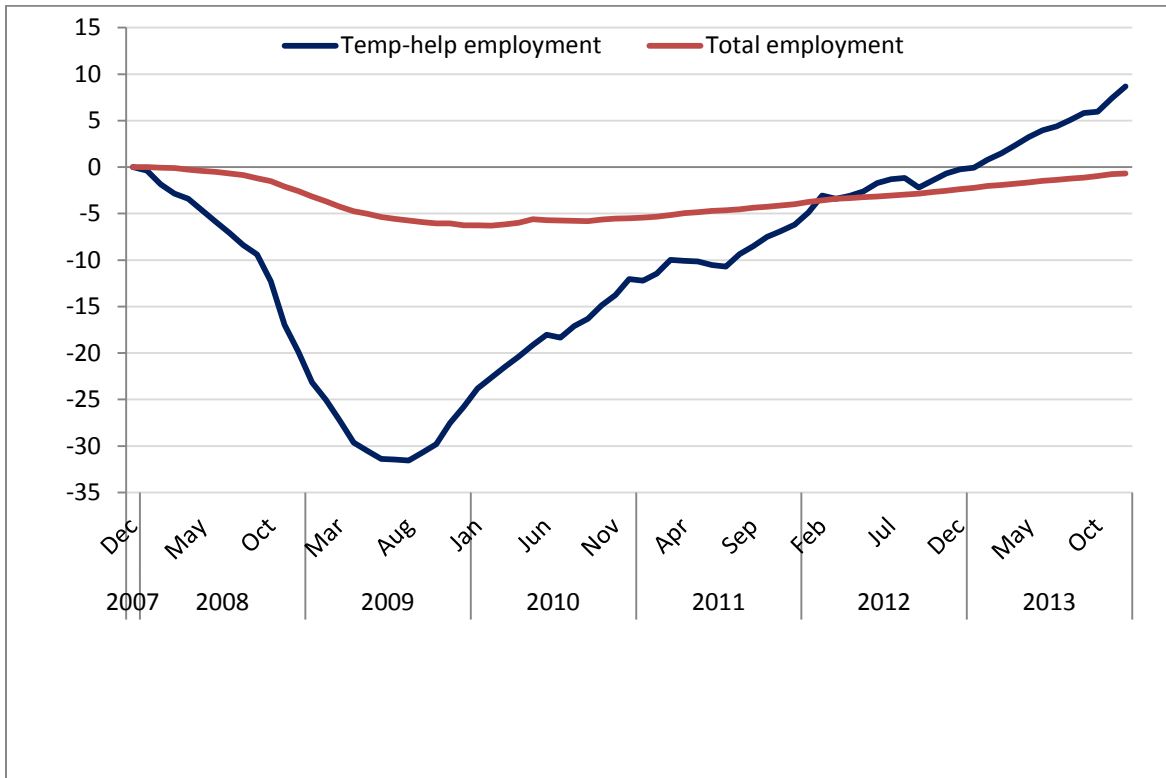
NOTE: The graph displays  $\beta$  estimates from two separate regressions of Equation (2) that control for state, sex, race, education, age, the unemployment rate, and the month of the observation. The data come from the monthly CPS. The sample includes wage and salaried employees ages 18–64, excluding those with imputed hours of work.

**Figure 4 Part-Time Work in Massachusetts Compared to the Rest of the Nation**



SOURCE: Bureau of Labor Statistics, Current Population Survey.

**Figure 5 Voluntary and Involuntary Rates of Part-Time Employment, Selected Sectors**



NOTE: Figure shows percent difference in employment relative to employment in December 2007 for employment in the temporary help industry and total nonfarm payroll employment.

SOURCE: Authors' calculations based on data from the BLS Current Employment Statistics.

**Figure 6 Employment Growth since Last Cyclical Peak, December 2007**

**Table 1 Comparison of Massachusetts Reform and the Affordable Care Act**

	<b>Massachusetts Health Care Reform</b>	<b>Patient Protection and Affordable Care Act</b>
<b>Dates</b>		
Date of passage	April 12, 2006 <sup>a</sup>	March 23, 2010 <sup>b</sup>
Effective date	July 1, 2007 <sup>a</sup>	March 23, 2010; Specific provisions phased in through 2020 <sup>b</sup>
<b>Minimum Care</b>		
Preventative care	Co-pay, but must be covered without a deductible <sup>c</sup>	Free <sup>d</sup>
Preexisting conditions	Insurers required to cover <sup>e</sup>	Insurers required to cover <sup>d</sup>
Maximum deductible	\$2,000 <sup>a</sup>	\$2,000 in small group market <sup>f</sup>
Out-of-pocket maximum	\$5,000 <sup>a</sup>	\$6,350 (as of 2014) <sup>a</sup>
Essential benefits	Ambulatory patient services; emergency services; hospitalization; mental health; prescription drug coverage; preventive and primary care <sup>c</sup>	Ambulatory patient services; emergency services; hospitalization; maternity and newborn care; mental health and substance use disorder services, including behavioral health treatment; prescription drugs; rehabilitative and habilitative services and devices; laboratory services; preventive and wellness services and chronic disease management; and pediatric services, including oral and vision care <sup>f</sup>
Annual limits	Insurers cannot set annual limits <sup>c</sup>	Insurers cannot set annual limits <sup>d</sup>
Lifetime limits	No lifetime limit ban	Insurers cannot set lifetime limits <sup>e</sup>
<b>Employers</b>		
Employer mandate	Yes <sup>a</sup>	Yes <sup>b</sup>
Provisions	Employers must offer a health insurance plan to full-time employees or pay an annual penalty per employee <sup>e,g</sup>	Employers must offer a health insurance plan or pay an annual penalty per employee <sup>b,g</sup>
Penalties	<ul style="list-style-type: none"> <li>• Employers must pay a penalty of \$295 per employee per year if the employer does not offer health insurance or meet the contribution requirement.</li> <li>• Must also pay a penalty if employees use the uncompensated care pool<sup>a</sup></li> </ul>	<ul style="list-style-type: none"> <li>• Must pay \$2,000 per full-time employee (after first 30 employees) for not offering any insurance options</li> <li>• Must pay \$3,000 for not offering affordable coverage, for each employee receiving a tax credit for insurance purchased on exchange<sup>b,g</sup></li> </ul>



Table 1 (Continued)

	Massachusetts Health Care Reform	Patient Protection and Affordable Care Act
Full-time definition	35 or more hours per week <sup>c</sup>	30 or more hours per week <sup>g</sup>
Contribution requirement	At least 25 percent of full-time employees must be enrolled in the employer's plan or the employer must offer to pay at least 33 percent of the premium cost <sup>c</sup>	Insurance plan must pay for at least 60 percent of covered health care expenses for a typical population and employees must pay no more than 9.5 percent of family income for employer coverage <sup>b</sup>
Exemptions	Companies with fewer than 11 full-time employees <sup>a</sup>	Companies with fewer than 50 full-time employees <sup>b</sup>
Provisions for exempt employers	Employers with 10 or fewer employees may purchase coverage for employees through the Commonwealth Health Insurance Connector <sup>a,g</sup>	Employers with fewer than 25 employees may be eligible for a tax credit for offering health insurance if average wages are under \$50,000 <sup>b,g</sup>
<b>Individuals</b>		
Individual mandate	Yes <sup>a</sup>	Yes <sup>b</sup>
Marketplaces created	The Connector, which allows individuals and small businesses to compare and purchase private insurance that meets coverage and cost standards <sup>a</sup>	State Exchanges, which allow individuals and small businesses to compare and purchase private insurance that meets coverage standards <sup>b</sup>
Penalty for not buying	Individuals who go three or more months without purchasing affordable coverage face penalties: <ul style="list-style-type: none"> <li>Initially, \$219 per individual</li> <li>Starting in 2008, up to 50 percent of the cost of the least expensive coverage<sup>g</sup></li> </ul>	The penalty is the greater of: <ul style="list-style-type: none"> <li>For 2014, \$95 per uninsured person or 1 percent of household income over the filing threshold</li> <li>For 2015, \$325 per uninsured person or 2 percent of household income over the filing threshold</li> <li>For 2016 and beyond, \$695 per uninsured person or 2.5 percent of household income over the filing threshold<sup>b,g</sup></li> </ul>
Subsidized insurance:	Yes; for anyone earning up to 300 percent of poverty level; Free for anyone earning up to 150 percent of poverty level <sup>a</sup>	Yes; for anyone earning up to 400 percent of poverty level whose employer does not offer health insurance, covers less than 60 percent of the actuarial value, or whose employee share exceeds 9.5 percent of income <sup>b</sup>
Exemptions	Income at or below 150 percent of the federal poverty level; cannot find an affordable plan based on income and family size; religious beliefs against health insurance; financial hardship during a year <sup>e</sup>	Income below 100 percent of the federal poverty level; not being required to file income taxes; having religious objections; having a coverage gap shorter than three months; or being an American Indian, undocumented immigrant, or incarcerated person <sup>b</sup>

Table 1 (Continued)

	Massachusetts Health Care Reform	Patient Protection and Affordable Care Act
<b>Medicaid</b>		
To qualify	Expanded to cover children with family incomes up to 300 percent of the federal poverty level. Eligibility levels for adults remains the same, though enrollment caps for certain Medicaid programs for adults were raised <sup>a</sup>	Expanded so that people with a household income below 133 percent of the poverty level will qualify <sup>b</sup>
<b>Individual Market</b>		
Factors insurers can price use in pricing	Family structure, geography, and age as of 1996 (before 2006 reform) <sup>h</sup>	Family structure, geography, age, and tobacco use <sup>b</sup>
Guaranteed issue	Yes, as of 1996 (before 2006 reform) <sup>h</sup>	Yes <sup>b</sup>
<b>Young Adults</b>		
Expanding dependent coverage	Children can stay on parents' plan until age 26 or until they have not been a dependent for two years, whichever is sooner <sup>c</sup>	Children stay on parents' plan until age 26 <sup>b</sup>

SOURCE:

<sup>a</sup> Kaiser Family Foundation (2007)

<sup>b</sup> Kaiser Family Foundation (2013b)

<sup>c</sup> Raymond (2007)

<sup>d</sup> U.S. Department of Health and Human Services (n.d.)

<sup>e</sup> MassResources.org (2014)

<sup>f</sup> Coventry Health Care (2012)

<sup>g</sup> Kolstad and Kowalski (2012b)

<sup>h</sup> Wachenheim and Leida (2012)

**Table 2 Descriptive Statistics**

	<u>Massachusetts</u>		<u>Rest of U.S.</u>	
	Mean	St. Dev	Mean	St. Dev
Male	0.46	0.50	0.47	0.50
Black	0.06	0.24	0.11	0.31
White	0.88	0.33	0.82	0.38
Hispanic	0.08	0.27	0.12	0.33
Age	40.66	12.89	40.45	13.09
College	0.38	0.29	0.27	0.33
High school	0.90	0.50	0.88	0.49
Working	0.73	0.44	0.71	0.45
Part-time	0.13	0.34	0.10	0.30
Full-time	0.60	0.49	0.60	0.49

NOTE: The sample includes all individuals ages 18–64 except individuals with imputed hours of work and the self-employed. All tabulations are weighted using CPS weights. The sample has 215,245 individuals from Massachusetts and 12,307,752 individuals from the rest of the United States.

SOURCE: Authors' tabulations using the 2000–2013 basic monthly CPS.

**Table 3 The Effect of the Massachusetts Reform on Employment Status**

	<u>Full sample</u>	<u>Bachelor's degree holders</u>	<u>No bachelor's degree holders</u>
	Full Sample		
Massachusetts insurance reform	0.006	0.000	0.019***
S. E.	(0.004)	(0.005)	(0.005)
Percent of Placebo Estimates Larger/Smaller than Massachusetts Estimate	0.18	0.40	0.00
n	8,872,040	2,799,222	6,072,818
	New England Only		
Massachusetts insurance reform	0.009**	0.000	0.022***
S. E.	(0.005)	(0.007)	(0.007)
n	964,311	352,999	611,312
	Synthetic Control		
Massachusetts insurance reform	0.006	0.011*	0.019***
S. E.	(0.006)	(0.006)	(0.006)
n	674,671	407,447	496,684

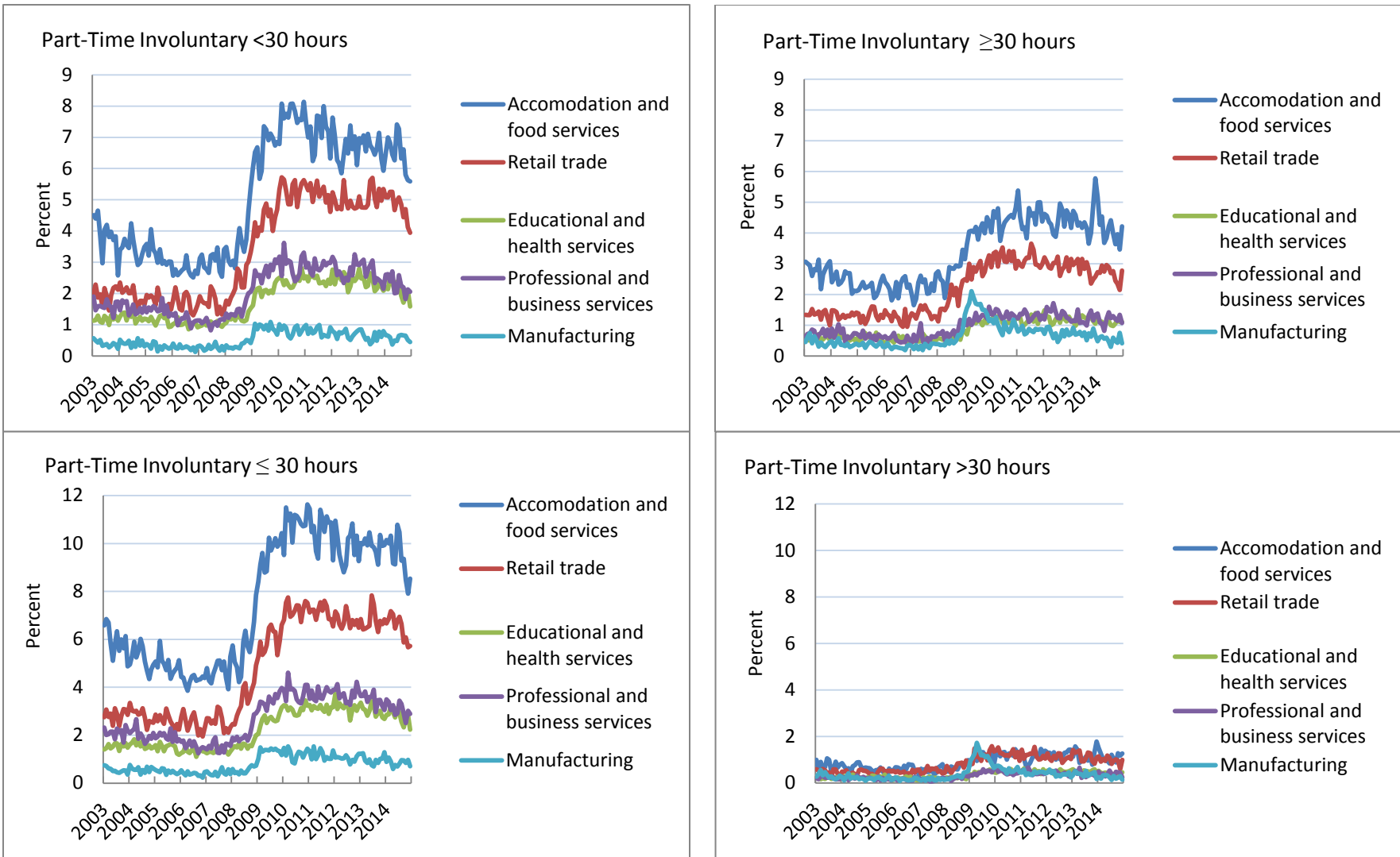
NOTE: \* significant at the 0.10 level; \*\* significant at the 0.05 level; \*\*\* significant at the 0.01 level. Each cell is the  $\beta$  coefficient from a separate regression of Equation (1) that controls for state, sex, race, education, age, the unemployment rate, and the month of the observation. The data come from the monthly CPS. The sample includes wage and salaried employees ages 18-64, excluding those with imputed hours of work.

**Table 4 Distribution of Workers Who Are Not Offered Employment-based Health Insurance, Working 30+ Hours Per Week in Firms With 50+ Employees (percent)**

	50–99 employees			100+ employees			Total by industry
	30–35	35–40	40+	30–35	35–40	40+	
Agriculture	0.1	0.1	1.4	0.1	0.2	2.0	3.9
Mining	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Construction	0.2	0.3	2.4	0.3	0.3	1.6	5.1
Manufacturing	0.4	0.3	3.4	0.9	1.0	1.0	7.0
Wholesale trade	0.1	0.1	1.0	0.4	0.2	1.7	3.6
Retail trade	0.7	0.3	1.4	9.2	5.7	6.3	23.5
Transportation and utilities	0.2	0.1	1.4	1.0	1.0	0.5	4.3
Information	0.0	0.1	0.0	0.3	0.3	0.0	0.7
Financial activities	0.1	0.2	0.7	0.9	0.5	0.0	2.4
Employment services	0.1	0.1	0.8	0.8	0.8	4.2	6.6
Professional and business services <sup>a</sup>	0.5	0.3	1.9	1.3	1.0	1.7	6.6
Education services	0.3	0.3	0.0	3.1	1.5	0.0	5.2
Health care and social assistance	0.9	0.9	3.0	3.7	1.1	0.0	9.6
Accommodation and food services	0.7	0.6	1.6	6.6	4.8	4.0	18.3
Other services	0.3	0.2	0.0	1.4	0.8	0.0	2.7
Public administration	0.0	0.0	0.0	0.5	0.0	0.0	0.5
<b>Total by firm size and weekly hours</b>	<b>4.8</b>	<b>3.7</b>	<b>19.0</b>	<b>30.5</b>	<b>19.1</b>	<b>22.9</b>	<b>100.0</b>

NOTE: <sup>a</sup>Figures for professional and business services exclude employment services, which is primarily made up of the temporary help services industry.

SOURCE: Authors' estimates using data from the March Current Population Survey and National Compensation Survey.



SOURCE: Bureau of Labor Statistics, Current Population Survey.

**Figure A.1 Involuntary Part-Time Employment by Hours Worked, Selected Sectors**