

ACA Implementation—Monitoring and Tracking

Recent Evidence on the ACA and Employment: Has the ACA Been a Job Killer? 2016 Update

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With support from the Robert Wood Johnson Foundation (RWJF), the Urban Institute is undertaking a comprehensive monitoring and tracking project to examine the implementation and effects of the Patient Protection and Affordable Care Act of 2010 (ACA). The project began in May 2011 and will take place over several years. The Urban Institute will document changes to the implementation of national health reform to help states, researchers and policymakers learn from the process as it unfolds. Reports that have been prepared as part of this ongoing project can be found at www.rwjf.org and www.healthpolicycenter.org.

IN BRIEF

The potential effect of the Affordable Care Act (ACA) on the labor market has been controversial since the law was enacted, and remains so today, in the light of current proposals for ACA repeal. Because the ACA defines a full-time worker as one working 30 hours or more per week, employers subject to the employer mandate may reduce or avoid penalties by keeping workers' hours below the 30-hour threshold, thereby increasing the amount of involuntary part-time employment. The ACA's Medicaid expansions and income-based marketplace subsidies may provide incentives for some workers to voluntarily reduce their work hours or drop out of the labor market altogether. In this brief, we provide updated estimates through 2016 of the ACA's effects on employment, the usual number of hours worked per week among workers, and part-time employment. Our main findings are as follows:

- We find no evidence to support claims that the ACA has been a job killer. Through 2016, the ACA had little to no adverse effect on employment and usual hours worked per week. For both measures, levels in 2014, 2015, and 2016 are statistically identical to our projections based on patterns existing before 2014, the year the major provisions of the ACA went into effect. Our conclusion applies to the full sample of nonelderly persons and to subgroups of nonelderly persons based on gender and educational attainment.
- Levels of part-time work (29 or fewer hours per week) have fallen since 2014, but remain at somewhat higher levels than would be expected given recent declines in the unemployment rate and overall economic improvement. In 2016, the ratio of part-time employment to population was 9.2 percent, 0.56 percentage points (6 percent) higher than our prediction based on pre-2014 patterns. The higher-than-expected rate of part-time work is driven by increases in voluntary part-time work. In 2016, voluntary part-time work was 0.80 percentage points (10 percent) higher than predicted. Involuntary part-time work was 0.33 percentage points (17 percent) lower than predicted.
- The findings for voluntary and involuntary part-time work suggest that the ACA did not lead to widespread cutbacks in workers' hours by employers attempting to avoid employer mandate penalties (i.e., a reduction in labor demand). Instead, the evidence suggests that the ACA is associated with a reduction in the number of hours workers chose to work. Most would view an ACA-induced decrease in labor demand as a negative unintended consequence of the ACA. On the other hand, a voluntary decrease in labor supply in response to the ACA is consistent with an improvement in a person's welfare, although it may cause a decrease in *measured* economic activity.
- Three years after implementation of the ACA's major provisions, the policy seems to have increased health insurance coverage for 20 million Americans with little or no adverse effects on employment.

INTRODUCTION

The potential effect of the Affordable Care Act (ACA) on the labor market has been controversial since the law was enacted, and remains so today, in the light of current proposals for ACA repeal.^{1,2} In this brief, we provide updated estimates of the ACA's effects on employment, the usual number of hours worked per week among workers, and part-time employment.

As we have noted in previous briefs, the ACA contains several provisions that could affect labor market outcomes: the mandate requiring large employers to offer health insurance coverage to their full-time workers or face a penalty, the expansion of Medicaid benefits to low-income adults, and the provision of subsidies (in the form of tax credits) in the health insurance marketplaces.³ Because the ACA defines a full-time worker as one working 30 hours or more per week, employers subject to the employer mandate may reduce or avoid penalties by keeping workers' hours below the 30-hour threshold, thereby increasing the amount of part-time employment. Similarly, the Medicaid expansions and income-based marketplace subsidies provide incentives for some workers, particularly low-wage workers, to reduce labor effort by reducing the number of hours worked or dropping out of the labor market altogether. Like other public programs that tie benefits to income, the ACA may have unintended consequences on employment.⁴

The Congressional Budget Office predicted that the ACA would reduce the total number of hours worked in the economy by 1.5 to 2.0 percent from 2017 to 2024, and it attributed most of this effect to a decline in labor supply rather than labor demand.⁵ The CBO's predictions about labor market effects are an important part of its dynamic scoring of the ACA's budgetary cost, though it acknowledged substantial uncertainty about its estimates. In its 2015 analysis of the budgetary effects of repealing the ACA, the CBO estimated that repeal would *increase* the federal budget deficit by \$353 billion over the next 10 years, but this estimate did not account for the macroeconomic effects of the ACA that are largely driven by a labor supply response. When the CBO included potential labor market responses as well as other macroeconomic effects, they estimated that repeal would increase the deficit by only \$137 billion.⁶ Thus, while much of the focus on the ACA has been on health insurance coverage, the labor market consequences of

the ACA are also important. This brief continues our monitoring of those consequences.

When we examined the evidence available as of early last year, we concluded that the ACA had little, if any, adverse effect on employment.⁷ In this brief, we update these estimates using data through 2016. We provide estimates of the ACA's effects on employment, the usual number of hours worked per week among workers, and part-time employment. First, we examine the ACA's overall effects by assessing whether labor market outcomes in 2014, 2015, and 2016 differ from what we would predict based on pre-2014 trends. We do this for all nonelderly adults, and separately for men and women by educational attainment. We then provide additional analysis on whether the ACA has affected part-time work, one area for which prior evidence has not been uniform. Finally, we discuss our findings within the broader context of ACA employment effects.

We use data from the monthly files of the Current Population Survey (CPS) from January 2000 through December 2016. We limit our analysis to nonelderly adults (ages 18 to 64). We examine three labor market outcomes: employment at the time of the survey, usual number of hours worked per week among those who are employed, and part-time employment (measured as those who report working fewer than 30 hours per week). We further investigate the type of part-time work by dividing part-time status into voluntary part-time work—those who worked 0 to 29 hours in the previous week and who report working part-time for “noneconomic reasons”—and involuntary part-time work—those who worked 0 to 29 hours in the previous week for “economic reasons” including slack work or inability to find full-time work.⁸ Our analysis focuses on changes in the time trend of each outcome and, specifically, changes since the ACA was implemented in 2014. To isolate the effect of the ACA from other factors affecting labor market outcomes, we use regression methods to generate a counterfactual (predicted) outcome in the years after 2013. Deviations of actual labor market outcomes from their predicted values in 2014 may indicate effects of the ACA, but such deviations may also result from “unexpected” changes in the labor market independent of the ACA (i.e., economic changes that are not predicted by our regression model). See the appendix for additional information on our methodological approach.

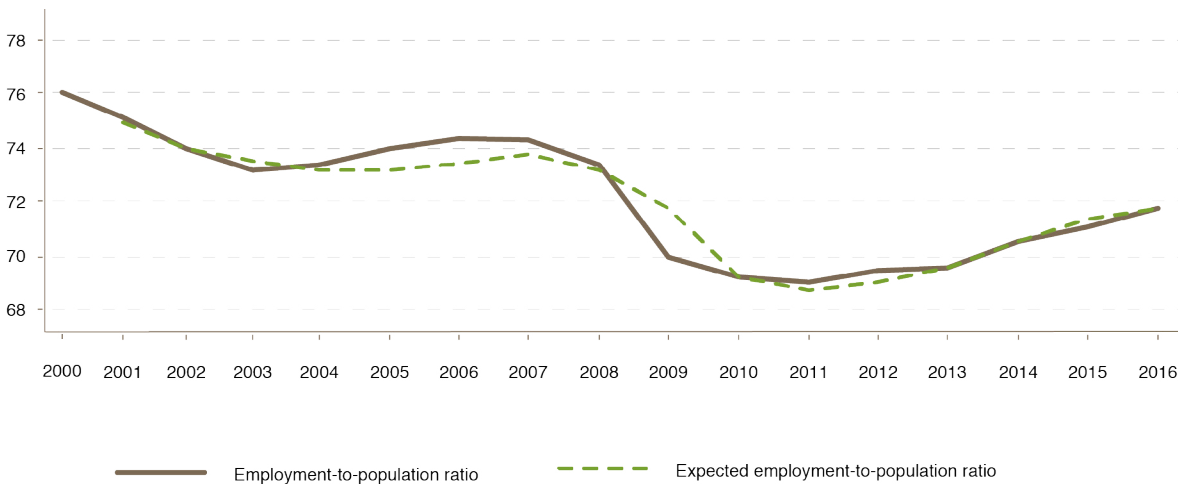
MAIN FINDINGS

In Figures 1 through 3, we show the trend in each employment measure and its predicted value from 2000 to 2016. Table 1 (left panel) reports the difference between actual and predicted levels for each labor market outcome measure for 2014 to 2016 among nonelderly adults.

Figure 1 shows the trend in the employment-to-population ratio among nonelderly adults by year. This ratio declined from 76 percent to 70 percent between 2000 and 2013, although the decline was not continuous. Notably, between 2004 and 2008, the employment-to-population ratio was relatively constant at 74 percent and was preceded by a modest decline. A relatively sharp decline between 2008 and 2011 corresponds roughly with the Great Recession and its aftermath. Since 2011, the employment-to-population ratio has increased steadily, although it has not returned to its pre-recession level.

Also shown in Figure 1 is the expected employment-to-population ratio by year, which is derived from a regression model (see equation 1 in Appendix). The expected employment-to-population ratio tracks the actual ratio very well in every year except 2009, when the actual employment rate fell precipitously because of the Great Recession. The 2014 to 2016 values of the expected employment-to-population ratio are forecasts—they are predicted by the regression model. A comparison of the actual and predicted employment-to-population ratios in 2014, 2015, and 2016 reveals virtually no statistically or economically meaningful difference. In 2016, the actual and expected employment-to-population ratios were both 71.8 percent, indicating no overall effect on employment associated with the ACA.

Figure 1. Employment-to-Population Ratio



Source: Authors' analysis of Current Population Survey data from 2000 to 2016.

Notes: Employment-to-population ratio is computed for the nonelderly adult population. Expected rates are from a regression using the previous year's employment-to-population ratio, current opposite age and opposite gender unemployment rate, previous year's unemployment rates, state, year, age, sex, race and ethnicity, education, marital status, and number of children as predictors. See appendix for details of the regression specification.

We also estimated the ACA's impact on employment by gender and education status. Earlier research has shown the labor supply of women to be more responsive to changes in work incentives than that of men, so we expect women and men to respond differently to the ACA.⁹ Though the ACA's provisions apply to large parts of the economy and a large share of the U.S. population, low-income workers may be particularly affected because they are more likely to be eligible for subsidies in the health insurance marketplaces or Medicaid and are more likely

to lack health insurance. Therefore, overall findings for the entire U.S. population of nonelderly adults may obscure effects of the ACA on this arguably more affected group. To assess this possibility, we further stratify our analysis by education status. Education status is strongly related to income but not directly affected by the ACA. If the ACA affected employment, it would also have a direct effect on income, and stratifying the sample on the basis of income would lead to biased estimates.

Table 1 indicates that the differences in actual and predicted employment-to-population ratios differ by gender and education status. For men with a high school education or less, the actual employment-to-population ratio, around 70 to 71 percent, exceeds its expected level by 0.4 to 0.9 percentage points depending on the year, but none of the differences between actual and expected values are statistically significant. For men with more than a high school education, the actual employment-to-population ratio after 2013 is slightly lower than expected (0.2 to 0.4 percentage points lower, depending on the year), but again, these differences are not statistically significant. For women, the results are similar. Among women

with a high school education or less, actual employment is higher than predicted, but not by a statistically significant amount. For women with more than a high school education, no economically meaningful differences exist between actual and predicted employment. In sum, we see no evidence of an ACA effect on employment overall, and the small differences we see by gender and education status are not statistically significant. In fact, we observe some *higher*-than-expected rates of employment among men and women with a high school education or less, though these are small (less than 1 percentage point higher).

Table 1. Estimates of Actual and Expected Labor Market Outcomes, by Gender and Education Level

| | Year | All | | | Men | | | | | |
|---|------|--------|----------|------------|-------------------------------|----------|------------|---------------------------------|----------|------------|
| | | Actual | Expected | Difference | High School Education or Less | | | More than High School Education | | |
| | | | | | Actual | Expected | Difference | Actual | Expected | Difference |
| Employment-to-Population Ratio (%) | 2014 | 70.53 | 70.45 | 0.07 | 69.57 | 68.67 | 0.91 | 81.08 | 81.25 | -0.18 |
| | 2015 | 71.06 | 71.35 | -0.29 | 70.04 | 69.67 | 0.37 | 81.83 | 82.24 | -0.41 |
| | 2016 | 71.80 | 71.82 | -0.02 | 70.76 | 70.05 | 0.71 | 82.48 | 82.86 | -0.37 |
| Hours worked per week if employed | 2014 | 38.79 | 38.82 | -0.03 | 40.52 | 40.24 | 0.28 | 41.79 | 41.65 | 0.14 |
| | 2015 | 38.88 | 38.92 | -0.04 | 40.49 | 40.33 | 0.17 | 41.87 | 41.76 | 0.11 |
| | 2016 | 38.89 | 39.03 | -0.14 | 40.40 | 40.38 | 0.02 | 41.77 | 41.83 | -0.05 |
| Part-Time Employment-to-Population Ratio (%) (based on usual hours worked per week) | 2014 | 9.45 | 9.14 | 0.31 | 6.29 | 6.32 | -0.03 | 6.78 | 6.89 | -0.11 |
| | 2015 | 9.22 | 8.86 | 0.37 | 6.22 | 6.12 | 0.09 | 6.44 | 6.62 | -0.17 |
| | 2016 | 9.19 | 8.63 | 0.56** | 6.22 | 6.03 | 0.19 | 6.50 | 6.39 | 0.11 |
| Part Time Employment-to-Population Ratio (%) (based on hours worked in prior week) | 2014 | 10.50 | 10.04 | 0.46** | 7.79 | 7.71 | 0.08 | 8.06 | 8.05 | 0.01 |
| | 2015 | 10.23 | 9.79 | 0.44** | 7.63 | 7.60 | 0.03 | 7.61 | 7.79 | -0.18 |
| | 2016 | 10.08 | 9.59 | 0.49** | 7.53 | 7.53 | 0.00 | 7.64 | 7.60 | 0.04 |

| | Year | All | | | Women | | | | | |
|---|------|--------|----------|------------|-------------------------------|----------|------------|---------------------------------|----------|------------|
| | | Actual | Expected | Difference | High School Education or Less | | | More than High School Education | | |
| | | | | | Actual | Expected | Difference | Actual | Expected | Difference |
| Employment-to-Population Ratio (%) | 2014 | 70.53 | 70.45 | 0.07 | 53.78 | 53.20 | 0.58 | 71.68 | 71.72 | -0.04 |
| | 2015 | 71.06 | 71.35 | -0.29 | 53.68 | 53.24 | 0.44 | 72.26 | 72.25 | 0.01 |
| | 2016 | 71.80 | 71.82 | -0.02 | 54.45 | 53.45 | 1.01 | 72.78 | 72.57 | 0.21 |
| Hours worked per week if employed | 2014 | 38.79 | 38.82 | -0.03 | 35.23 | 35.42 | -0.19 | 36.86 | 36.93 | -0.07 |
| | 2015 | 38.88 | 38.92 | -0.04 | 35.37 | 35.54 | -0.17 | 36.99 | 37.09 | -0.10 |
| | 2016 | 38.89 | 39.03 | -0.14 | 35.50 | 35.67 | -0.16 | 37.07 | 37.22 | -0.16 |
| Part-Time Employment-to-Population Ratio (%) (based on usual hours worked per week) | 2014 | 9.45 | 9.14 | 0.31 | 11.24 | 10.63 | 0.61 | 12.80 | 12.43 | 0.37 |
| | 2015 | 9.22 | 8.86 | 0.37 | 10.98 | 10.43 | 0.56 | 12.57 | 12.05 | 0.52 |
| | 2016 | 9.19 | 8.63 | 0.56** | 11.05 | 10.25 | 0.80** | 12.37 | 11.66 | 0.71** |
| Part Time Employment-to-Population Ratio (%) (based on hours worked in prior week) | 2014 | 10.50 | 10.04 | 0.46** | 11.94 | 11.13 | 0.82** | 13.55 | 13.09 | 0.47 |
| | 2015 | 10.23 | 9.79 | 0.44** | 11.64 | 10.89 | 0.76** | 13.38 | 12.72 | 0.66** |
| | 2016 | 10.08 | 9.59 | 0.49** | 11.47 | 10.68 | 0.79** | 13.05 | 12.36 | 0.69** |

Source: Authors' analysis of Current Population Survey data from 2000 to 2016

Notes: Part-time employment is defined as working fewer than 30 hours per week. Expected labor market outcomes are based on regression models using data through 2013. See text for specification of regression models. ** p-value < .05

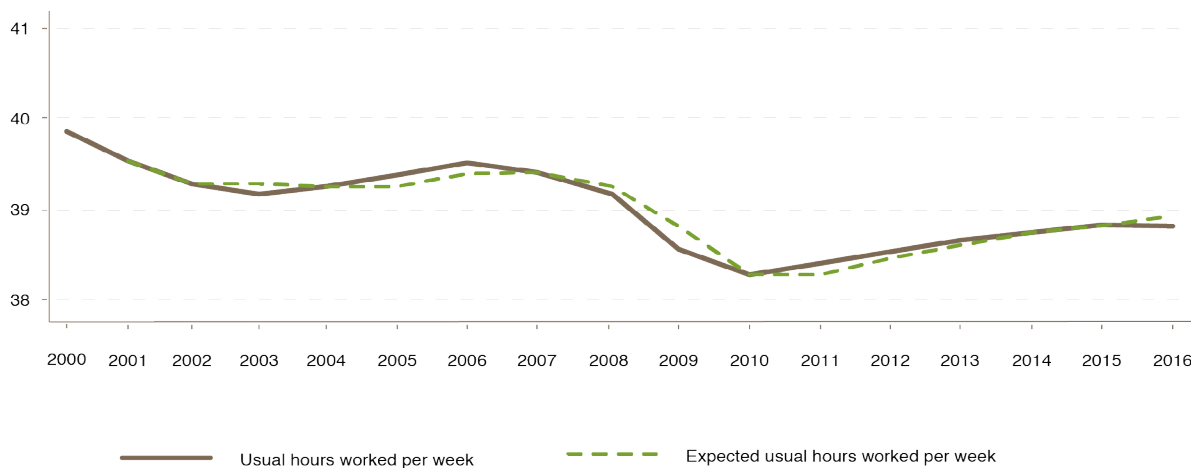
In Figure 2, we present trends in workers' actual and expected number of usual hours worked per week. The time series pattern for this outcome mirrors the employment-to-population ratio, showing an overall decline from 2000 to 2016 with a period of relative stability during the mid-2000s, although in this case the decline in average hours occurs somewhat earlier in 2007. As with other outcomes, the expected trend is a very good fit for the actual trend: the two lines are virtually identical. After 2014, the actual number of usual hours worked per week is virtually the same as the predicted number of usual hours worked per week. In Table 1, the difference of -0.14 hours for 2016 is not statistically significant and translates to a 0.36 percent reduction in hours worked. Table 1 further indicates that the estimates are virtually identical when stratifying the main analysis by gender and education status.

Because of the employer mandate and the 30-hour threshold used to define full-time employees, one major concern about the ACA was its potential effect on part-time work. The ACA required employers with 50 or more full-time equivalent employees to offer qualifying health benefits or face a penalty.

This penalty went into effect at the start of 2015 for employers with 100 or more full-time equivalent employees (after being delayed one year). The penalty was further delayed until 2016 for employers with 50 to 99 full-time employees. Workers were designated full-time employees by averaging their past hours over a "look-back" period of 3 to 12 months; as a result, the employer mandate provision may have affected employer behavior in 2014 or even earlier, and many observers have suggested as much.¹⁰

Figure 3 provides some evidence on this issue, showing the trend in actual and predicted part-time (less than 30 hours per week) employment by year. Since reaching a peak in 2010 in the wake of the Great Recession, the actual ratio of part-time employment to population has trended downward, falling from 9.8 percent in 2010 to 9.18 percent in 2016. The predicted trend tracks the actual trend very well in the years before 2014. In 2014, the actual amount of part-time work was 9.5 percent, exceeding the predicted amount by 0.31 percentage points. In 2016, the difference was 0.56 percentage points and was statistically significant (leftmost panel of Table 1).

Figure 2. Usual Hours Worked per Week



Source: Authors' analysis of Current Population Survey data from 2000 to 2016.

Notes: Usual hours worked per week is computed for employed nonelderly adults. Expected hours are from a regression using the previous year's usual hours worked per week, current opposite age and opposite gender unemployment rate, previous year's unemployment rates, state, year, age, sex, race and ethnicity, education, marital status, and number of children as predictors. See appendix for details of the regression specification.

The higher-than-expected part-time employment observed in the full sample masks differences by gender; specifically it was concentrated among women, as there was no significant difference between the actual and expected rate of part-time employment for men in either education group. Among women, the actual rate of part-time employment was higher than predicted and the 2016 differences were statistically significant. Specifically, the actual rate of part-time employment

was 0.80 and 0.71 percentage points (7 percent and 6 percent) higher for women with lower and higher levels of education, respectively. We also examined an alternative measure of part-time work based on hours worked in the last week. As can be observed in Table 1, the results with respect to part-time employment are very similar whether we define part-time status using usual hours worked per week or the hours worked in the last week.

Figure 3. Part-Time Employment-to-Population Ratio



Source: Authors' analysis of Current Population Survey data from 2000 to 2016.

Notes: Part-time employment-to-population ratio is computed for nonelderly adults. Part-time employment is defined as usually working fewer than 30 hours per week. Expected rates are from a regression using the previous year's part-time employment-to-population ratio, current opposite age and opposite gender unemployment rate, previous year's unemployment rates, state, year, age, sex, race and ethnicity, education, marital status, and number of children as predictors. See appendix for details of the regression specification.

Overall, the evidence presented in Figures 1 through 3 and in Table 1 indicates that, even up to three years following the implementation of the ACA's main provisions, employment measures were more or less as expected at this point in the business cycle. For two of the three outcomes—employment-to-population ratio and usual hours worked per week—the actual value was not statistically different from the expected value, and observed differences were small and not economically meaningful. However, part-time work has not fallen by as much as expected since 2013 despite an overall downtrend, suggesting a potential link between the ACA provisions and part-time work. Part-time employment was higher than expected in 2014 and 2015; the gap was more pronounced in 2016, but not by enough to significantly affect employees' average hours worked per week. The gap in part-time work is more pronounced in 2015 and 2016. This finding was due to the experiences of women who have higher rates of part-time work and traditionally have less consistent attachment to the labor force than men. In short, though we find no evidence that the ACA had a significant impact on overall employment and hours worked per week, we do find some evidence that the ACA increased part-time work among women in the first years of its implementation.

What explains higher-than-expected part-time work since 2013?

The emergence of a gap between actual and expected levels of part-time work in 2014, continuing into 2015 and 2016, coincides with the implementation of the ACA's major coverage provisions. In this section, we examine whether higher-than-

expected part-time work among women represents a shift in labor supply or labor demand. If the employer mandate reduced labor demand by causing employers to reduce worker hours to avoid a penalty, we would expect to see an increase in involuntary part-time work. If, on the other hand, the availability of subsidized health insurance coverage outside of full-time employment provided an opportunity for some workers to cut back their hours, then we would expect to see an increase in voluntary part-time work.

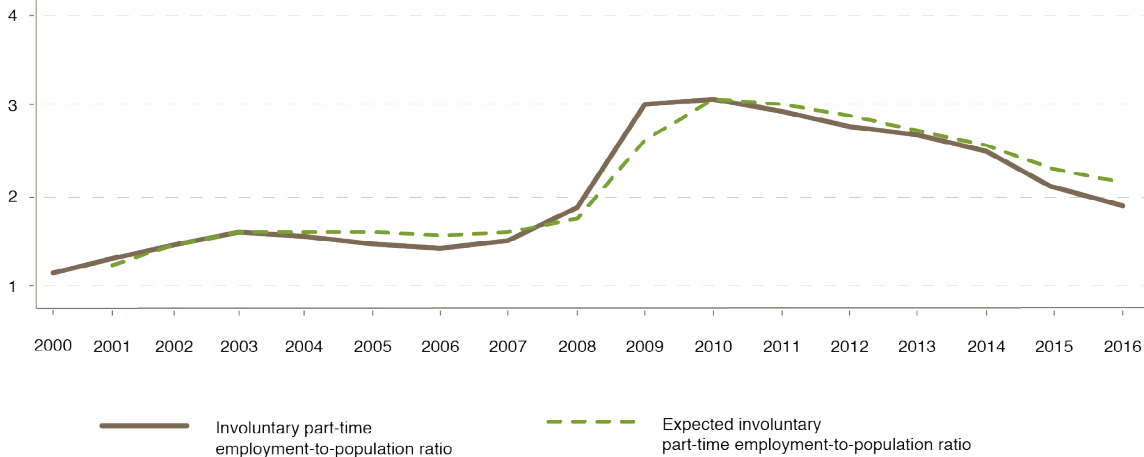
In Figures 4 and 5 and in Table 2, we examine trends in involuntary and voluntary part-time work (defined as working 0 to 29 hours in the previous week). Again, we estimate regression models to generate expected values (as shown in equation 1 in Appendix). Reasons for voluntary or involuntary part-time status in the CPS are classified with respect to reported hours worked in the previous week, not usual hours per week. For this analysis, we measure part-time status on the basis of hours worked last week and separate those working part-time by this measure based on whether they worked part-time voluntarily or involuntarily.

Figure 4 shows the trend in involuntary part-time work. Among nonelderly adults, the rate of involuntary part-time work was 1.1 percent in 2000 and varied within a narrow band until 2007. Involuntary part-time work then increased from 1.4 percent in 2007 to a peak of 3.0 percent in 2010 following the Great Recession. Since 2010, the rate of involuntary part-time work has fallen steadily. Expected involuntary part-time work tracks with actual part-time work very well in the pre-2014 period. Post-2014, the actual values of involuntary part-time

employment are somewhat below their expected values. In 2016, the actual rate of part-time work was 1.89 percent, compared with an expected rate of 2.22 percent. The small differences between actual and expected involuntary part-time work in the left panel of Table 2 are statistically significant in

2015 and 2016 (-0.25 and -0.33 percentage points, respectively). Accordingly, the higher-than-expected level of part-time work overall does not appear to be driven by employer demand for labor (i.e., because of the ACA's employer mandate).

Figure 4. Involuntary Part-Time Employment-to-Population Ratio



Source: Authors' analysis of Current Population Survey data from 2000 to 2016.

Notes: Involuntary part-time employment-to-population ratio is computed for nonelderly adults. Involuntary part-time employment is defined as working fewer than 30 hours in the last week and working part-time for economic reasons. Expected rates are from a regression using the previous year's involuntary part-time employment-to-population ratio, current opposite age and opposite gender unemployment rate, previous year's unemployment rates, state, year, age, sex, race and ethnicity, education, marital status, and number of children as predictors. See appendix for details of the regression specification.

Figure 5 shows the trend in voluntary part-time work. The ratio of voluntary part-time work to population declined from 8.8 percent in 2000 to 7.7 percent in 2013. Over that period, the decline was fairly steady and showed little cyclical movement with steeply increasing unemployment rates from 2007 to 2010. From 2000 to 2013, expected voluntary part-time work tracks the actual value very well. From 2013 to 2014, the actual rate of voluntary part-time work increased markedly to 8.1 percent, while the expected value continued to decline with the earlier trend, creating a gap of 0.53 percentage points (Table 2, left panel). The gap between actual and expected voluntary part-time work expanded through 2015 (0.67 percentage points) and 2016 (0.80 percentage points). The gap was statistically significant in each of the three years. Thus, the higher-than-expected level of part-time work seen in Figure 2 is almost entirely explained by an increase in voluntary part-time work relative to what would be expected based on past trends. This suggests that if the ACA led to an increase in part-time work, it did so by reducing labor supply. That is, the availability of subsidized coverage through health insurance marketplaces or Medicaid may have led to voluntary decisions by employees to work fewer hours.

The results for the combined sample of both genders and both education groups obscure some important heterogeneity. When the sample is stratified by gender and education, the increase in voluntary part-time employment associated with

the ACA is particularly large for women, although the increase in voluntary part-time employment for men with a high school education or less was also significant (Table 2). In 2016, the actual rate of voluntary part-time employment for women is approximately 1 percentage point (10 percent) higher than expected for both education groups. Analogous results for men are approximately half the size. Figures in Table 2 also indicate that men's rate of involuntary part-time employment for 2014 through 2016 was lower than expected. In 2016, actual rate of involuntary part-time work for men with a high school education was 0.72 percentage points less than the expected rate of 3.2 percent (23 percent less). Rates of involuntary part-time work were also lower than expected for men with more than a high school education. For women with more than a high school education, actual involuntary part-time work was significantly lower than expected levels only in 2015 and 2016. In absolute terms, the lower-than-expected rate of involuntary employment is smaller than the higher-than-expected rate of voluntary part-time work. In sum, the increase in part-time employment associated with the ACA has been driven largely by an increase in voluntary unemployment, particularly for women. The increase in voluntary part-time employment for men was smaller than that for women and was offset by a decrease in involuntary part-time employment, making the total change in part-time employment associated with the ACA small and statistically insignificant.

Table 2. Estimates of Actual and Expected Part-time Work, Involuntary Part-time Work, and Voluntary Part-time Work, by Gender and Education Level

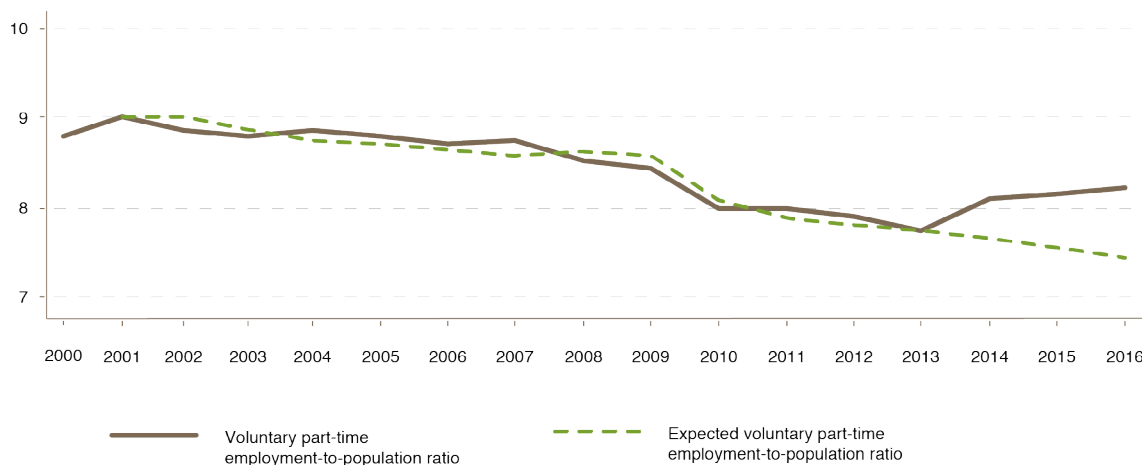
| | Year | All | | | Men | | | | | |
|--|------|--------|----------|------------|-------------------------------|----------|------------|---------------------------------|----------|------------|
| | | Actual | Expected | Difference | High School Education or Less | | | More than High School Education | | |
| | | Actual | Expected | Difference | Actual | Expected | Difference | Actual | Expected | Difference |
| Involuntary Part-Time Employment-to-Population Ratio (%) | 2014 | 2.39 | 2.47 | -0.08 | 3.04 | 3.25 | -0.20 | 1.79 | 2.01 | -0.22** |
| | 2015 | 2.07 | 2.32 | -0.25** | 2.72 | 3.22 | -0.50** | 1.50 | 1.89 | -0.40** |
| | 2016 | 1.89 | 2.22 | -0.33** | 2.48 | 3.20 | -0.72** | 1.43 | 1.85 | -0.41** |
| Voluntary Part Time Employment-to-Population Ratio (%) | 2014 | 8.11 | 7.58 | 0.53** | 4.75 | 4.46 | 0.29** | 6.27 | 6.05 | 0.22 |
| | 2015 | 8.16 | 7.49 | 0.67** | 4.91 | 4.45 | 0.46** | 6.11 | 5.92 | 0.19 |
| | 2016 | 8.19 | 7.40 | 0.80** | 5.05 | 4.45 | 0.60** | 6.21 | 5.77 | 0.44** |

| | Year | All | | | Women | | | | | |
|--|------|--------|----------|------------|-------------------------------|----------|------------|---------------------------------|----------|------------|
| | | Actual | Expected | Difference | High School Education or Less | | | More than High School Education | | |
| | | Actual | Expected | Difference | Actual | Expected | Difference | Actual | Expected | Difference |
| Involuntary Part-Time Employment-to-Population Ratio (%) | 2014 | 2.39 | 2.47 | -0.08 | 3.11 | 3.00 | 0.11 | 2.08 | 2.16 | -0.08 |
| | 2015 | 2.07 | 2.32 | -0.25** | 2.77 | 2.77 | 0.00 | 1.75 | 2.00 | -0.25** |
| | 2016 | 1.89 | 2.22 | -0.33** | 2.46 | 2.59 | -0.14 | 1.60 | 1.90 | -0.31** |
| Voluntary Part Time Employment-to-Population Ratio (%) | 2014 | 8.11 | 7.58 | 0.53** | 8.83 | 8.13 | 0.70** | 11.48 | 10.95 | 0.53 |
| | 2015 | 8.16 | 7.49 | 0.67** | 8.88 | 8.12 | 0.76** | 11.57 | 10.61 | 0.96** |
| | 2016 | 8.19 | 7.40 | 0.80** | 9.02 | 8.09 | 0.93** | 11.45 | 10.47 | 0.98** |

Source: Authors' analysis of Current Population Survey data from 2000 to 2016.

Notes: Part-time status (working fewer than 30 hours per week) is based on hours worked last week. Expected labor market outcomes are based on regression models using data through 2013. See appendix for details of regression models. ** p-value < .05

Figure 5. Voluntary Part-Time Employment-to-Population Ratio



Source: Authors' analysis of Current Population Survey data from 2000 to 2016.

Notes: Voluntary part-time employment-to-population ratio is computed for nonelderly adults. Voluntary part-time employment is defined as working fewer than 30 hours in the last week and working part-time for noneconomic reasons. Expected rates are from a regression using the previous year's voluntary part-time employment-to-population ratio, current opposite age and opposite gender unemployment rate, previous year's unemployment rates, state, year, age, sex, race and ethnicity, education, marital status, and number of children as predictors. See appendix for details of the regression specification.

DISCUSSION

Based on data through 2016—three years after implementation of the ACA’s major coverage provisions—we find no evidence that the ACA has been a job killer. We find no statistically significant adverse impact on employment rates or total hours worked in the economy. Even when we focus on nonelderly adults with a high school education or less, who are more likely to be affected by the ACA, we see no effects on employment or average hours worked per week. Policymakers should consider this lack of a detectable economy-wide employment effect alongside the substantial health coverage gains (20 million newly insured Americans) made under the ACA.^{11,12}

The CBO’s assumption that the ACA would reduce the number of hours worked by 1.5 to 2.0 percent from 2017 to 2024 was a key input to their dynamic scoring of repeal legislation. In its 2015 analysis of the budgetary effects of repealing the ACA (without replacement legislation), the CBO estimated that repealing the ACA would increase the federal budget deficit by \$353 billion over the next 10 years if there were no labor market effects or other macroeconomic repercussions of repeal. If there were labor market effects the increase in the deficit would be considerably smaller. The evidence we presented suggest that there are few labor market effects of the ACA, which suggest repeal would increase the federal deficit by a larger amount.^{6,13} Three years after implementation of the ACA’s main provisions and two years after the phased-in implementation of the ACA’s employer mandate, we see little if any evidence that the ACA adversely affected the labor market. But the labor market effects of the ACA may still be playing out, whether because of delayed implementation of the employer mandate or because of lagged labor supply responses by individuals.

Although we found no effect on employment or hours worked per week, we do find evidence that the level of part-time work has fallen since 2013 by less than the value expected in the context of recovery from the Great Recession and falling rates of unemployment. In 2016, the share of nonelderly adults working part-time was about half a percentage point higher than expected based on pre-2014 patterns. Since 2013, the level of involuntary part-time work is slightly lower than expected. The relatively slow decline in overall part-time work since 2013 appears to be driven almost entirely by a shift in labor supply choices by workers and not by labor demand, and to be largely concentrated among women. Our findings are therefore inconsistent with employers reducing workers’ hours to avoid penalties under the ACA’s employer mandate. Indeed, if anything we find lower-than-expected involuntary part-time employment. Instead, we find that the relative increase in part-

time work is composed entirely of a higher-than-expected level of voluntary part-time work.

Whether the ACA caused the elevated level of voluntary part-time work since 2014 is unclear. The subsidized coverage available under the ACA could lead some workers to cut back their hours because of an income effect or because of the availability of coverage outside of full-time employment. However, we would expect such an effect to apply more strongly to workers with a high school education or less; people in this group tend to have lower incomes and are more likely to be eligible for subsidized coverage. Instead, we find nearly equivalent effects for those with a high school education or less and those with more than a high school education. However, the higher-than-expected rate of voluntary part-time employment was concentrated among women. Rates of part-time work for women, including relatively educated women, are higher than for men, and research shows that women’s labor supply remains more responsive to work incentives than men’s.⁹ Therefore, women (including those with higher educational attainment) may be more likely to adjust their employment in response to ACA incentives.

Our findings for part-time work are consistent with some earlier studies and differ substantially from others. Using data through June 2015, Moriya, Selden, and Simon found that the ACA had little effect on part-time work overall and did not increase involuntary part-time work from 2012 to 2015 in firms with 50 or more employees, after adjusting for unemployment rate changes.¹⁴ Mathur, Slavov, and Strain found a shift toward part-time work from 25 to 29 hours per week, but the shift was not more pronounced among workers expected to be more affected by the employer mandate.¹⁵ The Center for Economic and Policy Research highlighted an increase in voluntary part-time work starting in 2014, breaking the past trend.¹⁶ The findings of two recent working papers contrast with the findings presented here. Even and MacPherson used CPS data up to 2014 and compared trends in part-time work across industries and occupations expected to be more or less affected by the employer mandate using a difference-in-differences approach; the authors concluded that around 1 million workers shifted to involuntary part-time status as a result of the ACA.¹⁷ Dillender, Heinrich, and Houseman constructed a comparison group using Hawaii, which already had an employer mandate that was stricter than the ACA’s, and concluded that the ACA increased involuntary part-time work by a half-million workers in the retail, accommodations, and food service sectors.¹⁸ Although a detailed review is beyond the scope of this brief,

we believe a closer look at modeling assumptions is needed in studies that claim to find a causal link between the ACA and involuntary part-time work.¹⁹

Though this brief examines potential overall effects of the ACA, a number of earlier studies have investigated the specific impacts of the ACA's Medicaid expansions on labor supply.^{3,20-22} Despite finding substantial increases in Medicaid coverage and corresponding decreases in uninsured rates following the expansions, these studies have consistently found little to no evidence of reductions in hours worked attributable to Medicaid expansion. This suggests that if the ACA caused the increase we observed in voluntary part-time work, a mechanism other than the Medicaid expansions may be at work. Marketplace subsidies for low-income people may play a role. Also, the availability of non-employment-based coverage without restrictions on pre-existing conditions may have reduced job lock and allowed individuals to work their preferred number of hours per week.

In sum, we find no evidence to support claims that the ACA has been a job killer. We see little to no overall effects on employment or work hours, as some have predicted. We find no evidence that the employer mandate caused employers to reduce worker hours below 30 per week against the workers' wishes. We do find an increase in voluntary part-time work above expected levels, which may be attributable to the ACA. Voluntary shifts to part-time work in response to newly available health insurance, possibly driven by subsidies, should enhance the welfare of the people affected. Our findings are consistent with the CBO's determination that the main effects of the ACA on employment would work primarily through labor supply, not labor demand. However, although the CBO predicted that the ACA would reduce the total number of hours worked by at least 1.5 percent by 2017, our evidence suggests a much smaller, or even, no effect of the ACA on labor supply. Based on this evidence, after three years of implementation of the ACA's major provisions, it appears that the ACA has increased health insurance coverage for 20 million Americans with little or no adverse effects on employment.

APPENDIX

Methodological Approach

We use data from the monthly files of the Current Population Survey (CPS) from January 2000 through December 2016. The CPS is the federal government's main source of information about employment and the U.S. labor force. We limit the sample to nonelderly adults (ages 18 to 64). The CPS monthly files provide approximately 900,000 to 1 million observations per year and information on the demographic characteristics, labor market status, and state of residence of people in our sample. Because analyses using all nonelderly adults may obscure effects on the most-affected subgroups, we also conduct analyses for samples stratified by gender and educational attainment. Adults with a high school degree or less are more likely to have lower incomes and therefore are more likely to be affected by the ACA's Medicaid expansions or subsidies for marketplace coverage.

We examine three labor market measures: employment at the time of the survey, usual number of hours worked per week among those who are employed, and part-time employment (measured as those who report working fewer than 30 hours per week). We further investigate the type of part-time work by dividing part-time status into voluntary part-time work (measured as those who worked 0 to 29 hours in the previous week and who report working part-time for "noneconomic reasons") and involuntary part-time work (measured as those who worked 0 to 29 hours in the previous week for "economic reasons"). We report average values for each labor market outcome from 2000 to 2016 to show recent changes within the context of the longer-term trend, spanning a period that contains two recessions and two subsequent economic recoveries.

Our analysis focuses on changes in the trend of each outcome and, specifically, whether there was a distinct change in that trend in 2014, when the ACA was implemented. A noticeable change in the trend from 2014 to 2016 is evidence of the ACA's impact. However, changes in the trends of the employment outcomes after 2014 may be caused by changes in other determinants of labor supply and labor demand. Most notably, the labor market has been slowly recovering since the unemployment rate reached a peak of 10 percent in October 2009 during the Great Recession. Accordingly, employment and hours worked have generally been increasing since 2010 for reasons unrelated to the ACA.

To isolate the effect of the ACA from other factors that affect labor market outcomes, we use regression methods to generate a counterfactual (predicted) outcome for the years after 2013.

Predicted values of an outcome are constructed from estimates of the following regression model:

$$(1) Y_{agjt} = \alpha_0 + \alpha_1 Y_{j(t-1)} + \alpha_2 UNEMPLOYED_{a'g'jt} + \alpha_3 UNEMPLOYED_{agj(t-1)} + \alpha_4 TIME + \beta_j + X'_{agjt} \Gamma + \varepsilon_{agjt}$$

In equation 1, the dependent variable Y is one of the four measures of labor market outcomes for individuals belonging to age group a , gender g , state j , and in year t . The first three explanatory variables are, in order, the previous year's mean value of the outcome measured at the state-year level, the current year's unemployment rate of the opposite gender and opposite age group (noted as a' and g') measured at the state-year level, and the previous year's mean value of own-gender and own-age group unemployment rate measured at the state-year level. Though it is important for our model to incorporate information on the current year's business cycle through changes in the unemployment rate, the "own-group" unemployment rate is mechanically related to the labor outcomes measured and could introduce bias in our estimates. To break this mechanical link while retaining business cycle information from the current period, we instead use the current unemployment rate of the group of individuals of the opposite gender and age group. For example, we match the current unemployment rates of men ages 18 to 44 and women ages 45 to 64 (and vice versa) to break the mechanical relationship between the outcome measure and the unemployment rate, while retaining much of the ability of unemployment rates to predict other labor market outcome measures. We also include a linear time trend, $TIME$, state fixed effects β_j , and a set of individual level covariates X : age-by-gender dummy variables, race and ethnicity dummy variables, education and marital status dummy variables, and the number of own children.²³

We estimate equation 1 using data up to 2013 only. Thus, the predicted values for 2014 to 2016 are forecasts based on known values of demographic and unemployment measures in each year. For 2015 and 2016, the forecast replaces the previous year's actual mean outcome explanatory variable with the model-predicted estimate of the previous year's mean outcome. We selected this specification over others we considered (e.g., specifications without the previous year's average value of the dependent variable, without

unemployment rates, or with only the contemporaneous unemployment rate) using a best fit criterion (AIC), or how well the models' predictions fit actual data for 2000 to 2013. Though deviations of actual levels of labor market outcomes from their predicted values in 2014 may indicate effects of the ACA, such deviations may also result from "unexpected" changes in the

labor market that are independent of the ACA (i.e., economic changes that are not predicted by the regression model represented in equation 1). To speed computation, we collapse the individual-level CPS data to the state * age group * gender * education group * year-level before model estimation.

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