## Economic Trends Commentary



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## Examining the Effects of the Federal Minimum Wage Proposal

In January of this year President Obama issued an executive order raising the effective minimum wage for federal contract workers to $\$ 10.10$ from $\$ 7.25$ and pushed for legislation in his State of the Union address that would do the same for all workers by 2016. While the arguments both for and against changing the minimum wage are legion, the detailed impact of these changes is far less discussed. In this report we leverage unique data from The Work Number ${ }^{\circledR}$, a proprietary Equifax database of more than 220 million income and employment records to shed light on some important effects of the proposed minimum wage change.

## Inflation and the Minimum Wage

The most common measure of inflation affecting consumers is the Consumer Price Index - All Urban Consumers (CPI-U), which measures the changes in price for a set "basket" of goods and services. For the past four years it has averaged just under 2 percent per year with a long-term average of 2.5 percent. The nominal minimum wage is the wage paid in current dollars, while the real minimum wage is defined as the wage rate adjusted for inflation relative to a baseline period. The real minimum wage is useful as it allows us to measure pay in terms of the actual goods and services that can be bought with this wage. In Figure 1 we've charted the real and nominal federal minimum wage rates going back to 1955 . For the 25 -year period between 1955 and 1980, the average real minimum wage (with 2013 as the reference year)
was $\$ 8.98$. With no adjustments made to the federal minimum wage rate during the next decade, the real minimum wage fell sharply until 1990. It has remained mostly level since; for the past 23 years, the real minimum wage has averaged $\$ 6.96$.

If inflation continues as expected, the real purchasing power of an hour of labor at the current $\$ 7.25$ minimum wage will set a 62 -year low in 2017. The federal minimum wage is not automatically indexed for inflation - Congress must pass legislation to make changes in the rate. The President's proposal would both raise the level of the minimum wage to $\$ 10.10$ over two years and link future changes to the annual inflation rate similar to how social security payments are adjusted.

Figure 1: Historical Perspective of the Federal Minimum Wage


Source: Equifax, US Department of Labor, US Department of Commerce

## Aggregate Wage Growth in the United States

Using the proprietary employment and income database from Equifax Workforce Solutions, average annual pay in the United States has increased modestly over the past five years; however the growth is due almost entirely to increases in compensation for salaried workers. Total compensation for salaried employees grew steadily from \$55,230 in 2009 to \$63,815 in 2013 while the annual average total compensation for hourly workers grew from \$27,050 in 2009 to $\$ 27,515$ in 2013. [See Figure 2]

Moreover, hourly annual compensation was lower in 2013 than in 2012. This drop in hourly average annual compensation was primarily driven by a drop in the average hourly wage, as average hours worked increased by about a tenth of an hour [Figure 3]. The dynamics behind this suggest that hourly jobs are skewing towards lower wages. This matches the consumption patterns of the American consumer: retail purchasers are shifting more and more towards value-oriented, discount retailers and away from traditionally middle-class retail stores. Normally this far into a recovery, we would expect to see wages and consumer demand rising much more sharply, with the former supporting the latter.

Figure 2: Average Annual Pay


Source: Equifax Workforce Solutions
Figure 3: Average Hourly Job Compensation


## What Are Minimum Wage Jobs?

Jobs that pay the minimum wage are concentrated in particular industries and job roles. Figure 4 shows the industries with the largest number of employees that would be impacted by an increase in the national minimum wage to $\$ 10.10$. General merchandise stores such as big-box retailers lead with 23.4 percent of the share of lower-wage workers. Food services and drinking places (i.e., restaurants and bars) have a 14.9 percent share of these workers, while food and beverage stores (i.e., supermarkets) have the third highest share. When combined, these three industry segments account for 50.6 percent of workers who make less than $\$ 10.10$ an hour.

Unsurprisingly, the job roles that have the largest share of low-wage workers are related to these same industries: retail sales associates, cashiers, restaurant
crew workers, grocery clerks and other retail workers account for nearly 50 percent of this group. The true proportion is likely even higher but is muted due to the challenge of translating job titles across firms into similar roles. One employer's retail sales associate is another's sales professional. [See figure 5]

Under federal minimum wage law, workers are entitled to the higher of the federal or state minimum wage. Certain workers, such as full-time students, tip-earners, and workers with disabilities, may be paid less than the effective minimum wage. In some cases, like student learners, their wage is tied to the effective minimum wage, but in others, such as with tip-earners, a separate minimum is statutorily specified.

Figure 5: Job Roles with the Most Employees Paid Less Than \$10.10/Hour


Source: Equifax Workforce Solutions: Active hourly employees on The Work Number ${ }^{\circledR}$, January 2014. Assumes those below $\$ 7.25 / h r$ are tip wage workers, full-time students or other exceptions to the national minimum wage law.

## What Are Minimum Wage Jobs? Continued

In Figure 6, we show for each age band of hourly workers the share who earn less than the current federal minimum wage of $\$ 7.25$, the share that earns at least $\$ 7.25$ but less than the new proposed minimum wage of $\$ 10.10$, and those who currently earn more than the proposed higher minimum wage. While the effects of student-learner and youthemployment exceptions weigh on those younger than 20 , thereby putting 6.5 percent in the very low wage group, 5.8 percent of workers in the 20-29 years old group and 2.7 percent of workers aged 30-39
years find themselves also earning low base wages. Among those in or nearing retirement just 0.4 percent of hourly workers earn less than the standard federal minimum wage.

Workers in their prime earning years have low shares of low wages, with more than 77 percent of hourly workers aged 30-59 years earning more than \$10.10 per hour. The share of high wage earners drops for workers over 70 years old, but remains nearly 50 percent higher than the share for those in the 20-29 age group. It appears that experience pays.

Figure 6: Percentage of Hourly Workers by Pay Band \& Age


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## What is the Cost (Benefit) of Raising the Minimum Wage?

Economists are fond of looking at the number of winners and the number of losers from a particular policy and declaring it neutral or better so long there are more winners than losers. Nevertheless, it is important to remember that the winners (e.g., those who receive a higher wage) rarely share their new riches with the losers (e.g., those who lose their jobs). While the data from Equifax has little to offer with respect to estimating the numbers of winners and losers or determining exactly which individuals will gain and which will lose, it does offer a unique insight into the impact by state on employer payroll costs or, viewed from the other side, the increase in compensation that workers will receive in aggregate.

In Figure 7 we assume that no jobs are lost as a result of an increase in the minimum wage and that no other wages are increased initially by this change (specifically, wage escalation clauses tied to the minimum wage are not accounted for). Some states already have minimum wages that are significantly higher than the current federal minimum, so the effect of raising the rate would naturally be smaller in those states. Others have not only a binding federal minimum wage but a large proportion of their hourly jobs pay that rate - their costs will be more significant.

Figure 7: Average Hourly Payroll Wage Cost Increase by State From an Increase in the Federal Minimum Wage to \$10.10


## What is the Cost (Benefit) of Raising the Minimum Wage? Continued

"The impact of a change in the federal minimum wage would increase average payroll wage costs by 2 percent or less."

The estimated effects shown in Figure 7 are based on nearly 5 million active hourly workers from The Work Number ${ }^{\circledR}$ database being paid between $\$ 7.25$ and $\$ 10.09$ per hour as of January 2014. Impact by state is calculated using a combination of the current percentage of hourly workers being paid \$7.25-\$10.09 and the mean hourly rate for those workers. For example, while Florida has the largest percentage of workers earning between $\$ 7.25$ and $\$ 10.09$ (39.4 percent), those workers are paid on average $\$ 8.69$ per hour. The impact would be greater in Mississippi because, even though their percentage of workers in this pay range is less ( 38.3 percent), average rate for those workers is only $\$ 8.43$ per hour.

Due to the relatively higher wages in California, Connecticut, Maryland, North Dakota, Oregon, Washington, and Wyoming, the impact of a change in the federal minimum wage would increase average payroll wage costs by 2 percent or less in these states under our calculation. On the opposite spectrum, employers in seven states in the mid-Atlantic and East South Central Census regions would see their average payroll wage costs increase by at least 4 percent.


## Labor Turnover

An additional effect of an increase in the federal minimum wage is the emergence of new opportunities for workers who already make a wage near $\$ 10.10$. The best and most ambitious workers will have the chance to find a job that better suits their needs, whether for more or fewer hours, a better boss or improved working conditions. We examined labor turnover among employees in The Work Number data and found some striking results.

For this analysis, we restricted our data to active workers on The Work Number® from January 2012 through January 2014 who separated from one employer and found a job with a new employer within 31 days and who had at least 29 days tenure in both jobs. The use of this short window was designed to identify those workers who most likely have suitable
options available to them when they separate from their previous employers. We found that many workers appear to choose new jobs for reasons other than money.

In Figure 8, hourly workers that remained hourly workers after a job change accounted for 63 percent of total short-gap turnover. Nearly two-thirds of these workers left for more base pay and the median change in the pay of all hourly-to-hourly job changers was 25.5 percent. About 18 percent of hourly workers who changed jobs moved to a salaried position, and 74.8 percent of them received higher base-pay compensation. The overall median change in the pay of hourly-to-salaried job changers was 38.8 percent.

Figure 8: What Happens to Employees When They Leave?

| Turnover Type | \% of Turnover | \% for More Pay | Median Pay Change |
| :---: | :---: | :---: | :---: |
| Hourly to Hourly | $63 \%$ | $63.4 \%$ | $25.5 \%$ |
| Hourly to Salary | $14 \%$ | $74.8 \%$ | $38.8 \%$ |
| Salary to Hourly | $10 \%$ | $57.4 \%$ | $11.6 \%$ |
| Salary to Salary | $13 \%$ | $66.0 \%$ | $12.7 \%$ |
| Total Tracked | $100 \%$ | $64.8 \%$ | $22.8 \%$ |

Source: Equifax Workforce Solutions. Active hourly workers on The Work Number ${ }^{\circledR}$ from January 2012 through January 2014 who separated from one employer and found a job with a new employer within 31 days and who had at least 29 days tenure in both jobs.

## Labor Turnover Continued

In Figure 9 we looked more deeply at hourly-tohourly worker short-gap turnover. In this analysis, we determined the dominant reason for a change in pay and labeled the groups accordingly.

While 42 percent of these workers found jobs that offered both more hours and higher wages, more than 35 percent of hourly workers took a new job that offered a lower wage but about the same hours, about the same wage but fewer hours, or both a lower wage and fewer hours. Longer job searches should lead to more options, but the large number of workers that chose a job with fewer hours suggests that they weigh heavily other components of the job in addition to their paycheck in their choice of employer.

Figure 9: Turnover of Hourly Workers

- Impact on Pay


Source: Equifax Workforce Solutions. Active hourly workers on The Work Number ${ }^{\circledR}$ from January 2012 through January 2014 who separated from one employer and found a job with a new employer within 31 days and who had at least 29 days tenure in both jobs.

Lastly, we examined the relationship between the number of hours worked and turnover (see Figure 10). While there is considerable noise in the data, the trend is clear: firms that offer their workers more hours tend to have less turnover. Voluntary turnover falls by about 5 percentage points for every hour added to the average workweek. Given the potentially high cost of turnover - not only the dollars and hours spent hiring new talent, but also the loss of productivity and the cost of training new employeesit may be that many firms will find it advantageous to maximize hours, particularly if high-performing employees have more options available should the federal minimum wage increase.

Figure 10: Voluntary Turnover Rates - Hourly Jobs By Average Hours (25-35 Hours)


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## Parting Thoughts

Labor force dynamics are complex during the best of conditions. Current conditions in the wake of the Great Recession are positively enigmatic. Given the large share of the unemployed that have been out of work for half a year or more, the rapidly falling labor force participation rate, the burden of student loan debt carried by young adults, and the high unemployment rate among people aged 16-24 years, the labor market in the United States is very different from any other period in our history.

Proponents of a higher federal minimum wage are looking to improve the economic lives of people at the bottom of the income scale, while those opposed point out the higher costs for employers and the
workers who may be pushed out of their current job as a result of the higher mandated wage. The dynamics presented here are policy neutral - neither arguing for or against the current proposal-but do underscore the nuances of the effects a higher wage might have.

Reducing hours or workers will reduce the quality of customer service or productivity and increase costs due to voluntary turnover. It will fall to each employer to decide either to bear the direct cost of the higher wage or the indirect cost that mitigating the higher minimum wage might bring through other labor reductions. These are not easy decisions to make, and they all have a human cost.

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[^0]:    Source: Equifax Workforce Solutions

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