GRAND CANYON INSTITUTE

Policy Blog

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Impacts of a Higher Minimum Wage

Dave Wells, Ph.D., Research Director

Key Findings

An analysis by the Grand Canyon Institute (GCI) finds that Arizona's voter-approved minimum wage increase implemented in steps since January 2017 have largely benefitted food service workers in the state. Key findings from GCI's research include:

- 14% increase in food service incomes.
- 19% increase in food service hourly pay.
- No clear evidence of job losses in the food service sector.
- Some evidence that average food service hours worked may have declined by about 1 hour per week.

In addition, other researchers have found evidence of side benefits of a higher minimum wage including reduced levels of debt, expanded credit access, reduced suicides, and reduced reincarceration rates.

In-Depth Analysis

A week ago the nonpartisan (yes-such things still exist) Congressional Budget Office (CBO) released its scorecard on a Democratic proposal to raise the federal minimum wage from the present $7.25 an hour to $15 an hour by 2025. The CBO also looked at a $12 minimum wage. Due to voter approval of Prop. 206 in 2016, Arizona's minimum wage is slated to increase to $12 in 2020 and adjust for inflation after that. Assuming a 2.5 percent annual inflation rate, in 2025 Arizona's minimum wage would be $13.58.

This time, the CBO estimates primarily positive outcomes with minimal negative impacts if the federal minimum wage was increased to $12 in 2025. A $15 minimum wage would improve the incomes of 17 million Americans at an anticipated loss of 1.3 million jobs.

The academic research splits into two camps—one camp finds the impact is overwhelmingly positive while the other set of findings are more traditional in finding significant job losses or cut backs in hours. The CBO tries to split the difference with their estimates. However, one side is more likely to be accurate, but which one isn't yet clear as the other challenge is that most of the recent significant minimum wage increases have not been in place long enough to enable deeper analysis.

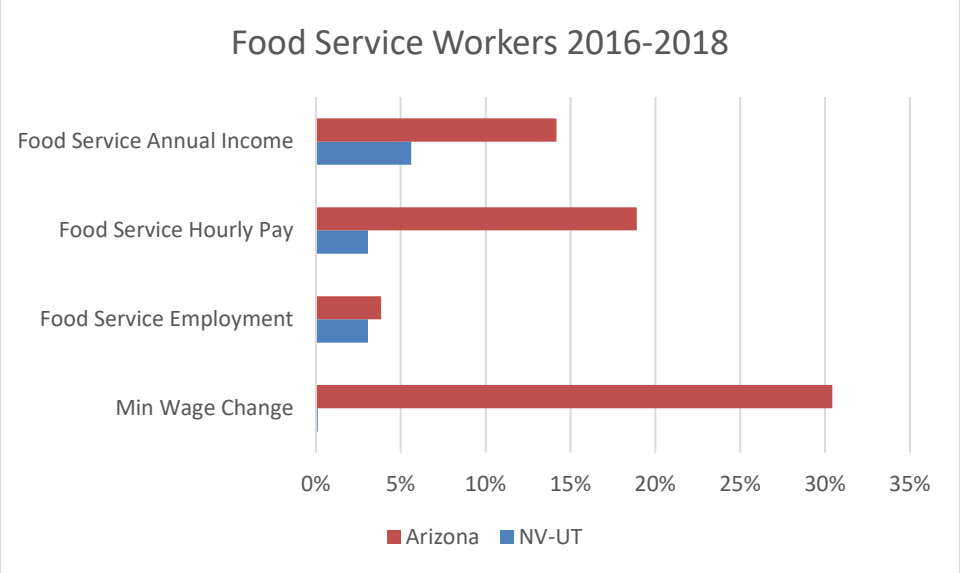
For this blog, GCI tries to begin to fill that gap by looking at a group of workers impacted by the minimum wage, food service workers, and comparing two states that did not change their minimum wage, Nevada and Utah, with Arizona. Nevada and Utah, like Arizona, have been experiencing robust population growth which is a key part of their overall economic growth.

In 2016, GCI followed the CBO's 2014 methodology when estimating the impact of the Prop. 206 ballot initiative. In that analysis, GCI estimated that a $12 minimum wage in 2020 would lead to approximately 13,000 fewer jobs with 790,000 workers receiving positive hourly wage gains.

In evaluating the impact of Arizona's minimum wage increase so far, **GCI finds no clear evidence of job losses, but some evidence suggesting that average hours worked may have declined by about 1 hour per week through May 2018. The net result appears to be a significant improvement in overall incomes for food service workers, more than double than what was experienced in Nevada and Utah.** This analysis relies on aggregate data from two different federal surveys of establishments; therefore, the results should be interpreted with caution. More details are available in the Appendix section below.

Figure 1 shows that **food service incomes rose 14 percent in Arizona compared to 6 percent in Nevada and Utah combined while hourly pay rose 19 percent in Arizona compared to 3 percent in Nevada and Utah combined**. Note the income and hourly pay results are from different surveys. If those surveys are consistent with each other, they suggest weekly hours somewhat increased in Utah and Nevada and diminished by about 1 hour per week in Arizona. Arizona saw slightly more robust growth in the sector than Nevada and Utah combined. From 2012-2016 (see Figure 2 in Appendix), Arizona had similar performance in these categories as Nevada and Utah combined.

Figure 1



Source: Bureau of Labor Statistics Quarterly Census of Employment and Wages and Occupational Employment Statistics Survey (note-annual income from Quarterly Census is a subset of the group identified in the occupation survey)

Additional benefits to increasing the minimum wage

A higher minimum wage appears to have additional benefits including less debt, expanded credit access, reduced suicides, and reduced reincarceration rates. This data is not from Arizona specifically.

Economists from the Federal Reserve Bank of Boston and MIT found that the lower debt suggests the **higher minimum wage enables many people to pay down what they owe**. Likewise, a higher minimum wage correlates with an **improved access to credit**. Importantly, the local price inflation impact for Arizona's 30 percent increase in its minimum wage from their estimate would be less than one percent.

UC-Berkeley economists looked at "deaths of despair" which have been on the rise for those lacking a bachelor's degree. Researchers found no impact on deaths of despair caused by drugs, especially those related to the opioid epidemic. However, they did find that **a 10 percent increase in the minimum wage was associated with a decrease in non-drug related suicides by 3.6 percent among those with a high school degree or less.** As Arizona will raise its minimum wage by about 30 percent (adjusted for inflation), this could reduce non-drug related suicides in the state by more than 10 percent among those with a high school degree or less—a significant bonus.

In addition, the UC-Berkeley economists found that **an increase in the Earned Income Tax Credit (EITC) of 10 percent was associated with a reduction in suicides in the same group by 5.5 percent** —many states have an additional state EITC pegged to 10 percent of the federal credit. Arizona does not have a state EITC.

A report in the American Journal of Preventive Medicine in May of this year found that **a one dollar increase in the minimum wage was associated with a decrease in the overall suicide rate by 1.9 percent**. That roughly suggests that in the 10 years after Arizona's higher minimum wage goes into effect that more than 500 lives in Arizona will be saved.

Finally, one central area of concern with increases in the minimum wage is that people who are difficult to employ are most likely to suffer. Amanda Agan of Rutgers University and Michael Makowsky of Clemson University have a National Bureau of Economic Research working paper that finds **an increase in the minimum wage of $0.50 is associated with reduction in returns to prison for men and women by 2.8 percent**. This result suggests that higher wages may be more likely to lure people into legal activity despite any negative employment effects. Arizona has increased its minimum wage by nearly $3 ($8.05 in 2016 to $11 today), so this could be responsible for reducing recidivism by more than 15 percent from the current three-year recidivism rate of approximately 40 percent to around 33 percent. We should watch recidivism rates going forward to see if that is borne out.

Arizona's increase in the minimum wage has been fortuitous to have occurred during an economic expansion, which has likely mitigated negative impacts. The data suggests that Arizona's minimum wage increase has had overall net positive impacts to date on the food service sector, a sector with a strong concentration of workers earning at or just above the minimum wage.

Dave Wells holds a doctorate in Political Economy and Public Policy and is the Research Director for the Grand Canyon Institute, a centrist fiscal policy think tank founded in 2011. He can be reached at DWells@azgci.org or contact the Grand Canyon Institute at (602) 595-1025, ext. 2.

The Grand Canyon Institute, a 501(c) 3 nonprofit organization, is a centrist think tank led by a bipartisan group of former state lawmakers, economists, community leaders and academicians. The Grand Canyon Institute serves as an independent voice reflecting a pragmatic approach to addressing economic, fiscal, budgetary and taxation issues confronting Arizona.

Grand Canyon Institute

P.O. Box 1008

Phoenix, Arizona 85001-1008

GrandCanyonInsitute.org

Appendix:

Data comes from two federal surveys of employers.

Source of Annual Earnings: The Quarterly Census of Employment and Wages (QCEW) is a tabulation of employment and wages of establishments that report to the state Unemployment Insurance programs, representing about 97 percent of all wage and salary workers. The tabulation is completed by the Bureau of Labor Statistics in the U.S. Dept. of Labor. By state it provides data by industry, not occupation. Food service workers need to work in a food service establishment to be included. A business in another industry that does not contract out its food service would have its food service workers not included as food service workers in this survey, but in whatever industry the business falls under. So the QCEW represents the vast majority but not all food service workers in its reporting by industry. For industry at the state-level, total employment and weekly and annual earnings (but not hours) are provided. GCI only included those employed in the private sector (so not governmental) food services and drinking places (NAICS 722).

Source of Employment and Hourly Wages: Occupational Employment Statistics (OES) is a survey conducted semi-annually in May and November by the Bureau of Labor Statistics in the U.S. Dept. of Labor. It has the same sampling frame as the QCEW—but rather than being a collection from all data, it is a representative sample. For May of each year an annual report is issued though the report is released in late March of the following year. Consequently, May 2018 is the latest data available. The Standard Occupational Classification (SOC) system is used. One of the 23 major groups is food preparation and serving related occupations. That data was used for this report. 461 occupations are

broken into those 23 major groups. This includes both private and public employers and is inclusive of an occupation across industries, so whether or not food service is contracted out does not matter. Consequently, the OES is more inclusive of food service workers and has a higher employment total for that category than the QCEW, which is why it was used for employment. Data tables for the OES 2018 and historically can be found here.

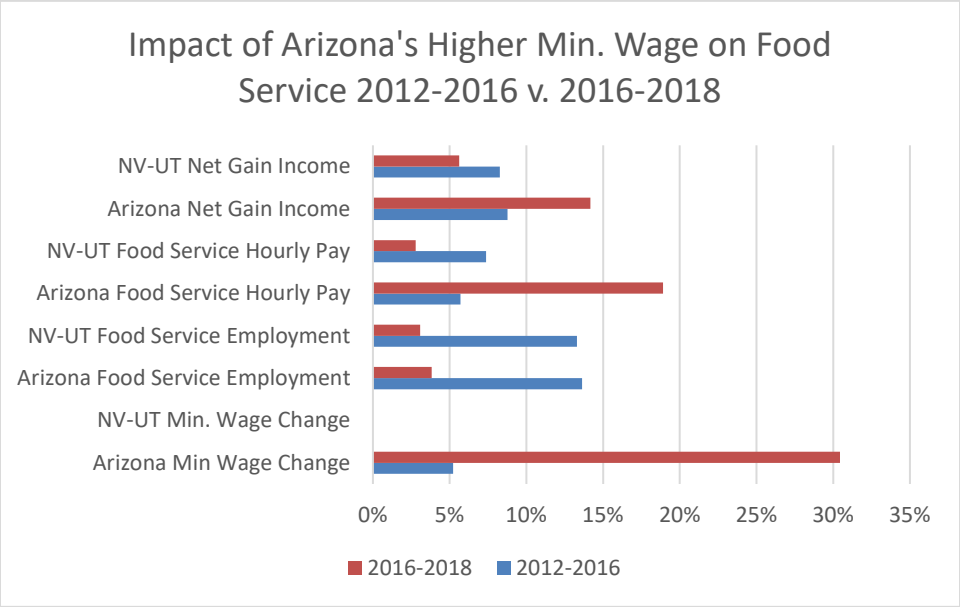
Below are the occupations that fall under food preparation and serving related occupations:

35-0000	Food Preparation and Serving Related Occupations	Major
35-1011	Chefs and Head Cooks	Detailed
35-1012	First-Line Supervisors of Food Preparation and Serving Workers	Detailed
35-2011	Cooks, Fast Food	Detailed
35-2012	Cooks, Institution and Cafeteria	Detailed
35-2014	Cooks, Restaurant	Detailed
35-2015	Cooks, Short Order	Detailed
35-2019	Cooks, All Other	Detailed
35-2021	Food Preparation Workers	Detailed
35-3011	Bartenders	Detailed
35-3021	Combined Food Preparation and Serving Workers, Including Fast Food	detailed
35-3022	Counter Attendants, Cafeteria, Food Concession, and Coffee Shop	detailed
35-3031	Waiters and Waitresses	detailed
35-3041	Food Servers, Nonrestaurant	detailed
35-9011	Dining Room and Cafeteria Attendants and Bartender Helpers	detailed
35-9021	Dishwashers	detailed
35-9031	Hosts and Hostesses, Restaurant, Lounge, and Coffee Shop	detailed
35-9099	Food Preparation and Serving Related Workers, All Other	detailed

Figure 2 compares the 2012-2016 period when Arizona's minimum wage changed modestly adjusting for inflation from $7.65 to $8.05 (due to a prior ballot initiative), while Utah maintained the federal minimum wage of $7.25 and Nevada had a minimum wage of $8.25 for businesses that did not provide health insurance and $7.25 for those that did provide health insurance. As can be seen, the differences between Arizona and Nevada/Utah combined are very modest. By contrast from 2016-2018, clear differences emerge.

T**he decline of about 1 hour per week comes from combining the two results**. If the hourly wage from the OES is applied to the annual earnings of the QCEW, we get an implied number of hours worked. From 2012-2016 implied hours per employee in Arizona rose 3 percent, while for Nevada and Utah it rose 1 percent. From 2016-2018, implied hours declined 4 percent in Arizona and rose 3 percent for Nevada and Utah. The difference in implied annual hours worked for Arizona between the two time periods was 64 hours, which is approximately 1 hour less per week (52 weeks in a year). Presently, the implied annual hours for Arizona are still higher than Utah's implied annual hours, though less than Nevada's implied annual hours.

Figure 2


Impact of Arizona's Higher Min. Wage on Food Service 2012-2016 v. 2016-2018
NV-UT Net Gain Income
Arizona Net Gain Income
NV-UT Food Service Hourly Pay
Arizona Food Service Hourly Pay
NV-UT Food Service Employment
Arizona Food Service Employment
NV-UT Min. Wage Change
Arizona Min Wage Change
0%
5%
10%
15%
20%
25%
30%
35%
2016-2018
2012-2016