



## **New York's Experience after the Tipped Minimum Wage Increase**

*Restaurant worker wages, employment, and number of establishments have grown in the past two years.*

A new analysis of U.S. Bureau of Labor Statistics wage and jobs data shows that in the last two years since raising the tipped minimum wage, New York state saw a significant boost in take home pay — wages and tips — earned by full-service restaurant workers and, contrary to predictions by minimum wage skeptics, an increase in both the number of full-service restaurant jobs and full-service restaurant establishments.

A joint project by the Institute for Policy Studies and Restaurant Opportunities Centers United, this research advances previous findings published in the Washington Post on the impact of the 2015 increase in the tipped minimum wage in New York state.<sup>i</sup>

This research uses the most recent years of both statewide and county-level data to calculate the effect after two years of the tipped minimum wage increase on full-service restaurant workers state-wide compared to surrounding states, on full-service restaurant workers in New York border counties compared to all surrounding border counties, as well as a comparison of full-service restaurant workers on either side of the New York-Pennsylvania border in order to control for any unobserved factors.

This natural experiment technique simulates a standard practice for econometric studies of minimum wages called a difference-in-differences (DiD) model, which has been used by economists in the most widely publicized minimum wage impact studies in New Jersey and, recently, Seattle.<sup>ii</sup>

### **KEY FINDINGS**

- In the two years since New York's December 31, 2015 increase in the tipped minimum wage (hereafter TMW), those workers most affected, restaurant workers at full-service establishments, saw their average salaries go up nearly 10%, a larger increase than in any neighboring state (see Tables 1 and 2).
- At the same time, employment and number of establishments did not go down; in fact, full-service restaurant jobs in New York increased by over 4% and the number of full-service establishments grew by 10% (see Table 1).

- Full-service restaurant establishment growth in New York was higher than in any neighboring state (see Table 2).
- Full-service restaurant employment and establishment growth in New York border counties from 2015-2017 was higher than in the surrounding states (See Table 3).

A more exact measure of the effect can be seen by comparing restaurant workers in counties bordering each other along the New York-Pennsylvania border, the longest border New York has with a neighboring state.

Because counties just on either side of this border share essentially the same labor markets, economic conditions, and demographics (more than do New York and neighboring states as a whole), this econometric method controls for factors aside from the TMW that might otherwise impact restaurant worker wages and employment. On the county level:

- New York border counties saw average full-service restaurant worker salaries go up by 11.4% and employment increase by 1.2%. (See Table 4.)
- Pennsylvania border counties, which did not see a TMW increase, saw average full-service restaurant salaries go up 4% and employment grow by only 0.3%. (See Table 4.)

## BACKGROUND

New York's decision in 2015 to raise its TMW from \$5 to \$7.50 provides a useful case study for examining the effects of raising minimum wages, particularly among restaurant workers, who are paid below the regular minimum wage. Since New York is the most recent state to raise its TMW, it provides a useful comparison to neighboring states, which have TMWs ranging from the federal minimum of \$2.13 (New Jersey), to \$2.83 (Pennsylvania), \$3.75 (Massachusetts), \$5.25 (Vermont), and \$6.38 (Connecticut).

Opponents of raising the TMW, primarily the restaurant industry, argue that doing so would increase labor costs for restaurants, and cause them to either pass on costs to consumers and lose business, cut their workforce, or both, and in any case ultimately harm restaurant workers more than help them.

An analysis of data from the U.S. Bureau of Labor Statistics on the number of full-service restaurants (hereafter just "restaurants") and restaurant employees as well as restaurant worker earnings in New York state, for the year following the TMW increase, finds no evidence of pernicious effects for restaurant workers. First, a comparison of New York to neighboring states finds that in the first two years after the raise, New York restaurant workers experienced higher earnings and job growth than workers in surrounding states, and restaurant establishments grew at a faster rate than in surrounding states (see Table 3).

In addition, a more rigorous comparison of border counties along New York's longest border, that with Pennsylvania, which largely share the same socioeconomic conditions and thus isolates the effect of the TMW raise, finds that in the first two years after the raise, restaurant workers on the New York side of the border experienced higher earnings and job growth than workers on the Pennsylvania side of the border, along with comparable establishment growth

(see Table 4). In other words, all available BLS data indicate that the TMW increase in New York has helped restaurant workers earn significantly more in take home pay, including both wages and tips, without hurting them in terms of employment, and without hurting business in terms of establishment growth.

**DATA**

The data have been compiled from the Bureau of Labor Statistics’ Quarterly Census of Employment and Wages (QCEW), which tracks employment and earnings aggregated by industry across the U.S., including at the county level. We examined final annual data for 2015, 2016, and 2017, released on September 7, 2016, September 6, 2017, and September 5, 2018. This analysis looks at NAICS 7221: the BLS industry code for full-service restaurants (specifically restaurants in which workers make tips, unlike fast food restaurants), at the end of 2015 (when New York’s TMW raise went into effect) and the end of 2017, and compares the following indicators in counties on either side of the New York state border:

- Number of employees
- Number of establishments
- Total wages<sup>iii</sup>
- Average annual salary

A look at statewide data for all New York restaurants, from Dec. 31, 2015 to Dec. 31, 2017, shows the following (see Table 1):

**Table 1. New York statewide indicators for full-service restaurant employees**

	Number of employees	Number of establishments	Total wages (thousands)	Average annual salary
<b>End of 2015</b>	331,669	19,041	\$8,308,079	\$25,049
<b>End of 2016</b>	335,845	18,768	\$8,947,101	\$26,641
<b>End of 2017</b>	345,950	20,943	\$9,515,725	\$27,506
<b>Difference 2015-2017</b>	14,281	1,902	\$1,207,646	\$2,457
<b>Percent change</b>	4.3%	10.0%	14.5%	9.8%

We can see that in the year since New York State raised its TMW, a net of 14,281 more full-service restaurant workers were hired. Salaries for restaurant workers went up nearly 10%. This suggests that the TMW raise improved worker earnings without the drop in employment predicted by the restaurant industry. In fact, there was even a demonstrable year-over-year jobs increase. There was a slight decline in the number of establishments in the first year, followed by a substantial correction in the second year, leading to a net positive increase in the number of establishments of 10%. The nearly 6% difference between the change in employment compared

to the number of establishments suggests that a small percentage of small businesses were most impacted by the minimum wage increase, and that small businesses were the best positioned to take advantage of new opportunities associated with this impact.

However, these numbers alone may not tell us the full story. First, there are a lot of things going on in the economy statewide that affect these indicators aside from the TMW: there could have been an overall boom or bust in the state's economy — or even just in New York City alone — that would either counter or exaggerate whatever effect the TMW might have had. It's impossible to control for every factor that may have affected the restaurant industry, even within a single state and a single year, to isolate the effect of the TMW.

Second, the question remains, compared to what? We need to know not only if New York's restaurant workers benefitted from the TMW increase, but if they did so relative to restaurant workers elsewhere. Maybe restaurant worker wages and employment was going up nationwide. Perhaps New York state only looks good in isolation, but it actually fared poorer than other states and the TMW raise made growth slower than it might have been. This would be in line with current arguments raised by minimum wage skeptics today, who do not argue anymore that minimum wage raises necessarily cause businesses to slash payrolls, but rather cause them to hire fewer new workers in the future than they might otherwise.<sup>iv</sup>

### **METHODOLOGY FOR COMPARING BORDER COUNTIES**

In order to try to isolate the effect of the TMW and provide useful points of comparison, this study uses a quasi-experimental design that exploits a policy change which occurred in one state and not in neighboring states. Specifically, it follows the principles of the difference-in-differences model pioneered by David Card and Alan Krueger for their minimum wage studies and many subsequent ones by other scholars. In their 1993 NBER paper "Minimum Wages and Employment," they studied the change in New Jersey's minimum wage by comparing employment in fast food restaurants in New Jersey and neighboring Pennsylvania, based on the idea that fast food restaurants on either side of the border would have the same competitive pressures and labor pool, only those in New Jersey would suddenly start paying their workers more. Card and Krueger found the minimum wage raise improved wages with no significant impact on employment in New Jersey compared to Pennsylvania, contradicting economic orthodoxy that minimum wage increases would lead to layoffs by employers slashing payrolls.

Subsequent papers, both upholding or challenging Card and Krueger's findings, have tended to use the same DiD model, along with regression discontinuity design (RDD), to test the effects of other minimum wage increases, most recently in Seattle.

This study cannot replicate the full DiD methodology by surveying individual establishments, insofar as the BLS data aggregates numbers by county and not by establishment. However it follows the logic of this approach by comparing indicators for restaurants just on either side of the New York state border, given the fact that such counties, and the restaurants therein, are much more comparable than New York state is to, for example, the state of Pennsylvania as a whole.

Here we compare restaurant employment, establishment, and salary growth in New York

border counties compared to surrounding border counties. For the purposes of comparison, it is most helpful to look at the longest border between two states, New York and Pennsylvania. Other border areas present problems of comparison: the New York-New Jersey and New York-Connecticut borders are distorted by their proximity to New York City, a labor market unto itself. Massachusetts has just one county bordering New York, and while Vermont has five, 2016 BLS data are not available for one, Grand Isle County.

Additionally, Pennsylvania is a clearer control case because its TMW was last raised in 2007, and is only \$2.83. Other states, Connecticut and Vermont, have TMWs closer to New York’s, so the difference is not as stark. And the TMWs in Connecticut and Massachusetts, although set by laws passed prior to New York’s, have been increasing on a yearly schedule, and thus do not provide a static comparison.

Nineteen total counties border each other on the New York-Pennsylvania state border and which share the same economic indicators and labor pools. Thus any changes from the TMW increase would likely be seen most clearly by comparing counties along this border.

**RESULTS**

The following tables compare percentage changes only (for the sake of simplicity, not absolute changes). Indicators for which New York fared better are highlighted. First, it can be seen that New York as a whole fared better than surrounding states in establishment growth, total wages and salaries (see Table 2). This is, however, a crude comparison given that state-by-state comparisons do not control for many unobserved variables beside the policy change. A more controlled comparison can be made if we limit our study just to border counties of New York and counties just across the New York state border in Pennsylvania, New Jersey, Connecticut, Massachusetts, and Vermont. A six state border county comparison shows that employment, establishment, and average salary growth was higher in New York than in surrounding counties over the two-year period (see Table 3).

**Table 2. Comparison of Restaurant Indicators in New York and Surrounding States (2015-2017 % change)**

	Employment	Establishments	Total wages	Average salary
<b>New York</b>	4.3%	<b>10%</b>	<b>14.5%</b>	<b>9.8%</b>
<b>Pennsylvania</b>	3.2%	4%	8.9%	5.5%
<b>New Jersey</b>	5.3%	4.3%	11%	5.4%
<b>Connecticut</b>	4%	2.6%	11.5%	7.3%
<b>Massachusetts</b>	6.1%	3.2%	14.7%	8.1%
<b>Vermont</b>	0.6%	-2.1%	7.3%	6.6%

**Table 3. Aggregate Border County Comparison (2015-2017 % change)**

	Employment	Establishments	Total wages	Average salary
<b>New York Border Counties</b>	<b>5.8%</b>	<b>12.5%</b>	<b>17.5%</b>	<b>11.5%</b>
<b>All Surrounding Border Counties</b>	4.2%	3.3%	11.1%	5.3%
<b>Pennsylvania</b>	0.2%	4.4%	3.8%	2.7%
<b>New Jersey</b>	5.5%	4.4%	11.9%	6.7%
<b>Connecticut</b>	4.5%	2.9%	12%	7%
<b>Massachusetts</b>	-2.6%	-5.2%	9.1%	12%
<b>Vermont</b>	0.6%	-2.2%	6.6%	4.5%

Narrowing our focus to an even more direct comparison of the New York—Pennsylvania border region (Table 4), it can be seen once again that New York counties fared better in employment and average salary growth, and had nearly the exact same rate of establishment growth as Pennsylvania border counties.

This can be further illustrated in a county-by-county comparison for neighboring counties, paired with one another, matched as best as possible based on which counties share the greatest length of the border with others. In some cases, two counties share most of the border with one county on the other side, and they are listed in threes.

As we can see, New York border counties consistently outperformed Pennsylvania border counties in terms of worker earnings. For example, compare Steuben county NY, where average salaries went up 12.2%, compared to Tioga county PA, where they declined by 5.4%.

In terms of employment, in some cases New York counties did better than their neighbors, in others, they fared comparably or not as well. On the aggregate, New York counties performed better. In absolute numbers, however, the differences are mostly small and in the tens or even sometimes in single digits. For example, Susquehanna, PA saw an increase in restaurant employment of 17 jobs, which translated to a 5.2% increase due to the size of the Susquehanna County labor market. This also explains a comparably sized percentage boost in total wages, though when averaged out by worker, salaries in Susquehanna grew by 1%, compared to the 13.3% salary boost earned by workers in neighboring Broome, NY, which saw 10 fewer restaurant jobs in that same period.

Small changes in employment may be negligible and consistent with frictional unemployment, the standard flux of people leaving jobs and looking for new ones. It may be better said that employment stayed mostly the same on both sides of the border. The real effect can be seen in terms of restaurant employee average salary, which went up +8.4% to +13.3% in New York border counties, compared to -2.5% to +8.4% in Pennsylvania border counties.

Table 4. County-by-county comparison  
New York-Pennsylvania (2015-2017 % change)

	Employment	Establishments	Total wages	Average salary
NY Border	1.2%	1.9%	12.8%	11.4%
PA Border	0.3%	2%	5.8%	4%
Chautauqua, NY	-7%	0.7%	4%	11.7%
Erie, PA	-1.5%	5.1%	2.6%	4.2%
Warren, PA	-1%	11.5%	3.4%	4.3%
Cattaraugus, NY	8.5%	1.3%	19.9%	10.5%
McKean, PA	9.2%	8%	14.2%	4.7%
Allegany, NY	-6%	-7.7%	6.1%	12.4%
Potter, PA	3.3%	-7.7%	2.7%	-0.6%
Steuben, NY	0.4%	-5%	12.6%	12.2%
Tioga, PA	-5.4%	-2.9	-4.5%	1%
Chemung, NY	-5.2%	-1.5%	5.6%	11.4%
Tioga NY	-8.1%	-5.1%	2.8%	11.9%
Bradford, PA	-9.4%	-7%	-1.6%	8.4%
Broome, NY	-0.3%	-6.7%	12.9%	13.3%
Susquehanna, PA	5.2%	17.9%	4.4%	1%
Delaware, NY	-3%	-4%	8.3%	11.8%
Wayne, PA	12.9%	7.4%	2.1%	7%
Orange, NY	8.6%	14%	17.7%	8.4%
Sullivan, NY	5.4%	0%	15.4%	9.6%
Pike, PA	11.1%	2.8%	8.4%	-2.5%

## CONCLUSION

In sum, there is ample evidence that the TMW increase had a major and positive impact on New York restaurant workers' earnings, including compared to restaurant workers just over the border in surrounding states. At the same time, any difference in employment and establishment growth was statistically insignificant: New York border counties saw slightly higher job growth, and nearly exactly the same establishment growth as Pennsylvania border counties. Thus there is no statistical evidence of a negative impact on restaurant employment or establishments accompanying the significant positive impact on workers' wages and tips from New York's last tipped minimum wage raise.

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## Notes

- <sup>i</sup> Paarlberg and Reyes, "Paying tipped workers better wouldn't lead to fewer restaurant jobs." *Washington Post* January 16, 2018. <https://www.washingtonpost.com/news/posteverything/wp/2018/01/16/paying-tipped-workers-better-wouldnt-lead-to-fewer-restaurant-jobs/>
- <sup>ii</sup> See, Card and Krueger, "Minimum Wages and Employment: A Case Study of the Fast-Food Industry in New Jersey and Pennsylvania," *American Economic Review*, 1994; and Jardim, Long, Plotnick, et al, "Minimum Wage Increases, Wages, and Low-Wage Employment: Evidence from Seattle," *National Bureau of Economic Research*, 2017.
- <sup>iii</sup> All wage data include tips, as per BLS "[County Employment and Wages Technical Note](#)": "Included in the quarterly wage data are non-wage cash payments such as bonuses, the cash value of meals and lodging when supplied, tips and other gratuities, and, in some states, employer contributions to certain deferred compensation plans such as 401(k) plans and stock options." <sup>[1]</sup> <sup>[2]</sup> <sup>[3]</sup> <sup>[4]</sup> <sup>[5]</sup> <sup>[6]</sup> <sup>[7]</sup> <sup>[8]</sup> <sup>[9]</sup> <sup>[10]</sup> <sup>[11]</sup> <sup>[12]</sup> <sup>[13]</sup> <sup>[14]</sup> <sup>[15]</sup> <sup>[16]</sup> <sup>[17]</sup> <sup>[18]</sup> <sup>[19]</sup> <sup>[20]</sup> <sup>[21]</sup> <sup>[22]</sup> <sup>[23]</sup> <sup>[24]</sup> <sup>[25]</sup> <sup>[26]</sup> <sup>[27]</sup> <sup>[28]</sup> <sup>[29]</sup> <sup>[30]</sup> <sup>[31]</sup> <sup>[32]</sup> <sup>[33]</sup> <sup>[34]</sup> <sup>[35]</sup> <sup>[36]</sup> <sup>[37]</sup> <sup>[38]</sup> <sup>[39]</sup> <sup>[40]</sup> <sup>[41]</sup> <sup>[42]</sup> <sup>[43]</sup> <sup>[44]</sup> <sup>[45]</sup> <sup>[46]</sup> <sup>[47]</sup> <sup>[48]</sup> <sup>[49]</sup> <sup>[50]</sup> <sup>[51]</sup> <sup>[52]</sup> <sup>[53]</sup> <sup>[54]</sup> <sup>[55]</sup> <sup>[56]</sup> <sup>[57]</sup> <sup>[58]</sup> <sup>[59]</sup> <sup>[60]</sup> <sup>[61]</sup> <sup>[62]</sup> <sup>[63]</sup> <sup>[64]</sup> <sup>[65]</sup> <sup>[66]</sup> <sup>[67]</sup> <sup>[68]</sup> <sup>[69]</sup> <sup>[70]</sup> <sup>[71]</sup> <sup>[72]</sup> <sup>[73]</sup> <sup>[74]</sup> <sup>[75]</sup> <sup>[76]</sup> <sup>[77]</sup> <sup>[78]</sup> <sup>[79]</sup> <sup>[80]</sup> <sup>[81]</sup> <sup>[82]</sup> <sup>[83]</sup> <sup>[84]</sup> <sup>[85]</sup> <sup>[86]</sup> <sup>[87]</sup> <sup>[88]</sup> <sup>[89]</sup> <sup>[90]</sup> <sup>[91]</sup> <sup>[92]</sup> <sup>[93]</sup> <sup>[94]</sup> <sup>[95]</sup> <sup>[96]</sup> <sup>[97]</sup> <sup>[98]</sup> <sup>[99]</sup> <sup>[100]</sup>
- <sup>iv</sup> For an example, see Meer and West, "Effects of the Minimum Wage on Employment Dynamics," *Journal of Human Resources*, 2015.