

Evidence of Employment Losses After Seattle’s Minimum Wage Hike? A Cautionary Note About the use of Data

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Please note that since the writing of this research note, Professor Perry has noted that he incorrectly used two data sources for the chart in question, and has updated the chart accordingly.

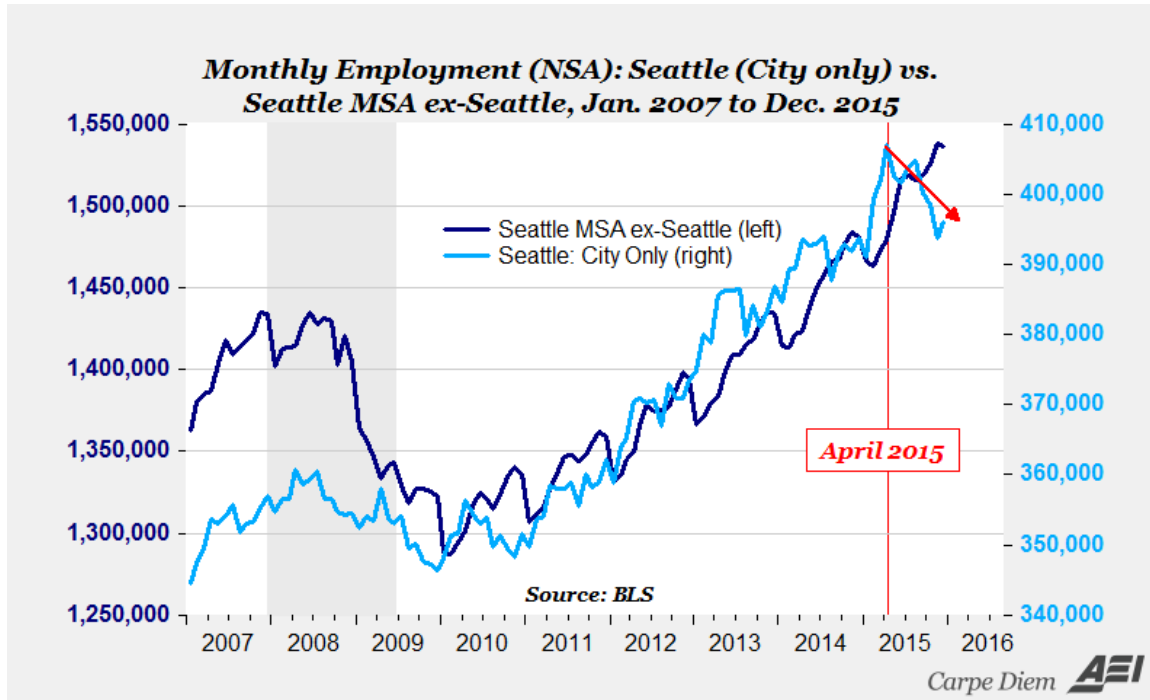
In recent years, advocates and policymakers in states and municipalities have been steadily pushing to increase state and local minimum wage rates. A long contested issue, many scholars have contributed to the debate about whether minimum wage increases reduce employment, and the latest round of policy changes has sparked more debate. One of the most vocal contributors of late is American Enterprise Institute (AEI) scholar and University of Michigan Flint Professor Mark Perry. He has written dozens of pieces about the minimum wage in Seattle and other locales that have increased their minimum wages.

Here, we examine his February 18th article, “New evidence suggests that Seattle’s ‘radical experiment’ might be a model for the rest of the nation not to follow.” We believe that this conclusion—even as it is cautiously stated—may depend in large part on a use of two different sources of data to compare *employment* in Seattle versus the *number of jobs* in the surrounding MSA.

One of Perry’s most popular posts of the subject includes a trend line (included in figure 1 below) showing monthly employment in the city of Seattle since 2007 compared to employment in the surrounding metropolitan statistical area (not the city itself). While the city of Seattle experienced a minimum wage increase, the rest of the MSA did not. Thus, the goal of this exercise is to see whether there was a divergent trend between the part of the MSA that experienced a minimum wage increase and the part that did not.

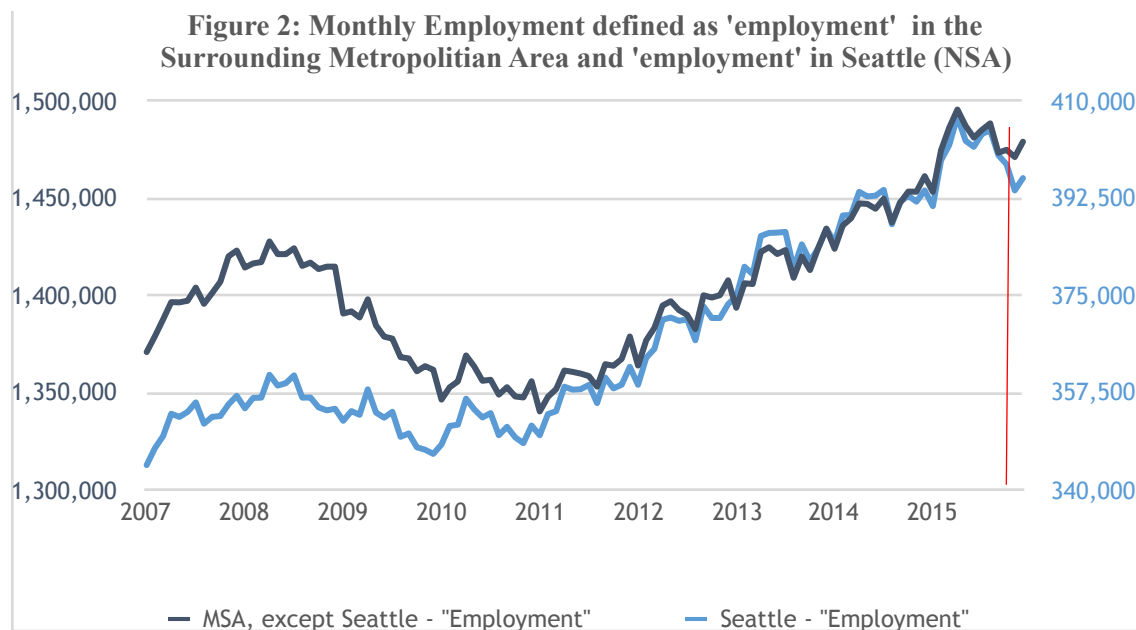
Shown below, Perry’s figure shows that there was a stark decline in employment in Seattle (light blue line) compared to the rest of the MSA (navy blue) following the most recent minimum wage increase experienced by the city. Employment in Seattle sharply declines; employment in the surrounding area spikes upward. This graph led [Perry to conclude](#) that “the difference in labor costs [between Seattle and the MSA] could have been a contributing factor.”

Figure 1: Perry's Analysis of Monthly Employment in Seattle and the Surrounding Metropolitan Area



Recently, we attempted to replicate and update Perry's analysis using the Bureau of Labor Statistics data that he referenced as his data source. Yet we found that our estimates were consistently different from his in ways that change the interpretation. In our chart (figure 2), we employ exactly the same data and methods that we understand Perry to have used: we used the employment figures from the LAUS ([data here](#)) for Seattle and the Seattle metropolitan area and then subtracted the Seattle employment from the metropolitan area to generate a separate estimate for the metropolitan area excluding Seattle. Before continuing, it should be noted that [LAUS data is known to be unreliable](#) as it makes inferences based on small sample sizes, and thus all of these charts must be considered with caution.

In figure two, we do not see the divergent trends between employment estimates in the two areas after the Seattle minimum wage increase. Rather, both trend lines follow similar trajectories of employment loss following the minimum wage increase, although Seattle does appear to have somewhat higher rates of job loss. Still, the difference between the two is certainly not so drastic, and they follow the same overall trajectory, rather than starkly different paths indicated in figure 1.



What could explain the differences between figure 1 and figure 2? As we delved deeper in the numbers, we found that our estimates for Seattle city seemed to be identical to those shown in Perry’s chart. The difference between the figured stemmed from the surrounding MSA. For the surrounding MSA, Perry’s estimates point toward an employment level **over** 1.5 million, while ours suggested an estimate **under** 1.5 million (1.48).

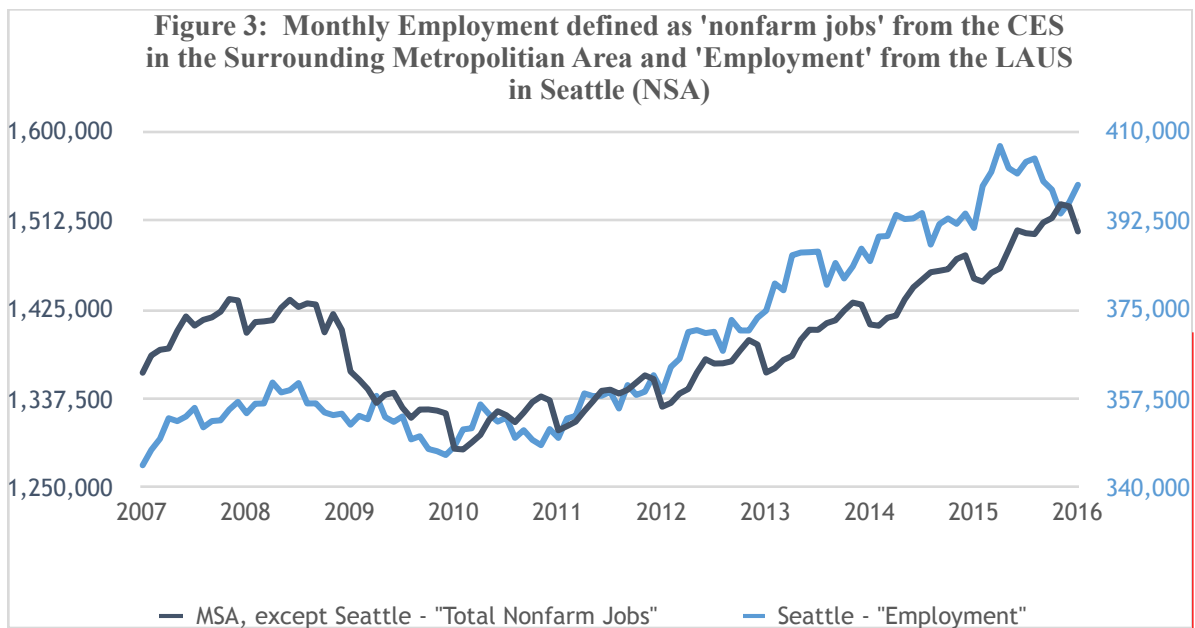
In an attempt to figure out the source of data for the surrounding MSA, we looked at a [different source of Bureau of Labor Statistics data](#), the Current Employment Statistics program (CES). CES is a separate survey that is used in part to compile LAUS statistics; however, LAUS is mainly dependent upon the Current Population Survey not the CES, a survey of businesses.

Looking at total non-farm wage and salary employment from CES for the Seattle MSA for December 2015, we found that employment estimates for the MSA using LAUS were 1,874,800, while the estimate for total nonfarm jobs using CES during the same time period was 1,922,200. When we subtract the level of employment in Seattle in December 2015 using LAUS data (396,036) from the CES total number of non-farm jobs, we find that the total nonfarm-job-employment estimate is 1.52 million.

Thus, our assessment is that Perry used two different sources of data in the same chart to compare the surrounding metropolitan region and Seattle. His ultimate calculation of the surrounding MSA excluding Seattle’s employment involved subtracting the number of total nonfarm jobs in the MSA (using CES) by Seattle employment (using LAUS).

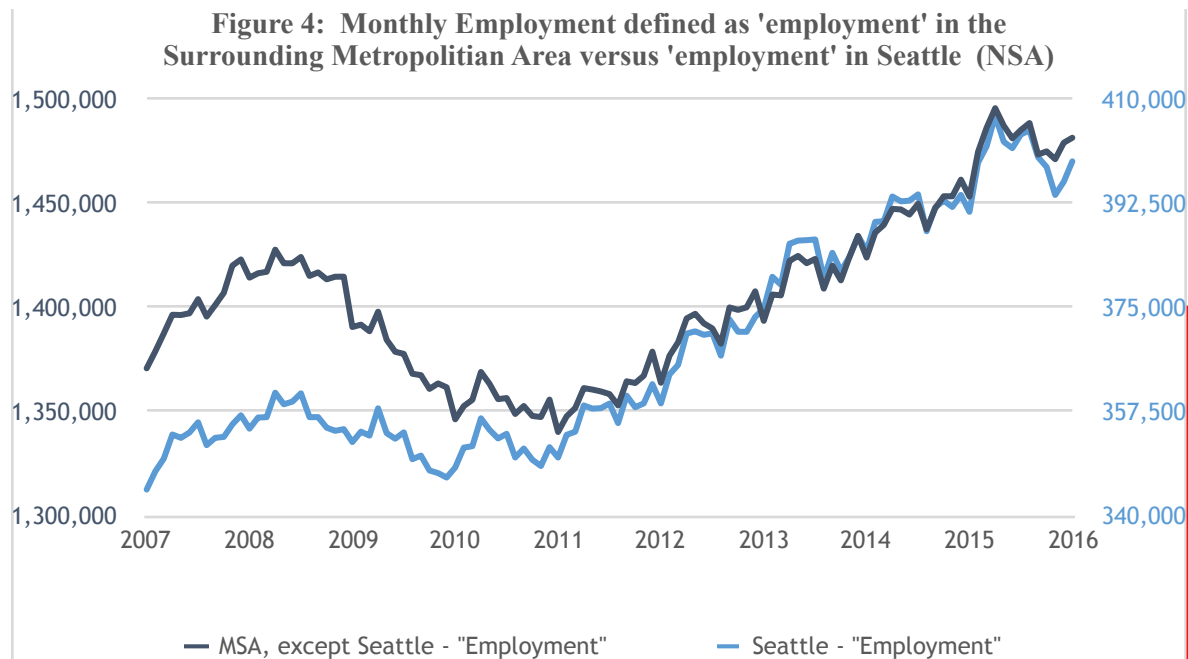
To test this, we subtracted the total nonfarm jobs in the Seattle MSA by the employment estimates in Seattle from January 2007 to January 2015. We believe these estimates to be identical to Perry’s original analysis (figure 3). His conclusion seems to be primarily a result of mixing sources of data. Trend lines using data consistently to compare Seattle to the surrounding MSA would not, in our opinion, lead to the same conclusion.

Even though we disagree with his original process, we updated his original chart with estimates from the month of January. The new month shows a reversing of the earlier trend. Seattle employment goes up, MSA jobs (minus Seattle employment) goes down.



Finally, in Figure 4, we added an additional month of data to our employment estimates which use consistent data in Seattle and the surrounding MSA (from figure 2). In these estimates, we again find that Seattle and the metropolitan region are following similar paths. Interestingly, the hike of the minimum wage in January corresponded to a faster percent growth in Seattle than in the MSA in the most recent month.¹

¹ $1,478,788/1,481,168=1.00161$
 $396,036/399,460=1.00865$



Should the employment increase we saw in Seattle relative to the MSA in January lead us to declare that the Seattle minimum wage increase might be a model for the rest of the country to follow? No. The analysis is using a small, unreliable sample, and also fails to account for year-to-year trends, potential temporal differences in hiring practices between the MSA and city, and other factors that could be separately influencing job and employment growth in both areas. These updates to Perry's original analysis simply suggest that any analysis should use data consistently. It appears that the conclusion drawn from figure 1 was in large part a matter of using two different forms of data. More broadly we suggest caution in regard to declaring anything about the minimum wage hikes until more and better data become available and more sophisticated analyses are conducted.