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Minimum Wages and Pricing for Restaurants in the United States

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HOSP6900: Capstone

Professor Warren

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Abstract

Staff wages are a significant expense to any restaurant operator. Any legislation to increase the cost of those wages, including federal, state, or municipal minimum wages threatens to significantly increase that expense. Operators fear they will need to drastically increase prices to offset those increases. This study looks at previous studies to determine if prices increase when minimum wages increase and how severe are those increases.

This study concludes that prices do increase, but those increases are moderate.

Keywords: Minimum Wages, Restaurants, Food Service, Prices,

Introduction

The federal minimum wage has not increased since 2009 at \$7.25 (United States Department of Labor, n.d). Since then states and municipalities have begun raising minimum wages. There are currently 29 states with minimum wages above the federal floor, (United States Department of Labor, n.d.) and there are 42 cities with minimum wages above the same limit (Dube and Lindner, 2021).

Employers in low minimum wage areas make dire predictions about possible increases. For example, in one survey of 219 restaurant owners throughout America about hypothetical changes if minimum wages increased in their area, operators responded by saying they would raise prices significantly – 18%-60% depending on the scope of the minimum wage increase (Repetti and Roe, 2018). On the other hand, other studies show that prices may decline when minimum wages increase (Katz and Kreuger, 1992).

The purpose of this paper is to provide food service operators with examples of how other operators have handled pricing in the face of minimum wage increases so they can make plans about if they should increase their prices and how large the increase should be.

Literature Review

A History of Minimum Wage

Before we can look at the literature, we must understand the history of minimum wage increases. After the minimum wage was created in 1938, the wage increased routinely. Then in 1982 the wages froze. In 1990-1991 the wages were raised to \$4.25, in 1996-1997 wages went up to \$5.15, and in 2007-2009 went up to the currently level of \$7.25 (United States Department of Labor, n.d.). This limits scholarship to studying changes either during these three periods or looking at smaller state or municipal changes.

Alan Krueger is responsible for two commonly cited studies on minimum wage and pricing. The first studied fast-food restaurants in a single state that followed the federal minimum wage. The survey used phone books to call Burger King, Wendy's, and Kentucky Fried Chicken restaurants in Texas before and after the 1990 increase. They shockingly concluded that prices declined if restaurants faced large minimum wage increases, although price changes were small and not related to changes in wages (Katz and Krueger, 1992).

Next in 1994 Krueger cowrote an article with Card, using a natural experiment when New Jersey raised minimum wages but Pennsylvania did not. They studied fast food franchises with locations in both states. Again, they used a phone book to survey three fast food chains - Burger King, KFC, Wendy's and Roy Rogers - and again they called before and after the minimum wage changes. They found that prices did increase in New Jersey compared to Pennsylvania by 3.7%, but the degree of price increase within New Jersey did not correlate to the severity of the change to the individual store (Card and Krueger, 1994).

Dube, Naidu, and Reich refute Card and Krueger's work citing measurement errors. They similarly used a phone survey of restaurants with wage increases in San Francisco compared to the East

Bay community. They asked owners and managers for the price of a popular item before the increase, and then called back to ask about the price of the same item after the increase. They found prices increased 6.2% at fast food restaurants, and 1.8% at full-service restaurants, attributing this to the fact that fast food tends to employ more minimum wage staff while full service has fewer waged staff and can utilize tipped employees (Dube, Naidu, and Reich, 2007).

Aaronson, French and MacDonald (2008) used data from the Bureau of Labor Statistics from 1995-1996 and some computer modeling to study a wide range of food prices. Their conclusion is focused on describing labor market dynamics, so for this study we need to look at one of their tables.

Table 1
Means of Selected Variables

Outlet type	Limited Service		Full Service	
	No	Yes	No	Yes
Two-month period with minimum wage change				
A. Share of price changes, observation is an item				
Percent increases	11.5	22.6**	10.7	12.0**
Percent decreases	2.9	2.5	1.8	1.6
Item observations	25,815.0	3,853.0	44,632.0	7,045.0
B. Share of price changes, observation is the average of all items at a store				
Percent increases	24.1	38.3**	19.5	22.4
Percent decreases	8.0	6.7	5.1	4.8
Store observations	3,799.0	551.0	6,809.0	1,036.0
C. Size of price changes (in percent)				
Mean item price change increase	5.3	4.8**	4.8	4.9
Mean item price change decrease	8.4	8.2	7.5	9.3*

* (**) = Statistically different from months without a minimum wage increase at the 5(1) percent level.

Table 1: Reprinted from: Aaronson, D. (2008). The minimum wage, restaurant prices, and labor market structure. Journal of Human Resources 45. 694.

As we can see from Table 1, if a Limited Service restaurant had a minimum wage increase, they were significantly more likely to raise the price of a single item and of the average of all items, by about 5%. The price increase was greater than they would do to items in a non-increase period, but they made the increases to more items. Full Service restaurants were slightly more likely to raise the price of a single item, and of their menu as a whole, but again by about 5%.

In 2013, San Jose increased minimum wages substantially while the surrounding communities did not. A survey of published online menus found restaurants responded to the 25 percent minimum wage increase by increasing prices 1.45%. (Allegretto & Reich, 2016).

Basker and Khan built a dataset that combined federal and state increases combined with city-level average prices. They used a McDonald's quarter pounder burger, a 13" pizza from Pizza Hut or Pizza Inn, and a two-piece combo from Kentucky Fried Chicken or Church's Fried Chicken and analyzed the data over from 1993-2014. They found minimum wages did increase prices, but "a 33% increase in the federal minimum wage ... could increase prices of fast food and similarly unskilled-labor intensive goods by 3% in the 27 states for which the federal minimum wage is the effective minimum wage," (Basker & Khan, 2016, p. 140).

Methodology

The methodology for this study will be synthesizing research from other papers. I will survey studies of minimum wages and pricing for restaurants in the domestic US. This will establish the scope of possible changes. Changes of less than 5% will be considered minimal, and between 5% and 10% will be considered moderate.

Findings

Researcher	Date of Minimum Wage Change	Location	Result
Kreuger & Kratz	1990-1991 (Federal)	Texas	Price Decrease
Card & Kreuger	1992 (State)	New Jersey / Pennsylvania	Increase 3.7% between states, no correlation within state.
Dube, Naidu, and Reich	2004 (City)	San Francisco / East Bay	1.8%-6.2%
Aaronson, French and MacDonald	1996-1997 (Federal)	Nationwide	About 5%
Allegretto & Reich	2013 (City)	San Jose	About 1.45%
Basker & Khan	1993-2014 (Federal and State)	Nationwide	3% on 33% wage hike

Looking at the results, it is clear that Kreuger and Kratz price decrease is an outlier. Even more importantly, all the results are far less than the 18-60% predicted by Repetti and Roe (2018). This data is solidly repeated across types of increase (federal, state, and municipal), different methodologies (self reporting surveys and computerized analysis), and time frames from the 1990's through the 2010's.

Limitations

This study did not investigate other effects – employment (hours worked per week, workforce automation), menu development (changing selection to manage costs) staff benefits or any other number of changes. Just because prices changes are moderate does not mean that the sum of all changes will be moderate.

This study is also limited by era. Since the federal minimum wage has not increased in more than 20 years, studies tend to be written about changes in the 1990's. Many things have changed since then, and it is possible that the low-price changes in the 1990's does not mean there will be low price changes now.

Another limitation is geography. In the absence of wide scale federal change, states and individual cities have made changes. There are differences in the labor markets of major cities compared to rural areas, and it is reasonable that the implications on price could be different.

A final limitation is that only the restaurants that survived are surveyed. Many of the papers cited relied on before and after data, but restaurants that close cannot provide after data and would not be included.

Implications

This paper shows an important synthesis in two schools of thought. One school that says that minimum wage does not increase pricing, and another school that says minimum wage does increase

pricing. Prices almost always went up, most the studies center on prices increases in the 1-5% range. We should no longer debate about huge swings in restaurant pricing. From an operator perspective, the price increases we have all seen are approximately the same. An operator should not consider raising the price of a \$7 cheeseburger to the \$14. The operator should be considering raising the price of that cheeseburger to \$7.29, \$7.39 or \$7.49.

Restaurant owners should not look to pass all the costs of higher wages on through pricing. A restaurant raising its prices by 25% to 50% would be an outlier in terms of price increases, and possibly become a competitive disadvantage. As owners evaluate their pricing, they should keep price changes to 5% or less and look for other ways to recoup costs.

Conclusion

Prices increase if minimum wage increases. Nearly every study agreed. Further, those price increases were moderate, hovering in the 1%-5% range.

Operators should use this information to plan their changes – price increases should be a part of plan when they are facing a minimum wage increase. However, business plans not rely on large minimum wage increases, increases above 5% are unlikely to be matched by competitors. Basker and Khan (2016) provides a good baseline – a 33% increase in minimum wage means a 3% increase in price.

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