

ISSUE BRIEF

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Higher Fast-Food Wages: Higher Fast-Food Prices

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Union activists want to raise the minimum wage in the fast-food industry to \$15 an hour. However, fast-food restaurants operate on very small profit margins; they could only afford such wages by raising prices—significantly. Higher prices would, in turn, drive customers away, forcing even larger price increases to cover costs. Ultimately, the average fast-food restaurant would have to raise prices by nearly two-fifths. This would cause sales to drop by more than one-third, and profits to fall by more than three-quarters. Absent the widespread adoption of labor-saving technology, the union-led “Fight for 15” would make fast food much more expensive for Americans.

Fight for 15

The Service Employees International Union (SEIU) has launched an expensive PR campaign calling for wages of at least \$15 an hour in the fast-food industry. This Fight for 15 is part of a larger SEIU pressure campaign to unionize fast-food restaurants.¹ Hundreds of union activists have staged “walkouts” and protests across the country demanding the higher pay rate. These protests have attracted considerable media attention. However, if the SEIU achieved its stated goal, it would hurt the budgets of millions of moderate-income Americans.

This paper, in its entirety, can be found at <http://report.heritage.org/ib4272>

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No, Fast-Food Joints Cannot Absorb Cost Increases

Artificially inflating wages would substantially increase fast-food restaurants’ total costs—labor makes up a considerable portion of their budget. Chart 1 shows the financial statements of the average fast-food restaurant in 2013. Labor costs (26 percent) and food and material costs (31 percent) make up the majority of the typical restaurant budget.

The Bureau of Labor Statistics reports the average cook in a fast-food restaurant earned \$9.04 an hour in 2013.² The SEIU’s push for \$15 an hour would consequently raise fast-food wages by at least 66 percent. Paying \$15 an hour would raise fast-food restaurants’ total costs by approximately 15 percent.³

Fast-food restaurants could not pay this additional amount out of their profits. The typical restaurant has a profit margin of just 3 percent before taxes.⁴ That works out to approximately \$27,000 a year⁵—less than the annual cost of hiring one full-time employee at \$15 an hour.⁶ In order to raise wages, fast-food restaurants *must* raise prices.

Fast-Food Customers Are Price Sensitive

Most Americans eat fast food because they want a quick and inexpensive meal. If fast-food restaurants raised their prices, many of their customers would either eat at home or go to more expensive restaurants.

Academic studies consistently confirm the price sensitivity of fast-food customers. Table 1 shows the results of all studies of U.S. fast-food demand published since 1990.⁷ The figures in the table show the estimated drop in sales when prices rise by 1 percent.

CHART 1

Average Fast-Food Restaurant Has Small Profit Margin

The largest expenses in a fast-food operation are wages and purchases, with the average profit margin around 3 percent.

AVERAGES BASED ON FINANCIAL STATEMENTS IN 2013

Item	Cost	Percentage of Sales
Wages and payroll taxes	\$217,484	26%
Purchases (food, paper, etc.)	\$254,589	31%
Depreciation	\$29,565	4%
Marketing	\$24,638	3%
Rent and utilities	\$73,913	9%
Other	\$193,965	24%
Before-tax profit	\$27,101	3%
Total	\$821,256	100%

Note: Employer share of payroll taxes has been added to the “Wages” category and subtracted from the “Other” category.

Source: Heritage Foundation calculations based on data from IBISWorld, “Industry Report 72221a Fast Food Restaurants in the U.S.,” May 2013.

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Most studies find that a 1 percent increase in prices causes sales to fall by almost 1 percent. Larger price increases cause sales to fall by proportionally larger amounts. For example, Abigail Okrent’s and Aylin Kumcu’s estimate implies that a 10 percent increase in fast-food prices would cause fast-food sales to fall by 9 percent.⁸

And More Price Increases

The loss of sales would force fast-food establishments to raise prices even more to cover fixed

costs like rent, insurance, and marketing. These price increases would, in turn, further reduce sales, necessitating further price increases.

Many economists analyzing the fast-food industry overlook this dynamic.⁹ They assume that fast-food restaurants would only have to raise prices enough to cover the cost of wage increases—ignoring the sales and revenue that fast-food restaurants lose because of these price increases. Consumers’ price sensitivity means that fast-food prices must rise by more than the initial increase in labor costs.

1. Arun Gupta, “Fight For 15 Confidential,” *In These Times*, November 11, 2013, http://inthesetimes.com/article/15826/fight_for_15 (accessed September 3, 2014).
2. Bureau of Labor Statistics, “Occupational Employment Statistics: Occupational Employment and Wages, May 2013: 35-2011 Cooks, Fast Food,” April 1, 2014, <http://www.bls.gov/oes/current/oes352011.htm> (accessed September 3, 2014).
3. Heritage Foundation calculations based on data from IBISWorld, “Industry Report 72221a: Fast Food Restaurants in the US,” May 2013. These calculations assume that 81 percent of total labor costs shown in Chart 1 are paid to hourly workers, with the rest paid to salaried managers unaffected by any proposed changes. These calculations also assume a small “ripple effect” from the pay increase, such that the average hourly wage would rise from \$9.04 an hour to \$15.50 an hour.
4. *Ibid.* The employer share of payroll taxes has been added to the “Wages” category and subtracted from the “Other” category.
5. *Ibid.*, p. 31. In 2013, there were 232,611 fast-food establishments that collectively made \$191 billion, which works out to \$821,000 in revenues per establishment, with average profit margins of 3.3 percent.
6. \$15/hour multiplied by 40 hours/week by 50 weeks/year works out to \$30,000 a year. Employers would have to add the 7.6 percent employer-share payroll tax, another \$2,300.
7. These were studies on the elasticity of demand for fast food specifically, not the larger category of “Food Away from Home,” which includes all restaurants. Researchers have conducted far fewer studies on the demand for fast food than they have on the demand for all food away from home.
8. Abigail Okrent and Aylin Kumcu, “What’s Cooking? Demand for Convenience Foods in the United States,” paper for presentation at the Agricultural and Applied Economics Association’s 2014 annual meeting, Minneapolis, July 27-29, 2014, <http://ageconsearch.umn.edu/handle/170541> (accessed September 3, 2014). These figures are for industry-wide price increases. If an individual fast-food restaurant unilaterally hiked its prices, it would probably lose much more business to less expensive competitors.
9. See, for example Jeannette Wicks-Lim and Robert Pollin, “The Costs to Fast-Food Restaurants of a Minimum Wage Increase to \$10.50 per Hour,” Political Economy Research Institute *Research Brief*, September 2013.

TABLE 1

Responsiveness of Fast-Food Demand to Price Changes

Paper	Fast-Food Price Elasticity of Demand
Richards and Mancino (2014)	-0.743
Jekanowski et al. (2001)—1992	-1.884
Jekanowski et al. (2001)—1982	-1.022
Brown (1990)	-0.997
Okrent and Kumcu (2014)	-0.9
Okrent and Alston (2012)	-0.13
Average elasticity	-0.946
Median elasticity	-0.9485

Note: The elasticities show by how much sales in the fast-food industry would fall if restaurants in the industry increased their prices by 1 percentage point. For example, Richards and Mancino find that a 1 percent increase in prices would reduce sales by 0.74 percent, and a 10 percent increase in prices would reduce sales by 7.4 percent.

Sources: Abigail Okrent and Aylin Kumcu, “What’s Cooking? Demand for Convenience Foods in the United States,” paper presented at the Agricultural and Applied Economics Association’s 2014 AAEA Annual Meeting, Minneapolis, July 27–29, 2014; Mark D. Jekanowski, James K. Binkley, and James S. Eales, “Convenience, Accessibility, and the Demand for Fast Food,” *Journal of Agricultural and Resource Economics*, Vol. 26, No. 1, (2001); Douglas M. Brown, “The Restaurant and Fast Food Race: Who’s Winning?” *Southern Economic Journal*, Vol. 56, No. 4, (1990), pp. 984–995; Timothy Richards and Lisa Mancino, “Demand for Food-Away-From-Home: A Multiple-Discrete-Continuous Extreme Value Model,” *European Review of Agricultural Economics*, Vol. 41, No. 1, (2014), pp. 111–133; and Abigail Okrent and Julian Alston, “The Demand for Disaggregated Food-Away-from-Home and Food-at-Home Products in the United States,” *Economic Research Report*, No. ERR-139, August 2012, U.S. Department of Agriculture, Economic Research Service.

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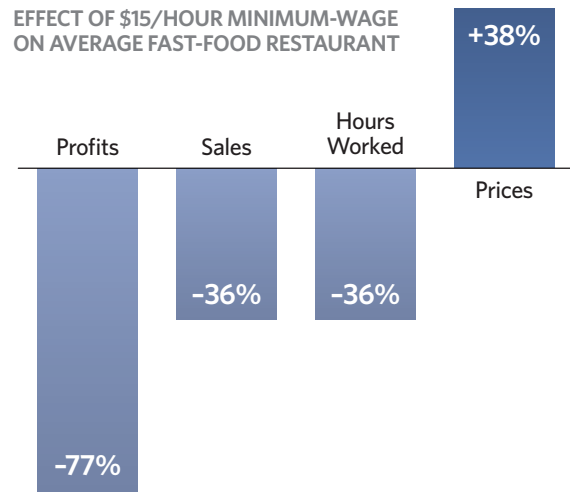
Total Economic Effects

The Heritage Foundation constructed a simulation model using the data on the average fast-food restaurant’s income and expenses. (See Chart 1.) This model accounts for the sales that fast-food res-

CHART 2

Minimum-Wage Hike Would Hurt Fast-Food Restaurants

EFFECT OF \$15/HOUR MINIMUM-WAGE ON AVERAGE FAST-FOOD RESTAURANT



Source: Heritage Foundation calculations. See appendix for details.

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taurants lose when they raise prices. (See the appendix for details of this model.) Chart 2 shows the effects of a \$15-an-hour minimum wage on the fast-food industry.

The higher labor costs would initially force fast-food restaurants to raise their prices by 15 percent, which would drive down sales by 14 percent. This would force restaurants to raise prices again, pushing sales down further. In equilibrium the average fast-food restaurant would have to raise prices 38 percent.¹⁰ Prices would rise roughly twice as much as the initial increase in labor costs.¹¹ Total sales and hours worked would both fall by 36 percent. Fast-food restaurant owners would also have to accept a 77 percent reduction in profits in order to stay in business—leaving them with an average profit of just \$6,100 a year per store. Otherwise they would have

10. These price increases would have to be for the average check, not each individual item. Consumers would probably respond to the price increases by substituting cheaper items, for instance, McDonald’s dollar menu. Such substitution means that prices of less expensive items would have to rise by more than the average amount in order for the price of the average check to rise by 38 percent.

11. This explains the observation by Emek Basker and Muhammad Khan that fast-food prices respond to minimum-wage increases as though labor costs accounted for 50 percent of total expenditures. Economic survey data consistently show that fast-food restaurants spend roughly one-quarter of their budget on labor costs. However, prices rise by more than this in response to minimum-wage increases to recoup revenues from reduced sales. Emek Basker and Muhammad Khan, “Does the Minimum Wage Bite into Fast-Food Prices?” University of Missouri *Working Paper* No. 1317, September 2013.

to raise prices to an extent that would drive away their customer base.

These changes would hurt consumers. Americans would face higher fast-food prices, putting a dent into the budgets of everyone who frequently eats fast food—primarily moderate-income consumers, not the wealthy, who do not regularly eat fast food.

Labor Substitution

Such an increase in prices and decrease in profits would devastate fast-food restaurants. Many owners would find that taking on the risk of operating a restaurant—and potentially losing money—is not worth profit margins of less than 1 percent. Many fast-food restaurants would respond by restructuring dramatically in order to use less labor.

Fast-food restaurants could reduce labor costs by (a) substituting entry-level workers for more skilled and more productive workers and (b) replacing human workers with machines. Fast-food jobs involve many routine tasks that are particularly susceptible to automation. For example, McDonald's recently announced plans to adopt iPhone ordering and paying—making the jobs of many cashiers redundant.¹² Inventors in California have created an automatic hamburger-cooking machine that cooks 360 hamburgers in an hour without human intervention.¹³ Artificially increasing fast-food wages would significantly hasten the adoption of such technology—flat out eliminating many positions in the fast-food industry.

Fewer Entry-Level Jobs

These reduced job opportunities would badly hurt less-skilled workers. Fast-food restaurants generally employ younger and less-experienced workers. In the limited time they work in the fast-food industry, they gain basic employment skills—such as how to work reliably, follow instructions from a supervisor, and work constructively with co-workers. Once they gain these skills, they quickly move on to higher-level jobs. McDonald's estimates that its franchisees see average annual turnover of 150 percent—the average employee stays for just 8 months.¹⁴ When employees leave, they quickly find higher-paying jobs. Two-thirds of minimum-wage workers earn a raise within a year—with a median raise of 24 percent.¹⁵ Eliminating entry-level jobs makes it harder for workers to advance into higher-paying positions.

Conclusion

Raising the minimum wage in the fast-food industry to \$15 an hour would hurt consumers and workers. Without major operational changes, fast-food restaurants would have to raise prices by 38 percent while seeing their profits fall by 77 percent. This would cause many restaurants to close and many others to make extensive use of labor-saving technology—eliminating many of the entry-level jobs that inexperienced workers need to get ahead. Congress should not facilitate the SEIU's attempt to inflate fast-food wages.

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12. Maria Vultaggio, "McDonald's to Launch NFC-Enabled Mobile Payment and Ordering App: Report," *International Business Times*, September 2, 2014, <http://www.ibtimes.com/mcdonalds-launch-nfc-enabled-mobile-payment-ordering-app-report-1676634> (accessed September 3, 2014).
 13. Momentum Machines, "The Next Generation of Fast Food," <http://www.momentummachines.com> (accessed September 3, 2014).
 14. Michael Harris, "An Employee Retention Strategy Designed to Increase Tenure and Profitability in the Fast Food Industry," dissertation, University of Phoenix, December 2010, <http://pqdtopen.proquest.com/pqdtopen/doc/860122562.html?FMT=ABS> (accessed September 3, 2014).
 15. Jonathan Meer and Jeremy West, "Effects of the Minimum Wage on Employment Dynamics," National Bureau of Economic Research *Working Paper No. 19262*, revised December 2013, p. 8.
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Appendix

The Heritage Foundation estimated the full effects of raising the minimum wage in the fast-food industry using an iterative model. Heritage used data on the average labor and food costs of limited-service (fast-food) restaurants from IBISWorld, as shown in Chart 1. The data were modified to include the employer share of payroll taxes in the “wages” category instead of “other.” Heritage also estimated that 81 percent of payroll costs are paid to line employees, while 19 percent are paid to salaried managers. Heritage used this data to estimate the labor costs of hourly employees as a share of total revenues at the average fast-food restaurant.

Data from the Bureau of Labor Statistics show that the typical fast food-cook in a restaurant earns \$9.04 an hour.¹⁶ Heritage estimated that if the SEIU raised minimum wages in the fast-food industry to \$15 an hour, average wages would rise to \$15.50 an hour—allowing limited ripple effects to maintain wage differentials for more experienced workers. The SEIU proposal would thus raise hourly fast food labor costs by 71 percent.

The Heritage Foundation surveyed all studies that estimated the price elasticity of demand for fast food in the U.S. published over the last 25 years. Heritage found five studies with six elasticities¹⁷ (Jekanowski et al. calculated estimates for two time periods). The Heritage Foundation used the aver-

age of these six elasticities to estimate how fast-food demand responds to price changes. As Table 1 shows, the average elasticity was almost identical to the median elasticity.

Heritage used an iterative model in which fast-food restaurants first raise their prices to cover the labor cost increase, and then experience falling sales in response to the price increase. The reduced sales cut the food and labor expenses of the restaurant but not its fixed costs. Heritage assumed that food and labor costs fall proportionally to the change in sales. In the model, restaurants then raise their prices by an amount necessary to restore a portion of their previous profits. The model iteratively estimates the sales decreases and subsequent price increases more than 200 times until equilibrium sales and price levels are reached.

The initial estimate with unchanged profits concluded that the average restaurant would go bankrupt, so the Heritage Foundation re-ran the model with successively lower profits. Heritage assumed that restaurants would maximize their profits, subject to the condition they remain in business. This estimate showed that restaurants would have to accept a 77 percent reduction in profits for the labor cost and price increases not to put them out of business.

16. Bureau of Labor Statistics, “Occupational Employment Statistics: Occupational Employment and Wages, May 2013—35-2011 Cooks, Fast Food.”

17. Mark D. Jekanowski, James K. Binkley and James S. Eales, “Convenience, Accessibility, and the Demand for Fast Food,” *Journal of Agricultural and Resource Economics*, Vol. 26, No. 1 (2001).