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The Impact of Oakland's Proposed City Minimum Wage Law: A Prospective Study

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Executive Summary

The Lift Up Oakland Coalition, an alliance of community, labor, small business and faith organizations, has placed an initiative on the Oakland November 2014 ballot that would establish a minimum wage of \$12.25 for businesses in the city starting March 1, 2015. This study examines the effects of a \$12.25 minimum wage on Oakland workers and businesses.

Drawing on a variety of government data sources, we estimate that more than a quarter of the Oakland workforce would benefit from the proposed policy, with the average worker earning an additional \$2,700 a year. Our analysis of the existing economic research literature suggests that businesses will adjust to modest increases in operating costs through reduced employee turnover costs, improved work performance, and a small, one-time increase in restaurant prices.

Specifically, we find:

- **About 25 to 30 percent of Oakland workers or between 40,000 to 48,000 Oakland workers would receive a pay raise.**
 - Between 31,000 to 34,000 would be directly affected by a minimum wage increase.
 - Between 9,000 to 14,000 would be indirectly affected by a ripple effect.
- **Workers' hourly wages and annual incomes would rise, resulting in increased annual earnings of \$120 million per year.**
 - Hourly wages of affected workers would rise by an average of \$1.69/hour.
 - Average annual earnings would increase by about \$2,700 per year.
- **Adults and workers of color would see significant benefits of a pay increase.**
 - 96.5 percent of affected workers are in their twenties or older, and over half of the workers receiving raises are in their thirties or older.
 - Workers of color (Black, Hispanic, and Asian) make up about 62.1 percent of the total workforce in Oakland, but they represent about 78.7 percent of workers affected by a minimum wage increase to \$12.25.
 - About 43.0 percent of the affected workers are Hispanic/Latino.
- **Increasing the minimum wage would have a modest impact on business operating costs and consumer prices.**
 - Research evidence indicates that the costs of a higher minimum wage are absorbed through reduced worker turnover, improved worker performance and small one-time increases in restaurant prices.
 - Operating costs would increase by 0.3 percent for retail businesses and 2.8 percent for restaurants.
 - Restaurant prices would increase by 2.5 percent. A \$10 meal would increase by 25 cents, to a total of \$10.25. For retail and the local economy as a whole, price increases would be negligible.

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- **Previous studies found that minimum wage increases have little negative impact on employment.**
 - Three rigorous studies of the employment impacts of existing local minimum wage laws all find no significant impact on employment.
 - A national study compares employment in all the counties that straddle state borders with different minimum wages, for the period 1990 to 2012. This study finds no statistically significant effects of minimum wage increases on either employment or hours in restaurants and other low-wage industries, controlling for a range of regional and local differences that previous research did not include.
 - **The proposed 36 percent minimum wage increase in Oakland lies within the range of previous local minimum wage laws.**
 - The ten previous local minimum wage laws in the U.S. have mandated an average increase of 43.0 percent, with a range of 13.3 percent to 84.5 percent.
 - The proposed policy would increase the minimum wage to 54 percent of the Oakland median wage of \$22.64 an hour. This ratio is within the historical range of the ratio of the federal minimum wage to the median wage.

Introduction

Residents of Oakland, California will soon be voting whether or not to adopt a city-wide minimum wage policy. The proposal under consideration would establish a minimum wage of \$12.25 for businesses operating in the city as of March 1, 2015, indexed to inflation in subsequent years. In this report, we first estimate the number of workers that would be affected and describe their demographic and job characteristics. We then estimate the resulting increase in wages and analyze their likely impacts on business costs, prices and employment. We also compare the magnitude of the proposed increase to those in the ten other extant local minimum wage laws.

Background

Real wages for the majority of American workers have stagnated over the last decade, even as incomes at the top rose sharply (Mishel and Shierholz 2013). According to the California Budget Project, workers in the bottom 20 percent of the income distribution in California now earn 12 percent less in inflation-adjusted wages than in 1979 (California Budget Project 2014). Even though states like California have set minimum wage rates above the federal level, they still remain below their historic value in inflation-adjusted terms and do not reflect the higher cost of living in many urban areas.

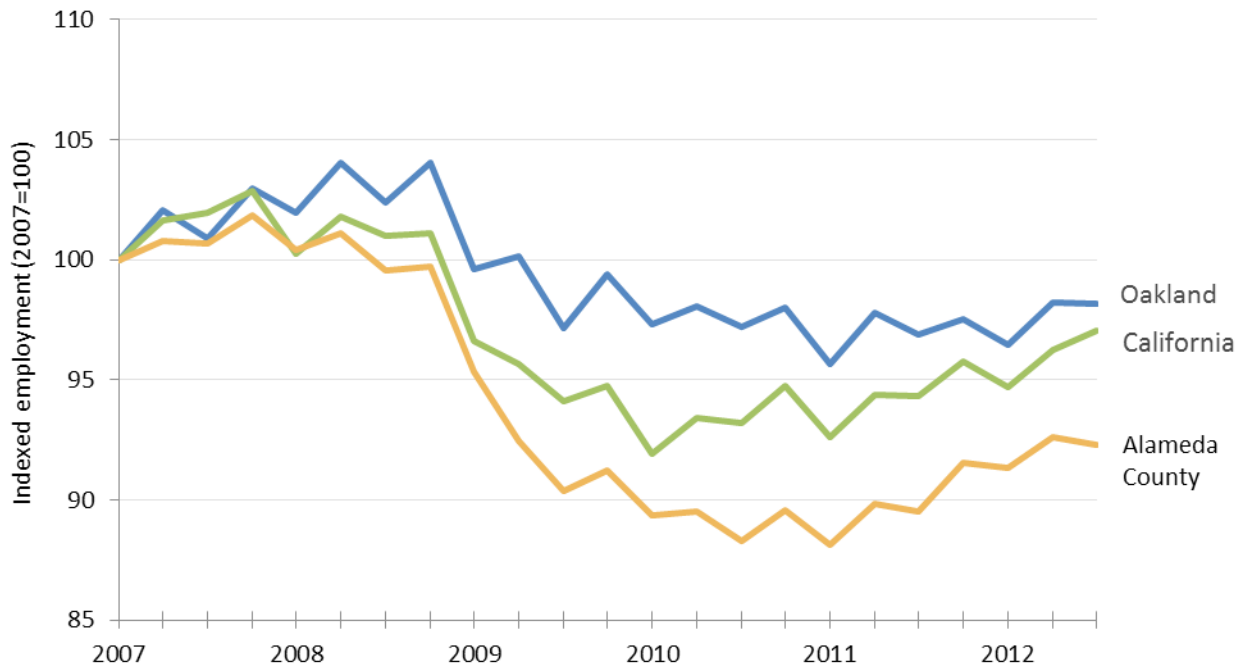
In response, cities and counties have begun to set their own minimum wages at levels that reflect local economic conditions and living costs. Ten cities and counties have approved local minimum wage laws. Most recently Seattle, Washington approved a minimum wage of \$15 an hour, to be phased in over several years. In the Bay Area, in 2003 San Francisco became the first city in the nation to pass a citywide minimum wage law. In 2012, San Jose voters approved a minimum wage initiative setting the minimum wage to \$10 per hour as of January 1, 2014 with subsequent annual cost of living increases.

Proposals are also currently under consideration to increase the minimum wage to \$12.53 in Berkeley, \$13 in Richmond and \$15 in San Francisco. California’s minimum wage is set to increase to \$9 on July 1, 2014 and to \$10 on January 1, 2016.

Oakland, the largest city in Alameda County, accounts for about one-fourth of the county’s population. Its principal immediate neighbors are Emeryville and Berkeley to the north, the East Bay Regional Park District to the east, San Leandro to the south and Alameda to the west. About 45 percent of employed Oakland residents work in Oakland; conversely, about 60 percent of workers with jobs located in Oakland commute in from nearby cities.¹ The proposed minimum wage law would cover everyone who works in Oakland (excepting state and federal government employees and the self-employed).

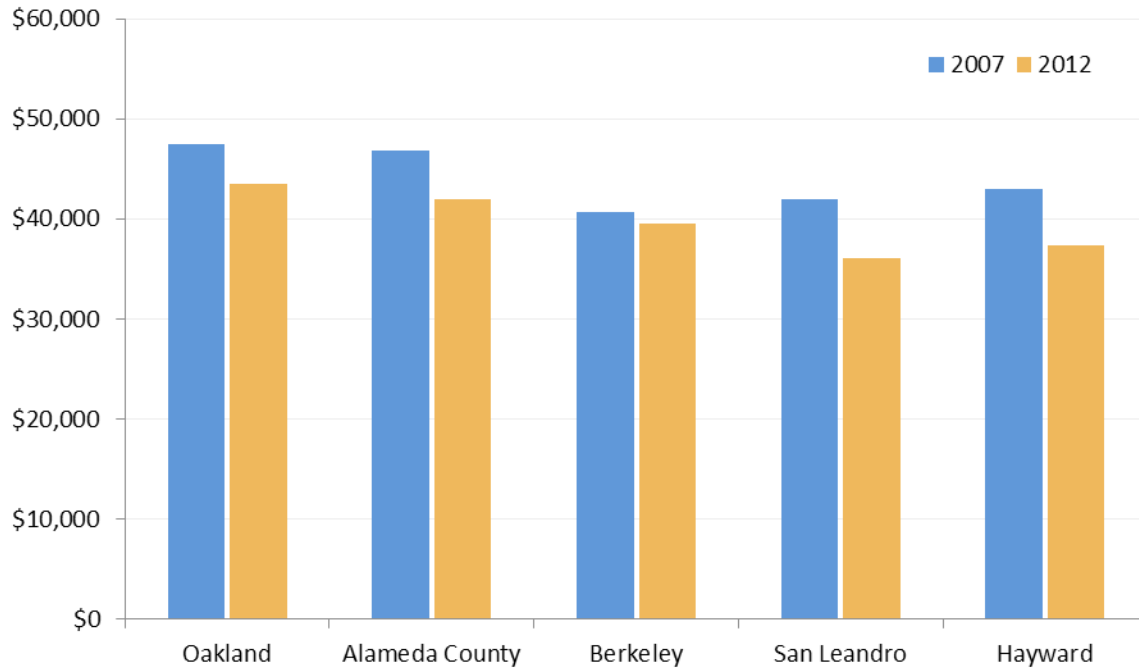
Oakland’s economic situation has improved in recent years. During the Great Recession that began in December 2007, employment did not fall as rapidly in Oakland as in Alameda County or in California. As shown in Figure 1, the number of jobs in Oakland is very close to pre-recession levels, a better record than that of Alameda County and California as a whole. Moreover, while the 2014 Oakland unemployment rate remains higher (8.9 percent) than in Alameda County as a whole (5.7 percent), both rates have been falling, and at about the same pace.²

Figure 1. Quarterly Employment Growth (Indexed to 2007)



Source: U.S. Census Bureau, Quarterly Workforce Indicators Data (not seasonally adjusted)

Figure 2. Median Annual Earnings by Place of Work (2012 Dollars)



Source: U.S. Census Bureau, American Community Survey, 2005-2012.

Notes: Estimates are three-year averages.

Despite the recovery, inflation-adjusted median annual earnings for those who work in Oakland are still below pre-recession levels. These declines in median earnings likely reflect a faster contraction of middle wage jobs during the recession and a faster growth of low-wage jobs during the recovery. However, workers in Alameda County as a whole experienced a somewhat larger decline in real earnings than did Oakland Workers (Figure 2). Median inflation adjusted annual earnings fell 8.4 percent for workers in Oakland and 10.4 percent in Alameda County between 2007 and 2012. Nonetheless, median annual earnings for those who work in Oakland are actually higher than in nearby Berkeley, Hayward and San Leandro and slightly higher than in Alameda County as a whole.³

Oakland's economy thus exhibits the same uneven recovery that characterizes the East Bay and the state as a whole. Income inequality in the region has been growing, leaving low-wage workers further behind. According to a recent Brookings Institution report, inequality in Oakland ranks seventh among U.S. cities, just behind New York (Berube 2014). Moreover, according to the Census Bureau, income inequality in Oakland-- as measured by the city's Gini coefficient-- has risen by 2.65 percent since 2008, a more rapid increase than in neighboring San Francisco, and more rapid than in the U.S.⁴ At the same time, median rents in Oakland increased by 20 percent between 2005 and 2012⁵, twice the rate of increase in median household incomes.⁶

Impacts on Workers

Estimated Number of Affected Workers

To estimate the number of workers affected by the proposed minimum wage increase, we obtain the wage distribution of workers in Alameda County using the 2012 American Community Survey (ACS), scaled to approximate employment counts for Oakland.⁷ This step is necessary because the ACS does not allow us to identify individuals who work in Oakland; the smallest geographic area for measuring place of work is the county. We therefore assume that the proportion and characteristics of low-wage workers in Alameda County are similar to low-wage workers in Oakland. Our analysis suggests that the Alameda County workforce serves as a good proxy for the Oakland workforce on many dimensions. For example, 2012 median annual earnings were \$43,480 for workers employed in Oakland and \$41,922 for workers employed in Alameda County.⁸ Where we expect workforce characteristics to differ between the county and the city, we use additional methods to provide an estimate. We do not include self-employed workers or federal or state government employees in our sample, since these groups of workers are not covered by the proposed Oakland law.

After obtaining the wage distribution in Oakland just before the proposed minimum wage law would go into effect, we then estimate the number of workers that would be affected by the increase and the additional wages they would receive if the policy were implemented. To construct these estimates, we also adjust for projected wage growth at the bottom of the wage distribution that would occur without the policy, the interim increase in the state minimum wage to \$9 on July 1, 2014, the subsequent state minimum wage increase to \$10 on January 1, 2016, and projected employment growth.

We produce a low and a high estimate. Both estimates include a directly affected group (workers who make less than the proposed minimum wage) and an indirectly affected group (workers who make slightly more than the proposed minimum wage, but who are also likely to receive a small raise via what is known as the “ripple effect”). The two estimates differ in their assumptions about the size of the ripple effect and the number of very low-wage earners (workers making less than the minimum wage). More information on our methodology is available in an online technical appendix (see Welch-Love-man, Perry and Bernhardt 2014). In this report we present the midpoint of the two estimates, unless otherwise noted.

Table 1 shows the estimated number and percent of workers affected by Oakland’s proposed minimum wage increase. We estimate that between 25 and 30 percent of Oakland workers will receive pay raises, which translates into 40,000 to 48,000 Oakland workers. The majority of the affected workers will be directly affected workers – that is, those earning less than \$12.25 when the law would go into effect.

Table 1. Number of Workers Affected by Oakland’s Proposed Minimum Wage Increase

	Low Estimate		High Estimate	
	Workers	Percent of Workforce	Workers	Percent of Workforce
All Affected Workers	40,000	24.8	48,000	29.5
Directly Affected Workers	31,000	19.1	34,000	20.7
Indirectly Affected Workers	9,000	5.7	14,000	8.7

Source: Authors’ analysis of ACS, OES, and QCEW data. See Welsh-Loveman, Perry and Bernhardt 2014.

Estimated Size of Wage Increases

In addition to the number of workers affected, we also estimate the additional earnings that affected workers would receive as a result of the proposed minimum wage law. Table 2 presents four measures: the average increase in hourly wages, the average increase in annual earnings, the average percentage increase in annual earnings and the total projected increase in earnings. We estimate that hourly wages of affected workers will rise by about \$1.69, that their annual earnings will increase by about \$2,700, and that their earnings will increase by about 18.7 percent.⁹ In total, workers will earn about \$120 million more in the first year of implementation as a result of the higher wage rate.

Table 2. Pay Increases for Workers Affected by Oakland’s Proposed Minimum Wage Law

Total Increase In Earnings	\$120,100,000
Average Hourly Wage Increase	\$1.69
Average Annual Earnings Increase	\$2,700
Average Percent Annual Earnings Increase	18.7

Source: Authors’ analysis of ACS, OES, and QCEW data. See Welsh-Loveman, Perry and Bernhardt 2014.
Notes: Results refer to workers affected by Oakland’s proposed minimum wage increase.

Demographics of Affected Workers

Table 3 profiles key demographic characteristics of the workers affected (both directly and indirectly through the ripple effect) by the proposed Oakland minimum wage law. In this table we use our low estimate to identify affected workers.

The first column of Table 3 displays the distribution of affected workers among demographic groups. For example, 48.2 percent of affected workers are women and 51.8 are men. Column 2 shows the same breakdown for all workers in Oakland. The last column shows the percentage of workers in each demographic group that will be affected by the proposed law. For example, 25.7 percent of female workers and 24.0 percent of male workers will receive a wage increase under the proposed law.

Table 3. Demographic Characteristics of Workers Affected by Oakland’s Proposed Minimum Wage Increase
(all figures are percentages unless otherwise noted)

	% of All Affected Workers	% of All Workers	% of Group Affected
Gender			
Male	51.8	53.5	24.0
Female	48.2	46.5	25.7
Median Age			
	32	41	
Age			
19 and Younger	3.5	1.2	70.7
20-29	39.8	19.9	49.7
30-39	19.8	24.9	19.8
40-54	25.8	37.5	17.1
55 and Older	11.1	16.5	16.6
Education			
Less than High School	22.9	10.0	56.9
High School or G.E.D.	25.2	18.5	33.7
Some College	27.2	22.5	30.0
Associate’s Degree	6.0	7.6	19.4
Bachelor’s Degree or Higher	18.8	41.3	11.3
Country of Birth			
U.S. Born	50.0	61.0	20.3
Foreign Born	50.0	39.0	31.8
Family Structure			
Married	38.5	54.0	17.7
Have Children	35.8	45.0	19.7

Source: Authors’ analysis of ACS, OES, and QCEW data.

Notes: Affected workers are determined using our low estimate.

Contrary to the common perception that minimum wage workers are mainly teens, we estimate that 96.5 percent of affected workers are in their twenties or older, and that over half of the workers receiving raises are in their thirties or older. Over a third of affected workers have children and over a third are married. Compared to the overall workforce, affected workers are more likely to be immigrants and are less likely to hold an Associate’s or Bachelor’s degree.

For the estimates in Table 3, we used the demographic characteristics of Alameda County workers to approximate the characteristics of Oakland workers; for the measures listed in the table, we have confirmed that this inference is valid. However, our analysis suggests that the Oakland workforce differs from the Alameda County workforce in terms of race and ethnicity, and family income-related measures. Since the available data do not allow us to directly identify workers employed in Oakland, we show in Table 4 the average of two different estimates.¹⁰

As shown in Table 4, workers of color will disproportionately benefit from the proposed law compared to white workers. The families of affected workers are disproportionately low-income (with more than half falling below 200 percent of the federal poverty level), and more likely to be receiving food stamps. Substantial majorities of working poor families will receive an increase in income from the proposed law.

Table 4. Estimated Race and Household Income Characteristics of Workers Affected by Oakland’s Proposed Minimum Wage Increase

(all figures are percentages unless otherwise noted)

	% of All Workers Getting a Raise	% of All Workers	% of Group Getting a Raise
Race/Ethnicity			
White (Non-Hispanic)	18.2	34.1	15.3
Black (Non-Hispanic)	13.6	13.8	29.2
Hispanic	43.0	25.3	49.9
Asian (Non-Hispanic)	22.1	23.0	28.6
Other	3.2	3.8	24.2
Household Income Relative to Poverty Level (FPL)			
Less than 100% of FPL	18.7	6.8	81.5
100% to 150% of FPL	21.6	9.0	71.8
150% to 200% of FPL	15.2	7.4	60.6
More than 200% of FPL	44.4	76.7	16.9
Average Worker Share of Household Income	41.3	55.4	
Food Stamp Assistance			
Family Receives Food Stamp Assistance	19.2	8.7	64.9

Source: Authors’ analysis of ACS, OES, and QCEW data.

Notes: See text for explanation of the two estimation methods. Affected workers are determined using our low estimate.

Job Characteristics of Affected Workers

In Table 5, we profile the job characteristics of workers affected by the proposed minimum wage law. Not surprisingly, the median annual earnings of affected workers is quite low, less than half of the median for the workforce as a whole. Affected workers are also more likely to work part-time and part-year than the general workforce, and are less likely to have health insurance provided by their employer. The industry breakdown is also instructive. Fully half of all affected workers are employed in three industries: retail trade (17.1 percent); restaurants (17.9 percent); and education, health and social services industries (15.7 percent). (The latter set of industries includes teachers’ assistants, medical assistants, childcare workers and private-pay home health aides). Several smaller industries also have a disproportionate number of affected workers, such as administrative and waste management services (largely temporary workers).

Table 5. Job Characteristics of Workers Affected by Oakland’s Proposed Minimum Wage Increase
(all figures are percentages unless otherwise noted)

	% of All Workers Getting a Raise	% of All Workers	% of Group Getting a Raise
Median Individual Annual Earnings (2013 Dollars)	\$16,200	\$44,600	
Full-Time / Part-Time Worker			
Full-Time (35 or More Hours per Week)	63.4	80.1	19.6
Part-Time (Fewer than 35 Hours per Week)	36.6	19.9	45.7
Full-Year / Part-Year Worker			
Full-Year (50-52 Weeks per Year)	77.7	84.9	22.7
Part-Year (Fewer than 50 Weeks per Year)	22.3	15.1	36.5
Sector			
Private Sector Employer	87.8	79.6	27.4
Non-Profit Employer	8.1	11.5	17.4
Local Government	4.2	9.0	11.5
Health Insurance Provided by Employer			
Yes	46.0	76.4	14.9
No	54.0	23.6	56.8
Industry			
Agriculture, Forestry, Fishing, Hunting, and Mining	0.2	0.3	
Construction	4.9	5.6	21.4
Manufacturing	10.5	14.0	18.6
Wholesale Trade	3.8	4.2	22.2
Retail Trade	17.1	11.3	37.4
Transportation, Warehousing, and Utilities	3.2	4.7	17.3
Information and Communications	1.5	2.9	13.0
Finance, Insurance, Real Estate, and Rental and Leasing	2.8	5.0	14.1
Professional, Scientific, and Management	2.9	9.1	7.9
Administrative and Waste Management Services	7.7	4.4	42.9
Educational, Health and Social Services	15.7	21.7	18.0
Arts, Entertainment, Recreation	2.2	1.9	29.2
Accommodations	1.7	1.0	
Food Services	17.9	6.9	63.9
Other Services (except Public Administration)	7.2	4.5	40.2
Public Administration	0.7	2.4	6.7

Source: Authors’ analysis of ACS, OES, and QCEW data.

Notes: Affected workers are determined using our low estimate. Blank values for “% of Group Getting a Raise” indicate less than 50 observations for that category.

Impacts on Businesses

Impact on Costs for Business Owners

We next estimate the impact of Oakland's proposed minimum wage law on the operating costs of businesses. Our strategy is to compare the estimated increase in the overall wage bill resulting from the proposed law to the existing wage bill paid by employers, drawing on our estimates in Table 1 and Table 2 above.

Table 6 shows our analysis of the estimated increase in business operating costs in two traditionally low-wage industries, retail and restaurants. Businesses' total wage bill will increase 2.4 percent for the retail industry, and 8.9 percent in the restaurant industry. However, operating costs will rise by a much smaller amount, since wage costs only make up a portion of the total operating costs that businesses face. Labor costs (excluding health benefits) account for 11 percent of retail operating costs and 31 percent of restaurant operating costs.¹¹ We therefore estimate that total operating costs will increase by 0.3 percent for retail and 2.8 percent for restaurants, as a result of the proposed minimum wage law.

Table 6. Impact of Oakland's Proposed Minimum Wage Increase On Business Operating Costs

Retail Industries

% Change in Payroll Costs	2.4
Labor Costs as % of Operating Costs*	11
% Change in Operating Costs	0.3

Restaurant Industries

% Change in Payroll Costs	8.9
Labor Costs as % of Operating Costs*	31
% Change in Operating Costs	2.8

Source: Authors' analysis of ACS, OES, QCEW, U.S. Census Monthly and Annual Retail Trade and BEA data.

*Labor costs exclude health insurance. Operating costs include costs of merchandise purchased for re-sale.

Given these modest estimated increases in operating costs, we turn next to a discussion of how businesses might adjust. We discuss, in turn, the effects of minimum wages on employment and hours, on worker productivity and turnover, and on consumer prices.

Impact on Employment and Hours

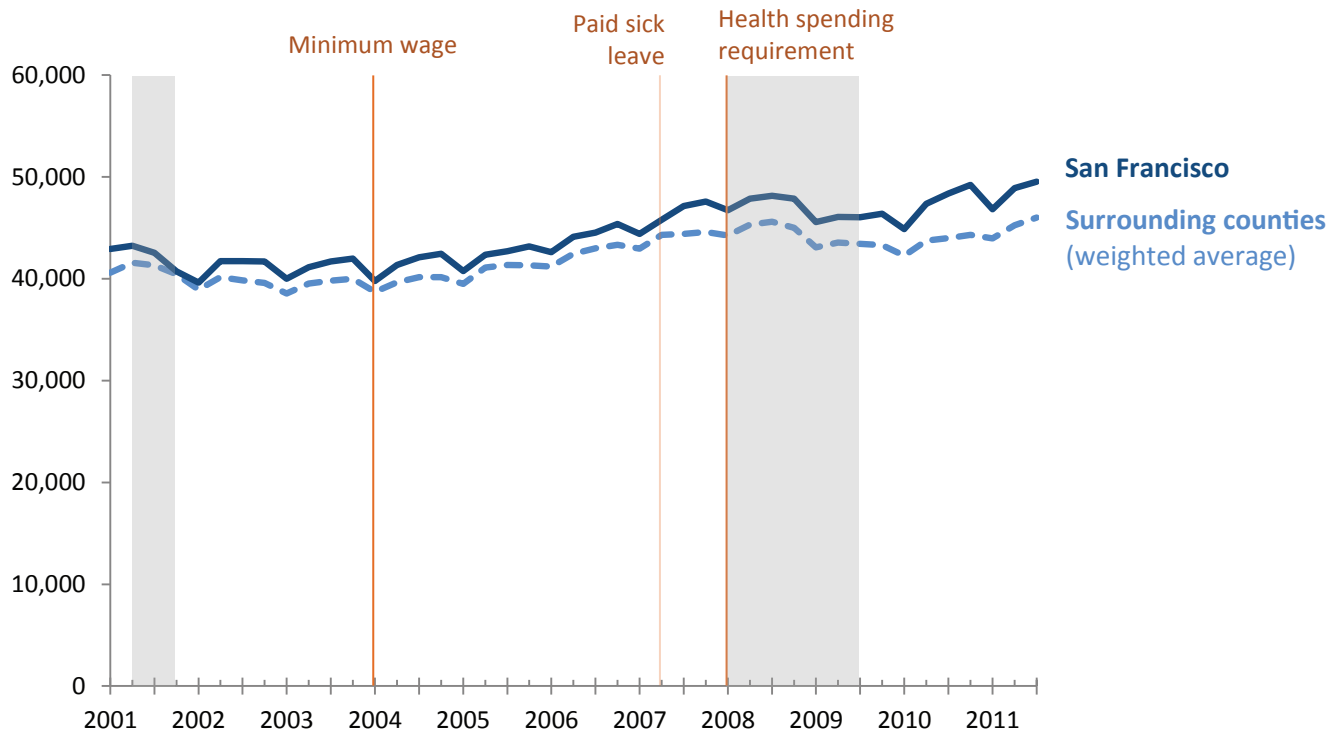
In a recent report prepared for the City of Seattle, Reich, Jacobs and Bernhardt (2014) provide an extensive review and synthesis of economic research on the employment and hours impacts of minimum wage increases. Here, we draw on that paper and provide a brief summary of what we consider to be the most compelling studies.

Research evidence from local minimum wage laws

There are three rigorous studies of the employment impacts of existing local minimum wage laws. Dube, Naidu and Reich (2007) studied the impact of San Francisco’s minimum wage law after it increased from \$6.75 to \$8.50 an hour in 2004. They surveyed a sample of restaurants before and after the wage increase. The sample included restaurants from San Francisco as well as neighboring East Bay cities that were not covered by the policy.

The authors found no statistically significant negative effects on either employment or the proportion of full-time jobs as a result of the San Francisco law. This finding holds for both full-service and fast-food restaurants (one might expect more sensitivity to a higher minimum wage in the latter). Figure 3 shows the results from their follow-up study (Reich, Jacobs, and Dietz 2014). Restaurant employment in San Francisco rose slightly faster than in surrounding counties after the minimum wage increase, and again after San Francisco implemented two additional policies (paid sick leave and a health spending requirement).

Figure 3. Bay Area Restaurant Employment



Source: Reich, Jacobs and Dietz (2014)

Notes: Shaded areas indicate recessions. Surrounding counties include San Mateo, Santa Clara, and Alameda Counties.

Potter (2006) studied the impact of Santa Fe’s minimum wage law after it increased from \$5.15 to \$8.50 in 2004, a substantial increase of 65 percent. Potter compares changes in employment at Santa Fe businesses before and after the ordinance went into effect, and to changes in employment in nearby Albuquerque over the same time period. (Albuquerque did not have a city minimum wage law at that time.) Potter found no statistically significant negative impact of Santa Fe’s minimum wage increase on the city’s employment. This finding also held for accommodation and food services, the industries with the highest proportion of minimum wage workers.

Finally, Schmitt and Rosnick (2011) studied the impact of the above two laws, comparing employment trends in these cities before and after their minimum wage increases to control groups of surrounding suburbs and nearby metropolitan areas. The authors focused on fast-food restaurants, food services, retail trade, and other low-wage industries, and found no discernible negative effects on employment, even three years after the respective ordinances were implemented.¹²

Evidence from state and federal minimum wage laws

The results from studies of local minimum wage laws are corroborated by extensive research on state and federal minimum wage laws. Allegretto, Dube, Reich and Zipperer (2013) looked at every state and federal minimum wage increase in the U.S. between 1990 and 2012 and identified several hundred pairs of adjacent counties that were located on different sides of a state border with a minimum wage difference. This research design compares the employment trends of the most affected groups – teens and restaurants – across adjacent counties with different minimum wage levels. This study finds no statistically significant effects of minimum wage increases on either employment or hours in restaurants and other low-wage industries, controlling for a range of regional and local differences that previous research did not include.

Belman and Wolfson (2014) provide the most extensive recent summary of the minimum wage research literature. They conclude that minimum wage employment effects in the U. S. are “both vanishingly small and not statistically significant in even the most generous test” (p. 168). A separate review of minimum wage research by Schmitt (2013) similarly finds “the minimum wage has little or no discernible effect on the employment prospects of low-wage workers.”

In summary, the best research studies find that minimum wage mandates (in the range implemented to date) do not have a statistically significant negative effect on employment or hours. How, then, do firms adjust to the modest increase in operating costs estimated above?

Effects on Worker Productivity and Recruitment and Retention Costs

As discussed in detail by Reich, Jacobs and Bernhardt (2014), businesses can adjust to the increased costs of a minimum wage increase without reducing employment. First, when workers are paid more, their productivity can improve, as can their attitude about their job, how hard they work, and their ability to make it to work on time (Reich, Jacobs and Dietz 2014 and Hirsch, Kaufman and Zelenska 2011). Second, minimum wages can reduce the high levels of job churning that characterize low-wage labor markets. The National Restaurant Association estimates that annual employee turnover in restaurants approaches 75 percent in some restaurant classifications (National Restaurant Association 2010). Turnover levels are high as workers leave jobs that pay higher wages or because they are unable to stay in their jobs due to poverty-related problems such as difficulties with transportation, child care, or health. Dube, Lester and Reich (2013) found that a 10 percent increase in the minimum wage results in a 2.1 percent reduction in turnover for restaurant workers. Turnover can be quite costly to firms, even for low-wage workers. Boushey and Glynn (2012) find that the median cost of replacement for a job paying \$30,000 a year or less is 16.1 percent of an employee’s annual earnings. As a result, rather than eliminating jobs, raising the minimum wages can reduce turnover and increase job stability. The associated reduction in employers’ recruitment and retention costs offsets about 20 to 25 percent of the costs of minimum wage increases (Dube, Lester and Reich 2013).

Impact on Restaurant Prices

Firms also adjust to increased costs by passing on some of the increases to consumers through higher prices. Since the minimum wage applies to all employers, firms such as restaurants that serve the local market will be able to pass costs through to consumers without experiencing a competitive disadvantage. And since the demand for restaurant meals responds inelastically to price increases, restaurant profits do not fall.

Research by Aaronson, French and MacDonald (2008) has found that for every percentage point increase in the minimum wage, restaurant prices rise by 0.072 percent. An earlier study (Lee et al. 2000) showed that restaurant operating costs increase by about 0.1 percent for each percentage increase in the minimum wage (see also Benner and Jayaraman 2012). The two studies together thus suggest that 70 to 75 percent of cost increases are passed on as higher restaurant prices. Preliminary results from a study of San Jose's recent experience arrive at a similar estimate (Allegretto and Reich 2014). Applying this estimate to restaurants in Oakland implies an average price increase of 2.6 percent, which is very close to annual restaurant price increases in recent years.

Table 7. Impact of Oakland's Proposed Minimum Wage Increase On Restaurant Prices

	Low Estimate	High Estimate
Retail Industries	0.2%	0.3%
Restaurant Industries	2.0%	2.9%

Source: Authors' analysis of ACS, OES, QCEW, U.S. Census Monthly and Annual Retail Trade and BEA data.

In Table 7 we provide our own estimates of the impact on restaurant and retail prices. Our low estimate uses the lower estimated increase in operating costs from Table 6, and assumes that 75 percent of those costs are passed through to consumers. Our high estimate uses the higher estimate for increases in operating costs and assumes that 100 percent of the costs are passed through to consumers. For restaurants, we predict a one-time increase in prices of 2.0 to 2.9 percent. The midpoint of this range, 2.5 percent, is very similar to the prediction from the research literature above. The price of a \$10 menu item would thus increase very modestly, to \$10.25. For retail and the local economy as a whole, price increases would be negligible.

Comparison to Other Minimum Wage Increases

It is important to emphasize that the economic research summarized above is necessarily limited to studying the minimum wage laws that have been implemented to date. It is therefore useful to ask how the Oakland's proposed minimum wage increase compares to those that have been implemented in the past.

The proposed ordinance would increase Oakland's minimum wage by 36.1 percent at the time of proposed implementation (in March 1, 2015, the state minimum wage will be \$9 an hour, rising to \$10 on January 1, 2016). While high, the size of the proposed increase is well within the range of other local minimum wage laws. The ten previous local minimum wage laws in the U.S. have mandated an average

increase of 43.0 percent in their minimum wage, with a range of 13.3 to 84.5 percent (this calculation includes Seattle's new law). A number of these laws were phased in over time, with the first year's increase typically the largest. Across all existing laws, first-year increases ranged from 6.7 to 65.0 percent, with an average of 25.6 percent. Again, Oakland's proposed increase falls within the range of other cities' laws.

While the proposed wage standard for Oakland is higher than is currently in effect in other Bay Area cities, Richmond, Berkeley and San Francisco are all considering wage increases that would be close to, or in the case of San Francisco, higher than, the \$12.25 an hour under consideration in Oakland.

Another measure used by economists to determine the ability of the economy to absorb higher minimum wage levels is the ratio of the minimum wage to the median wage. The proposed wage of \$12.25 is 54 percent of the median wage in Oakland of \$22.64 an hour. This ratio is within the historical range of the federal minimum wage-median ratio, which reached 55 percent in 1968 (Dube 2013), and it is lower than the 59 percent ratio in the new Seattle law.

Conclusion

Drawing on a variety of government data sources, we estimate that 40,000 to 48,000 workers would benefit from Oakland's proposed minimum wage policy, with the average worker earning an additional \$2,700 a year. Our analysis of the existing economic research literature suggests that businesses will adjust to modest increases in operating costs through reduced employee turnover costs, improved work performance, and a small, one-time increase in restaurant prices.

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Endnotes

¹ Bay Area Census analysis of 2006-2010 American Community Survey Commute Flows. <http://www.bayareacensus.ca.gov/transportation.htm>

² Bureau of Labor Statistics Local Area Unemployment Statistics.

³ U.S. Census Bureau; American Community Survey, 2005-2012 American Community Survey 3-Year Estimates, Table B08521; <<http://factfinder2.census.gov>>; accessed 6 June 2014.

⁴ U.S. Census Bureau; American Community Survey, 2008 and 2012 American Community Survey 1-Year Estimates, Table B19083; <<http://factfinder2.census.gov>>; accessed 5 June 2014.

⁵ Based on annual data. U.S. Census Bureau; American Community Survey, 2005-2012 American Community Survey 1-Year Estimates, Table B25064; <<http://factfinder2.census.gov>>; accessed 3 June 2014.

⁶ Based on annual data. U.S. Census Bureau; American Community Survey, 2005-2012 American Community Survey 1-Year Estimates, Table B19013; <<http://factfinder2.census.gov>>; accessed 3 June 2014.

⁷ According to the Quarterly Census of Employment and Wages, Oakland accounted for 25 percent of Alameda County employment in the second quarter of 2013.

⁸ U.S. Census Bureau; American Community Survey, 2010-2012 American Community Survey 3-Year Estimates, Table B08521; <<http://factfinder2.census.gov>>; accessed 6 June 2014.

⁹ Although more workers will receive an increase in our high estimate, the average wage increases are smaller because the additional workers included in the high estimate will receive below-average increases. For more detail on our estimation methods, see Welsh-Loveman, Perry and Bernhardt (2014).

¹⁰ The first estimate simply uses the characteristics of Alameda County workers. The second estimate uses the characteristics of Alameda County workers who live in or near Oakland (including Emeryville, Piedmont, San Leandro, and the city of Alameda). Oakland accounts for 79 percent of the residents in this area. The second estimate should not be interpreted as a more accurate estimate, because only 40.5 percent of Oakland workers live in Oakland.

¹¹ To determine the labor share of operating costs in retail we use data from the U.S. Census Monthly and Annual Retail Trade (<http://www.census.gov/retail/index.html>), which provides data on retail sales, merchandise purchased by retailers for resale and detailed operating expenses. We add operating expenses and purchases together to determine total operating costs. We add the costs of fringe benefits (minus health insurance) to annual payroll to estimate total labor costs. Health benefits are excluded since, unlike payroll taxes and workers compensation insurance, the costs of the benefits will not change if wages are increased. Dividing labor costs by operating costs gives us the labor share. The Retail Trade data does not provide the cost of goods purchased for resale in the restaurant industry. Industry data on gross operating surplus is available in the Bureau of Economic Analysis Input-Output Account Data (http://www.bea.gov/industry/io_annual.htm). The data was accessed from the Use Table, 2012, before redefinitions, producer value. We subtract gross operating surplus from sales to get the total restaurant operating costs and proceed as done for retail.

¹² The restaurant industry-backed Employment Policies Institute has produced three studies of Santa Fe and San Francisco (Yelowitz 2005a; 2005b; 2012). In our assessment, these studies suffer from serious methodological problems that make the results unreliable. They also offer contradictory results; see Reich, Jacobs and Bernhardt (2014) for details.

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