

Economic and Equity Outcomes of a \$15/hr Minimum Wage in Seattle

April 2014



AUTHORS

Nicole Vallesterro Keenan, Senior Research and Policy Analyst, MSW
Howard Greenwich, Research and Policy Director, MPP

ABOUT SAGE

Puget Sound Sage works to promote good jobs, quality employment opportunities, a cleaner environment and affordable housing for low/moderate income families in the Seattle metropolitan area. Our mission is to ensure that all families benefit from economic growth, and that local and regional policy decisions meet the social and environmental needs of our communities. Sage provides timely, critical research on issues of the regional economy, jobs, housing and the environment. Find more information at our website, www.pugetsoundsage.org, and our blog, soundprogress.wordpress.com.

ACKNOWLEDGMENTS

We would like to thank Anneliese Vance-Sherman and Scott Bailey from the Employment Security Department for compiling estimates of jobs earning below \$15 an hour per 2 and 3 digit industry code in King County – without which our analysis would not be possible. We also thanks Michael Jensen and Jalil Jahir at the Puget Sound Regional Council for providing a breakdown of jobs in the City of Seattle. And finally, we would like to acknowledge the contributions of the many researchers contracted by the City of Seattle to analyze the potential impacts of a \$15 wage in the City of Seattle: Dr. Robert Poltnick, Dr. Mark Long and Dr. Marieka Klawitter, Dr. Michael Reich and Ken Jacobs.

Summary and Introduction

In this policy brief, we explore implications of a \$15 minimum wage for the City of Seattle. Specifically, we examine the potential outcome of a \$15 minimum wage on our local economy, assess outcomes by industry sector, and demonstrate that a \$15 minimum wage would create large scale benefits to women and communities of color. We conclude that the net benefits to low-wage workers, the local economy and to race and gender equity make a compelling case to adopt a minimum wage in Seattle.

Key Findings:

A \$15 minimum wage will have a wide and positive impact on our local economy.

- We estimate that 102,000 employees in Seattle make less than \$15 an hour.
- Workers covered by a minimum wage could see an average increase of \$3.05 an hour. This represents a 26% actual increase above their average wage of \$11.95.
- The additional earnings would result in a \$526 million stimulus to low-wage worker households in Seattle and the region.
- The \$526 million dollar wage increase represents a marginal change of only 2% in the total payroll of affected industries. Employers in certain industries, such as food and accommodations, would see a higher rate of increase (6%).
- Low-income households are likely to spend more of their paychecks, increasing demand for goods and service. Households with incomes between \$30,000 and \$39,999 spend all of their pre-tax income. In contrast – households with incomes over \$70,000 spend only 63% of their pre-tax income.

A minimum wage increase will greatly benefit women and people of color working in Seattle.

- Women and people of color living in Seattle earn between 44% and 71% of what white men earn in Seattle, respectively.
- The over-representation of women and people of color in low-wage industries explains much of the gender and race pay gap. For example, in the food service industry nearly 63% of workers earn below \$15 an hour. People of color comprise 45% of those low-wage workers, despite making up 30% of Seattle's total workforce.

Evidence from other cities with higher minimum wages indicates that a simple minimum wage increase makes good policy.

- Two independent studies of San Francisco and Santa Fe found no discernible effect on employment after implementation of their minimum wage laws.

- San Jose increased the minimum wage by \$2.00 in 2013. Just one year later, registered businesses in San Jose have increased by 3%. Registration of small retailers increased by 19%.
- Unemployment in San Jose decreased by one percent since the wage hike went into effect, and in the sector most influenced by the wage increase, restaurants and hospitality, more than 4,000 jobs were created.

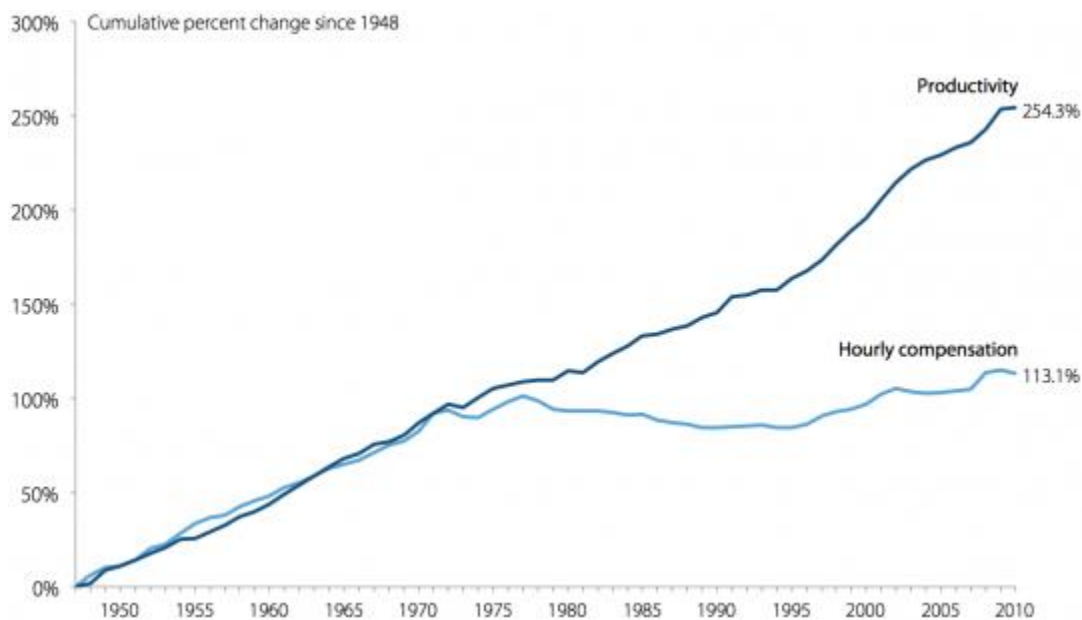
Why is Everyone Talking About \$15?

Structural Changes to the Economy Leave Many People Behind, Despite Prosperity

Over the last several decades, compounding factors have led to an income inequality crisis in the U.S.: median wages remain stagnant, the cost of living has outpaced earnings, and the majority of new jobs are low-wage, service-sector occupations.

More importantly, wages have not tracked with productivity. For decades, economists assumed that rising productivity corresponded with rising wages for everyone. Beginning in the 1970s, we saw this was no longer true – productivity gains that could have gone to workers were going somewhere else (see Figure 1). If the minimum wage tracked with productivity, as it had until around 1973, the current minimum wage would have been \$21.72 in 2012.¹ If hourly wages had tracked with the wages of the top 1%, it would be \$33 per hour.²

Figure 1 - Productivity and Wage Gap³



2012 Economic Policy Institute Analysis

This national trend will likely continue, with income inequality leading to more and more people facing economic hardship. Throughout the U.S., the fastest growing jobs are predominately low-wage jobs (see Table 1). Many of these fastest-growing, but also low-wage occupations, are disproportionately held by women and people of color, which contributes to our perpetual race and gender pay gaps (something we explore in more detail in the second half of this brief).

Table 1: Occupations with the Most Job Growth, United States⁴

Occupation	Job Growth, 2012-2022	Median annual wage, 2012	Estimated Hourly Wage
Personal care aides	580,000	\$19,910	\$9.57
Registered nurses	526,800	\$65,470	\$31.48
Retail salespersons	434,000	\$21,110	\$10.15
Home health aides	424,000	\$20,820	\$10.01
Combined food preparation and serving workers, including fast food	421,000	\$18,260	\$8.78
Nursing assistants	312,200	\$24,420	\$11.74
Secretaries and admin. assist., except legal, medical, and executive	307,800	\$32,410	\$15.58
Customer service representatives	298,700	\$30,580	\$14.70
Janitors and cleaners, except maids and housekeeping cleaners	280,000	\$22,320	\$10.73

Author's calculations from Bureau of Labor Statistics Data

High Cost of Living In Seattle Makes Inequality Worse

While wages have remained stagnant over this period of time, the economy has continued to grow resulting in the cost of living outpacing earnings. In fast growing cities like Seattle, costs have skyrocketed. Over just the last 18 months, from September 2012 to March 2014, rental housing costs will have climbed 10.5 percent. The average asking rent for a one-bedroom unit in or near downtown Seattle is \$1,438, and on the Eastside it's \$1,262.⁵ If you have children, the cost of living jumps significantly: child care in Washington State costs roughly \$12,000 per year, which is over half of a minimum wage earners' income.⁶ Given this high cost of living, one study estimates that a livable wage for a single adult in King County is \$17.55.⁷

How can we foster an economy that works for everyone? Raising the minimum wage is a critical first step, to be followed by other important solutions, such as tax reform.⁸ We show in the rest of this brief that by raising the minimum wage to \$15 an hour, Seattle can swiftly and effectively stimulate our economy and address the gender and race pay gap.

Building a Better Economy through Boosting the Minimum Wage

A Seattle Minimum Wage Will Lift Up Over 100,000 Workers

Under a policy that requires all employers to pay a minimum of \$15 an hour, we estimate that over 102,000 workers would receive a wage boost upon full implementation (see Table 3)⁹ This represents over one in five (22%) of the estimated 483,000 workers employed by Seattle businesses.^{10, 11}

Table 2 shows that the largest numbers of workers below \$15 an hour are concentrated in three industry groups: accommodations and food services, health care and social assistance, and retail. Workers in accommodations and food services comprise the largest group affected by a minimum wage policy (29,000) and the highest concentration within an industry (61%). Health Care and Social Assistance and the combined Retail cluster both employ 16,000 workers below \$15 an hour.

Table 2: Industries with the Largest Number of Low-wage Workers in Seattle (ranked high to low)¹²

Industry by 2 Digit NAICS Code	Total Jobs in Seattle (Including Full and Part Time)	Total Jobs Compensated Under \$15 per Hour	Percent of Total Jobs Compensated Under \$15
All Industries	483,318	102,177	21%
72 - Accommodation and Food Services	46,468	28,565	61%
62 - Health Care and Social Assistance	67,270	16,306	24%
44, 45 – Retail	41,497	16,040	39%
81 - Other Services	22,922	7,483	33%
Government	81,885	4,884	6%
56 - Administrative and Waste Services	12,811	4,730	37%
71 - Arts, Entertainment and Recreation	9,241	3,943	43%
31-33 Manufacturing	25,644	3,405	13%
54 - Professional and Technical Services	54,929	3,399	6%
52- Finance and Insurance	21,477	2,633	12%
48-49 - Transportation and Warehousing	12,994	2,551	20%
53 - Real Estate	10,139	2,475	24%
42 - Wholesale Trade	15,652	2,166	14%
61- Education	10,116	1,398	14%
23- Construction	15,712	1,052	7%
55 - Management	13,704	966	7%
51- Information Technology	19,938	552	3%
11 - Agricultural	712	282	40%

* For a breakdown of estimated jobs below \$15 by 3 digit industry code in Seattle see Appendix B. We do not include Mining and Utilities categories, as the data is suppressed by ESD for confidentiality. However, they are included in total jobs.

We estimate that the 102,000 Seattle-based employees earning below \$15 an hour make an average wage of \$11.95 an hour (see Table 3).¹³ With a minimum wage of \$15 an hour, workers would receive an average boost of \$3.13 per hour, or about \$6,510 per year if they work full time hours (2080 hours per year).

In policy debates over minimum wage, critics frequently over-estimate the total wage increase by assuming all workers below the new threshold are at the current minimum wage. As noted above, the average wage currently paid to employees below \$15 an hour is significantly higher than the minimum wage. Rather than an often claimed 60% increase in costs for businesses (the difference between \$15 and the current minimum wage), the average worker will receive only a 26% wage bump.

In total, workers employed in Seattle, across all industries, could make an additional \$526 million in new, gross earnings.¹⁴ Accommodation and Food Service workers would earn \$63 million more, Health Care and Social Assistance workers would earn \$72 million more and Retail workers would earn \$62 million more.

Table 3: Wage Estimations Before and After Implementation of a \$15 Minimum Wage

Industry by 2 Digit NAICS Code	Estimated Wage for Employees Below \$15	Estimated Average Wage Increase	Total Jobs Under \$15	Aggregate Wage Increase**
<i>All Industries</i>	\$11.95	\$3.05	102,000	\$526,100,000
11 - Agricultural	\$12.58	\$2.42	280	\$1,138,000
23- Construction	\$11.29	\$3.71	1,100	\$6,917,000
31-33 Manufacturing	\$11.64	\$3.36	3,400	\$23,991,000
42 - Wholesale Trade	\$11.85	\$3.15	2,200	\$13,590,000
44, 45 – Retail	\$12.57	\$2.43	16,000	\$62,069,000
48-49 - Transportation and Warehousing	\$12.01	\$2.99	2,600	\$14,219,000
51- Information Technology	\$10.85	\$4.15	600	\$4,586,000
52- Finance and Insurance	\$11.51	\$3.49	2,600	\$17,885,000
53 - Real Estate	\$12.46	\$2.54	2,500	\$10,880,000
54 - Professional and Technical Services	\$11.14	\$3.86	3,400	\$24,546,000
55 - Management	\$11.26	\$3.74	1,000	\$7,088,000
56 - Administrative and Waste Services	\$13.02	\$1.98	4,700	\$16,295,000
61- Education	\$11.71	\$3.29	1,400	\$5,516,000
62 - Health Care and Social Assistance	\$12.22	\$2.78	16,000	\$72,340,000
71 - Arts, Entertainment and Recreation	\$12.72	\$2.28	3,900	\$9,740,000

Industry by 2 Digit NAICS Code	Estimated Wage for Employees Below \$15	Estimated Average Wage Increase	Total Jobs Under \$15	Aggregate Wage Increase**
72 - Accommodation and Food Services	\$13.38	\$1.62	29,000	\$62,882,000
81 - Other Services	\$12.54	\$2.46	7,500	\$18,455,000
Government	\$11.25	\$3.75	4,900	\$26,741,000

*Authors Calculations from the Quarterly Census of Employment and Wages, obtained from Employment Security Department and the Puget Sound Regional Council. Mining and Utilities categories are not specified due to suppression by ESD, but they are included in the total number of jobs. **Aggregate Wage Increase = (Wage Increase * Total Jobs Under \$15 * 1680 Hours)*

A \$15 Minimum Wage Will Have a Real and Positive Effect on the Regional Economy

A \$15 minimum wage will boost the regional economy by providing \$526 million in additional gross income to those who earn the lowest wages. A major effect of raising paychecks for earners at the bottom of the wage scale is that these earners are likely to spend more of their income on local goods and service than higher-income earners.¹⁵ In turn, these households will increase patronage of area businesses, giving a boost to their community’s overall prosperity. To understand the scale of this effect, we estimate how increased spending by workers will ripple out through the local economy by calculating a multiplier effect, a common method to assess economic impacts.

We use the RIMS II model provided by the Bureau of Economic Analysis (BEA) for the Seattle Metropolitan Region to estimate this multiplier effect. Using this multiplier to assess the ripple effect of increased household wages, we estimate that every dollar in additional wages generates 1.2 dollars of economic output. With a wage boost of \$526 million dollars, worker spending and re-spending would contribute roughly \$625 million dollars to the regional economy.¹⁶

While a \$15 minimum wage policy results in a significant increase in earnings for low income families, it amounts to a marginal increase in employer costs. A boost of \$526 million for Seattle’s low wage workers represents less than half a percent of Seattle’s regional GDP¹⁷ and 2% of the total wages paid in Seattle (\$31.8 billion)¹⁸ in industries employing minimum wage workers. According to economist Michael Reich, labor costs are generally 40% of operating costs that are relevant for firms’ price setting behavior, thus an average 2% increase in total wages to minimum wage employers can be estimated to increase total operating costs less than 1% for these employers.¹⁹

Table 4: Total Wage Increase Compared to Total Labor Costs (in millions)²⁰

Industry by 2 Digit NAICS Code	Aggregate Wage Increase	Current Total Wages For Workforce	% Wage Increase Compared to Total Labor Costs
All Industries	\$526.1	\$31,815	1.7%
72 - Accommodation and Food Services	\$62.9	\$1,022	6.2%
62 - Health Care and Social Assistance	\$72.3	\$3,530	2.0%
44, 45 – Retail	\$62.1	\$1,708	3.6%
81 - Other Services	\$18.5	\$730	2.5%
Government	\$26.7	\$4,930	0.5%
56 - Administrative and Waste Services	\$16.3	\$642	2.5%
71 - Arts, Entertainment and Recreation	\$9.7	\$307	3.2%
31-33 Manufacturing	\$24.0	\$2,076	1.2%
54 - Professional and Technical Services	\$24.5	\$4,951	0.5%
52- Finance and Insurance	\$17.9	\$2,076	0.9%
48-49 - Transportation and Warehousing	\$14.2	\$744	1.9%
53 - Real Estate	\$10.9	\$528	2.1%
42 - Wholesale Trade	\$13.6	\$1,232	1.1%
61- Education	\$5.5	\$370	1.5%
23- Construction	\$6.9	\$961	0.7%
55 - Management	\$7.1	\$1,542	0.5%
51- Information Technology	\$4.6	\$3,070	0.1%
11 - Agricultural	\$1.6	\$58	2.8%

Author’s Analysis of data from Table 4 and the Quarterly Census of Employment and Wages for King County, 2012. Mining and Utilities categories are not specified due to suppression by ESD, but they are included in the total wage increase.

Other Cities Thrive After Increases to the Minimum Wage

Three cities with minimum wage laws – San Francisco, Santa Fe and San Jose – offer insights into how local economies and businesses fared after implementation.

San Francisco increased the minimum wage by 26% and Santa Fe increased the minimum wage by 65% over their respective state minimum wages. Two independent studies found that implementation of these wage policies had no discernible effect on employment in the two cities.²¹

When the Santa Fe implemented a 65% wage increase in 2004, from \$5.15 per hour to \$8.40 per hour, overall employment levels at firms did not change, and employment levels in the city increased compared to Albuquerque, which had a lower wage. Just last year, San Jose implemented a wage increase from \$8.00 to \$10.00 per hour (a 25% increase). Despite claims that businesses would flee and

cause massive job loss, the opposite occurred. Just one year later, registered businesses in San Jose are up by 3%, and in the retail sector, the number of registered small businesses increased by 19%. Unemployment in San Jose decreased by one percent since the wage hike went into effect, and in the sector most influenced by the wage increase, restaurants and hospitality, more than 4,000 jobs were created.²²

There are key explanations why local businesses and employment thrive when minimum wages are increased. The first reason may be the increased buying power of a large share of the workforce. When more money is in the pockets of earners at the lowest wages, they are more likely to spend it at local businesses. For example – households with incomes in the \$30,000 to \$39,999 range spend 106% of their pre-tax income. In contrast – households with incomes over \$70,000 (the median income in King County is roughly \$72,000), spend only 63% of their pre-tax income.²³ Table 6 illustrates how increased buying power resulting from boosting low-wage households can be seen in their spending at restaurants. When households at lower wages (\$15,000 - \$19,999 per year) move to more livable wages (\$30,000 - \$39,000 per year), their spending at restaurants increases by nearly 45%.²⁴ More local economic stimulus occurs when money is in the pockets of lower-income workers than when it is in the pockets of higher income earners or stockholders.

Table 5: Average Spending at Restaurants Based on Household Income²⁵

	Annual Household Income		
	\$15,000 to \$19,999	\$20,000 to \$29,999	\$30,000 to \$39,999
Annual expenditures at restaurants and eateries	\$1,197	\$1,394	\$1,746

Bureau of Labor Statistics, 2012 Consumer Expenditure Survey

Another reason there is little evidence of employment dropping after minimum wage increases is because many employers choose to adjust to minimum wage increases through wide and varied strategies, or “channels of adjustment.” A recent (2013) paper by John Schmitt at the Center for Economic Policy Research provides a thorough overview of this research, which we discussed in depth in our previous report, *Economic Impact of a Living Wage for Transportation and Hospitality workers in the City of SeaTac*.²⁶ We’ll summarize these options below:

Price Increases: In our previous study of the effects of Proposition 1 (the \$15 minimum wage in SeaTac), we projected that employers absorb the new costs through marginal price increases. With an immediate jump to \$15 per hour written into the initiative, we estimated that prices could soon increase between .5% and 1.5%.²⁷ Shortly after Proposition 1 was implemented, parking lots implemented a .50 cent service charge to cover increased labor costs, reflecting a price increase of roughly 1%.²⁸

Savings from Reduced Turnover: Employee turnover for jobs paying less than \$30,000 a year typically cost an employer 16% of an employee's annual salary.²⁹ The relationship between wages and turnover can be seen in the often-made comparison of Sam's Club and Costco. Costco's wages are 40% higher than at Sam's Club. However, turnover at these two retail giants are 17% and 44% respectively, resulting in cost savings for Costco.

Increase Productivity: With higher wages, employers may expect increased productivity. A survey of employers after implementation of San Francisco Airport's living wage policy revealed that many firms experienced performance improvements, with no significant changes in staffing after the living wage was implemented.³⁰

Change in Employment Composition: Critics of minimum wage increases often claim that employers required to pay higher wages will replace their workforce entirely with new, more skilled or desirable workers. A recent academic article on the minimum wage (2012) finds no discernible effect on workforce composition in terms of age, gender and race.³¹ Research on the San Francisco Airport Living Wage did show that for the occupation that received the highest bump, non-Federalized security screeners, there was a small displacement effect for education, e.g., fewer people with less than a high school education. (It should be noted that this group of workers received a 75% increase in compensation and were subject to new quality service rules). However, there was no discernible effect on the age and racial composition of the workforce.

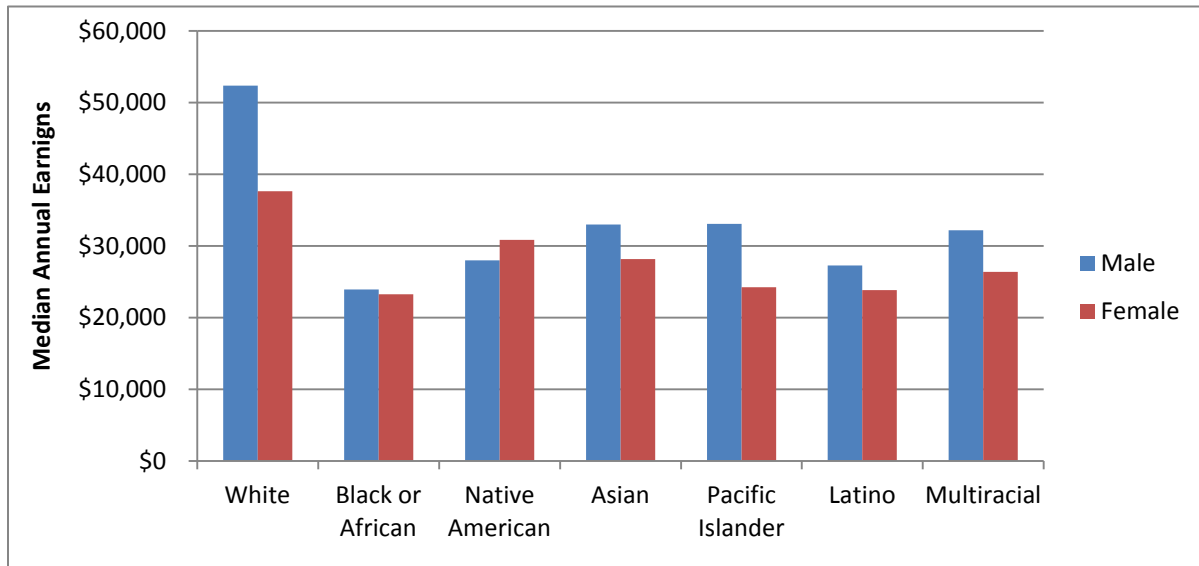
Equalize Wages for Higher Paid Employees: In order to increase wages for employees at the bottom of the wage scale, employers may delay increases in compensation for employees at the higher end. This effect is sometimes called "wage compression." One recent study of restaurants in Southern states concluded that workers at the higher level of the wage distribution received smaller pay increases after a minimum wage increase.³² The overall effect was an increase in the average wage within the firm combined with an overall reduced wage gap.

A Seattle Minimum Wage Will Reduce Race and Gender Pay Disparities

Women and People of Color Are At the Low-End of the Pay Range

One of the most significant indicators of racial, economic and gender inequality in our region is the difference in wages based on gender and race. If you are a white male in the City of Seattle, you are likely earning more than twice as much as a woman of color (see Figure 2). If you are a woman or a person of color living in Seattle, you are likely to earn between 44% and 71% of what white men earn. On the low end, median earnings for black or African women is \$23,000, nearly half that of white men at \$52,000. Black or African men fare little better, with median earnings of \$24,000. Across race and ethnicity, except for Native Americans, women earn less than men, a difference more pronounced for white women than women of color.

Figure 2: Median Annual Earnings for Seattle Residents by Race and Gender³³



Authors Analysis of 2006-2010 American Community Survey - Adjusted to 2012 dollars

The recent study conducted by University of Washington researchers for the City of Seattle bears these disparities out by examining the racial composition of low-wage workers in Seattle.³⁴ Table 6 shows that people of color disproportionately make less than \$15 per hour compared to white people. The flip side of this analysis is that workers of color will disproportionately benefit from a wage increase.

Table 6: Percent Workers Who Earn Below \$15, by Race and Ethnicity

Race/Ethnicity	Percent who earn \$9.32 or less	Percent who earn between \$9.33- \$12-12	Percent who earn between \$12.13- \$15	Total Percentage Earning <\$15
Latino	17%	17%	14%	49%
Native American	11%	29%	29%	70%
Asian/Pacific Islander	22%	9%	9%	41%
Black	17%	15%	12%	43%
Other	13%	12%	0%	26%
White	10%	7%	8%	25%

University of Washington Study

The reasons for these gaps are well researched. One of the biggest factors in earnings disparities is occupational segregation: people of color and women are more likely to work in fields or jobs that simply pay less. A recent national report on the gender pay gap shows that segregation by occupation

and industry accounts for nearly 50% of disparity in earnings.³⁵ Our analysis of Census data and data from the Employment Security Department confirms that over-representation of women and people of color in low-wage industries likely explains much of the pay gap for women and people of color in our region. For example, in food service across King County, nearly 63% of workers earn below \$15 an hour (see Table 3). People of color comprise 45% of those low-wage workers, despite making up 30% of Seattle’s total workforce (see Table 7).

Table 7: Occupation Groups with Overrepresentation of Women or People of Color (POC), Seattle

Occupation Group	White Men	White Women	POC Men	POC Women	All POC	All Women
<i>All Occupations</i>	38%	32%	16%	15%	30%	46%
Building Maintenance and Services	28%	12%	35%	25%	60%	37%
Food Service Occupations	26%	29%	24%	21%	45%	50%
Health Care Practitioners	22%	53%	8%	17%	25%	70%
Community and Human Services	23%	46%	14%	20%	34%	66%

Author’s analysis of Census Equal Employment Opportunity Tabulation data from American Fact Finder. Occupation groups defined by the Census.

With higher concentrations of people of color and women in low-wage jobs, a Seattle minimum wage would create a disproportionate benefit to these groups. In particular, the policy could reduce the earnings gap for women of color who face a double challenge in pay disparity.

Conclusion and Recommendations

Is a \$15 minimum wage right for Seattle? If the question is “what policy could have the largest effect on income inequality and race and gender earnings disparities?” the answer is yes. A minimum wage for Seattle will result in a triple bottom line, consistent with the values of Seattle residents and public officials.

First, lifting the wages of over 100,000 workers will have a profound, positive effect on economic hardship resulting from the high cost of living in Seattle. Although some Seattle prices for goods and services are marginally higher than the rest of the region, the real driver of skyrocketing costs is housing – which has little relationship to the minimum wage. Most of that benefit will go to Seattle residents, who make up a disproportionately large part of the low-wage labor force. This will allow low-income communities threatened with displacement to find a living wage job that allows families to prosper in place.

Second, a minimum wage policy will have a net positive effect on the local economy. Increased household earnings will result in more money spent on local goods and services. With the aggregate wage increase representing only 2% of all payroll costs in affected industries, it is unlikely that the policy will dramatically change the business climate. A net effect of \$625 million in economic output and 5,000 new jobs will outweigh marginal changes to employment, if any. Furthermore, experiences in other cities demonstrate that minimum wage increases result in net economic benefits.

Third, the disproportionate benefits that will flow to workers of color and women are immense. The City’s nine-year old Race and Social Justice Initiative requires Council and the Mayor to begin creating equity outcomes through policy – to which both the City Council and the Mayor are committed to implementing. It is unlikely that any other policy the City of Seattle could institute would have such a large-scale equity effect in the near future.

Some concerns about the effect of a \$15 minimum wage on specific industries are valid. In particular, individual business in industries like food services, accommodations, retail and human services will need to allocate larger amounts of their revenues to wages. However, common sense solutions for smaller establishments and non-profits can greatly ease the change to their costs. These include a phase-in for small businesses and additional public revenue for non-profits contracted with the City for human services.

Appendix A: Low-wage Occupations in King County and Their Median Wages

The following table is derived from the Washington State Employment Security Department’s Occupational Wage Data. The list represents all occupations with a median wage below \$15 an hour. Because the wage is a median, some workers in these occupations may make more than \$15 an hour and some workers in higher wage occupations may receive less.

Occupational title	Median Wage
Graders & Sorters, Agricultural Products	\$9.30
Baggage Porters & Bellhops	\$9.46
Dining Room & Cafeteria Attendants & Bartender Helpers	\$9.57
Comb Food Preparation & Serving Wkrs, Inc Fast Food	\$9.61
Packers & Packagers, Hand	\$9.70
Cooks, Fast Food	\$9.86
Counter Attendants, Cafeteria, Concession, Coffee Shop	\$10.10
Food Preparation & Serving Related Wkrs, A/O	\$10.15
Dishwashers	\$10.16
Hosts & Hostesses, Restaurant, Lounge, & Coffee Shop	\$10.29
Amusement & Recreation Attendants	\$10.45
Personal Care & Svc Wkrs, All Other	\$10.70
Building Cleaning Wkrs, All Other	\$10.75
Lifeguards, Ski Patrol, Recreational Protective Svc Wkrs	\$10.76
Locker Room, Coatroom, & Dressing Room Attendants	\$10.84
Child Care Wkrs	\$10.87
Manicurists & Pedicurists	\$10.89
Parking Lot Attendants	\$10.95
Food Servers, Nonrestaurant	\$11.01
Demonstrators & Product Promoters	\$11.03
Taxi Drivers & Chauffeurs	\$11.12
Photographers	\$11.13
Ushers, Lobby Attendants, & Ticket Takers	\$11.14
Svc Station Attendants	\$11.15
Tour Guides and Escorts	\$11.19
Personal & Home Care Aides	\$11.25
Entertainment Attendants & Related Wkrs, A/O	\$11.26

Economic & Equity Outcomes of a \$15/hr Seattle Minimum Wage

Occupational title	Median Wage
Nonfarm Animal Caretakers	\$11.34
Cooks, All Other	\$11.41
FarmWkrs & Laborers, Crop, Nursery, & Greenhouse	\$11.44
Maids & Housekeeping Cleaners	\$11.44
Telemarketers	\$11.57
Meat, Poultry, & Fish Cutters & Trimmers	\$11.58
Food Preparation Wkrs	\$11.61
Home Health Aides	\$11.77
Cashiers	\$11.78
FarmWkrs, Farm & Ranch Animals	\$11.78
Hotel, Motel, & Resort Desk Clerks	\$11.78
Sewing Machine Operators	\$11.80
Slaughterers & Meat Packers	\$11.90
Laundry & Dry-Cleaning Wkrs	\$12.10
Waiters & Waitresses	\$12.15
Retail Salespersons	\$12.23
Cleaners of Vehicles & Equipment	\$12.24
Cooks, Short Order	\$12.27
Motor Vehicle Operators, All Other	\$12.27
Gaming Dealers	\$12.30
Bicycle Repairers	\$12.37
Food Cooking Machine Operators & Tenders	\$12.40
Recreation Wkrs	\$12.45
Bartenders	\$12.58
Library Assistants, Clerical	\$12.69
Driver/Sales Wkrs	\$12.72
Gaming Change Persons & Booth Cashiers	\$12.72
Extruding/Forming Machine Set/Op/Tend, Synthetic/Glass	\$12.74
Veterinary Assistants & Laboratory Animal Caretakers	\$12.76
Cooks, Restaurant	\$12.97
Food Batchmakers	\$12.98
Production Wkrs, All Other	\$13.15
Social & Human Svc Assistants	\$13.24
Gaming Cage Wkrs	\$13.26

Occupational title	Median Wage
Production Worker Helpers	\$13.26
Gaming Svc Wkrs, All Other	\$13.29
Textile, Apparel, & Furnishings Wkrs, All Other	\$13.31
Upholsterers	\$13.37
Psychiatric Aides	\$13.44
Shoe & Leather Wkrs & Repairers	\$13.53
Physical Therapist Aides	\$13.58
Counter & Rental Clerks	\$13.67
Office Machine Operators, Not Computer	\$13.68
Religious Wkrs, All Other	\$13.70
Bakers	\$13.74
Photographic Process Workers & Machine Operators	\$13.76
Tellers	\$13.77
Packaging & Filling Machine Operators & Tenders	\$13.78
Electrician Helpers	\$13.80
Mail Clerks & Mail Machine Ops, Not Postal Svc	\$13.86
Preschool Teachers, Not Special Education	\$13.88
Janitors & Cleaners, Not Maids & Housekeeping Cleaners	\$13.91
Textile Cutting Machine Setters, Ops, & Tenders	\$13.92
Pourers & Casters, Metal	\$13.93
Concierges	\$13.94
Painter, Paperhanger, Plasterer, Stucco Helpers	\$13.94
Laborers & Freight, Stock, & Material Movers, Hand	\$14.00
Stock Clerks & Order Fillers	\$14.03
Fiberglass Laminators & Fabricators	\$14.08
Team Assemblers	\$14.08
Pipelayer, Plumber, Pipefitter, Steamfitter Helpers	\$14.11
Pharmacy Aides	\$14.15
Construction & Related Wkrs, All Other	\$14.16
Security Guards	\$14.19
Machine Feeders & Offbearers	\$14.20
Orderlies	\$14.30
Drilling/Boring Machine Tool Setters/Ops/Tenders	\$14.35
Residential Advisors	\$14.41

Economic & Equity Outcomes of a \$15/hr Seattle Minimum Wage

Occupational title	Median Wage
Merchandise Displayers & Window Trimmers	\$14.45
Hairdressers, Hairstylists, & Cosmetologists	\$14.48
Landscaping & Groundskeeping Wkrs	\$14.53
Construction Trades, All Other Helpers	\$14.55
Floral Designers	\$14.56
Forest & Conservation Technicians	\$14.56
Cutters & Trimmers, Hand	\$14.59
Transportation Inspectors	\$14.59
Nursing Assistants	\$14.60
Broadcast Technicians	\$14.61
Couriers & Messengers	\$14.64
Mold/Coremaking/Casting Mach Set/Op/Tend, Mtl/Plastic	\$14.64
Musical Instrument Repairers & Tuners	\$14.65
File Clerks	\$14.67
Tax Preparers	\$14.67
Assemblers & Fabricators, All Other	\$14.82
Print Binding and Finishing Workers	\$14.82
Prepress Technicians and Workers	\$14.92
Furnace, Kiln, Oven, Drier, & Kettle Ops/Tenders	\$14.97
Cooks, Institution & Cafeteria	\$15.00

APPENDIX B: Jobs Paying Less Than \$15 Per Hour by Seattle Industry

The table below is based on an unpublished analysis of wages by industry in King County which we requested from the Washington State Employment Security Department. ESD provided us with the number of jobs that paid less than \$12 per hour and \$15 per hour, broken out by industries at the three digit NAICS level. This allows for an unusual level of detail for dozens of discreet sectors. For the bulk of the policy brief, we provide information by two digit NAICS code, which contains the least amount of data suppression, and therefore a more comprehensive understanding of low-wage workers. For the appendix, however, we present all of the industries made available to us. Due to data suppression, there is a larger margin of error for each industry. This analysis is based on quarterly reporting to the Employment Security Department for unemployment insurance in the region. Finally, the number of jobs are in Full Time Equivalent (FTE), e.g., they don't represent the true number of jobs, but the hours of all jobs combined and divided by a full year of hours (ESD used 2,088 hours for 2012).

To estimate jobs below \$15 per hour in Seattle, we first had to convert these FTE jobs to actual jobs. Using an estimate of actual jobs by 3 digit NAICS from the Puget Sound Regional Council, we calculated the ratio of FTEs to actual jobs for each industry throughout the County. We then applied this ratio to the number of jobs below \$12 and \$15 an hour provided by ESD. Following this we assumed that the overall portion of King County jobs in Seattle (42%) was true for each industry to arrive at Seattle figures. The table below represents the results of these calculations.

Note that the Puget Sound Regional Council data varies slightly from the ESD data, in that certain industries are distributed across industry codes differently. The most significant difference is that PSRC distributes temp workers throughout all relevant industries, whereas ESD assumes that temp workers are in the administrative industry code. Given these variations and the level of data suppression for the 3 digit industry level, the estimates of low-wage jobs in Seattle are rough estimations.

NAICS Code	Industry description	Total Jobs in Industry	Jobs earning less than \$12	Jobs earning less than \$15
	All Industries	483,318		
111	Crop production	42	21	30
112	Animal production	20	8	13
113	Forestry and logging	66	1	2
114	Fishing, hunting and trapping	580	67	128
115	Agriculture and forestry support activities	4	1	2
211	Oil and gas extraction	*	*	*
212	Mining, except oil and gas	*	*	*
213	Support activities for mining	*	*	*
236	Construction of buildings	5,709	94	327
237	Heavy and civil engineering construction	1,824	12	47

Economic & Equity Outcomes of a \$15/hr Seattle Minimum Wage

NAICS Code	Industry description	Total Jobs in Industry	Jobs earning less than \$12	Jobs earning less than \$15
238	Specialty trade contractors	8,179	204	656
311	Food manufacturing	6,236	1,437	2,443
312	Beverage and tobacco product manufacturing	*	*	*
313	Textile mills	*	*	*
314	Textile product mills	453	106	180
315	Apparel manufacturing	861	333	486
316	Leather and allied product manufacturing	27	6	11
321	Wood product manufacturing	141	31	46
322	Paper manufacturing	115	3	14
323	Printing and related support activities	1,344	87	245
324	Petroleum and coal products manufacturing	64	3	10
325	Chemical manufacturing	222	8	25
326	Plastics and rubber products manufacturing	169	27	56
327	Nonmetallic mineral product manufacturing	1,369	55	168
331	Primary metal manufacturing	560	13	89
332	Fabricated metal product manufacturing	1,592	110	344
333	Machinery manufacturing	729	6	38
334	Computer and electronic product manufacturing	1,620	55	157
335	Electrical equipment and appliance mfg.	724	36	99
336	Transportation equipment manufacturing	7,435	85	273
337	Furniture and related product manufacturing	324	40	105
339	Miscellaneous manufacturing	1,318	80	212
423	Merchant wholesalers, durable goods	8,435	375	1,080
424	Merchant wholesalers, nondurable goods	4,566	329	825
425	Electronic markets and agents and broker	2,651	87	263
441	Motor vehicle and parts dealers	2,214	386	730
442	Furniture and home furnishings stores	1,274	219	401
443	Electronics and appliance stores	1,242	274	444
444	Building material and garden supply stores	2,117	528	918
445	Food and beverage stores	8,096	2,523	3,718
446	Health and personal care stores	2,133	462	977
447	Gasoline stations	659	409	518
448	Clothing and clothing accessories stores	3,221	1,291	1,778
451	Sporting goods, hobby, book and music stores	2,535	953	1,602
452	General merchandise stores	5,312	1,273	1,920

Economic & Equity Outcomes of a \$15/hr Seattle Minimum Wage

NAICS Code	Industry description	Total Jobs in Industry	Jobs earning less than \$12	Jobs earning less than \$15
483	Water transportation	2,910	101	375
484	Truck transportation	835	49	141
485	Transit and ground passenger transportation	1,793	395	735
486	Pipeline transportation	*	*	*
487	Scenic and sightseeing transportation	4,812	495	1,238
488	Support activities for transportation	*	*	*
491	Postal service	*	*	*
492	Couriers and messengers	1,637	346	505
493	Warehousing and storage	418	18	60
511	Publishing industries, except Internet	6,990	18	62
512	Motion picture and sound recording industries	1,241	330	441
515	Broadcasting, except Internet	2,051	76	167
517	Telecommunications	2,739	15	72
518	ISPs, search portals, and data processing	1,772	207	303
519	Other information services	5,144	33	129
521	Monetary authorities - central bank	*	*	*
522	Credit intermediation and related activities	5,962	766	1,398
523	Securities, commodity contracts, investments	6,044	95	280
524	Insurance carriers and related activities	9,347	118	444
525	Funds, trusts, and other financial vehicles	134	0	0
531	Real estate	8,477	764	1,873
532	Rental and leasing services	1,602	320	555
533	Lessors of nonfinancial intangible asset	60	2	4
53	Professional and technical services	54,929	1,444	3,399
54	Management of companies and enterprises	13,704	359	966
561	Administrative and support services	11,622	2,327	4,429
562	Waste management and remediation service	1,189	86	159
61	Educational services	10,116	615	1,398
621	Ambulatory health care services	23,652	930	2,699
622	Hospitals	20,706	170	436
623	Nursing and residential care facilities	9,340	2,617	5,061
624	Social assistance	13,572	4,492	7,311
711	Performing arts and spectator sports	4,037	729	1,177
712	Museums, historical sites, zoos, and parks	1,572	313	550
713	Amusements, gambling, and recreation	3,632	1,190	1,813
721	Accommodation	6,781	2,111	3,763
722	Food services and drinking places	39,687	17,252	24,890

NAICS Code	Industry description	Total Jobs in Industry	Jobs earning less than \$12	Jobs earning less than \$15
722511	Full-service restaurants	21,845	6,607	11,075
722513-5	Limited-service restaurants, cafeterias, snack & beverage bars	8,077	5,301	6,615
811	Repair and maintenance	2,654	351	675
812	Personal and laundry services	6,369	2,114	3,363
813	Membership associations and organization	8,194	690	1,474
	Government	81,885	1,308	4,884

Endnotes

¹Schmitt, John, *The Minimum Wage is Too Damn Low*, Center for Economic and Policy Research (March 2012). Available at: <http://www.cepr.net/documents/publications/min-wage1-2012-03.pdf>, accessed on April 3, 2014.

²Weber, Peter, "The case for \$22-an-hour minimum wage," *The Week* (3/19/13). Available at: <http://theweek.com/article/index/241530/the-case-for-22-an-hour-minimum-wage>, accessed on April 3, 2014.

³Mishel, Lawrence, "The wedges between productivity and median compensation growth," Economic Policy Institute (4/26/12). Available at: <http://www.epi.org/publication/ib330-productivity-vs-compensation/>, accessed on April 3, 2014.

⁴Bureau of Labor Statistics, *Occupations with the most job growth* (2012). Available at: www.bls.gov/emp/ep_table_104.htm, accessed on April 8, 2014.

⁵Bhatt, Sanjay, "Local apartment rents continue climbing," *The Seattle Times* (9/23/13). Available at: http://seattletimes.com/html/businesstechnology/2021884449_rents24xml.html#, accessed on April 3, 2014.

⁶Henry, Ben, "2013 Job Gap Report, King County, WA, 2013 Findings." Alliance for A Just Society. Available at: http://allianceforajustsociety.org/wp-content/uploads/2014/03/King.County.WA_2013-wage-report.pdf, accessed on April 7, 2014.

⁷Ibid.

⁸With low-wage earners paying 4.5 times more of their earnings in taxes than the highest income earners, our state needs comprehensive tax reform to directly address income inequality.

⁹Recently, researchers at the University of Washington released a study of low-wage workers in Seattle based on 2007 data. Our analysis, which uses 2012 Employment Security Department data, confirms much of their findings regarding the City of Seattle's current workforce.

¹⁰Note that this estimate is derived from 2012 State data on workers covered by unemployment insurance laws and does not include the self-employed.

¹¹Calculating jobs below \$15 an hour required combining two data sets. First, we obtained the total number of jobs paying under \$15 and under \$12 an hour in King County (parsed out into two and three digit industry codes) from ESD. However, as ESD does not provide the data at a city level, we used another source to adjust the King County data. We obtained the total number of jobs in Seattle only (also parsed out by two and three digit industry codes) from the Puget Sound Regional Council. Both data sets are based on unemployment insurance records processed by the Employment Security Department and include information on all employees. We applied the percentage of jobs below \$12 and \$15 an hour from ESD's King County data to PSRC's Seattle data, by industry. Given that 42% of all jobs in King County are located in the City of Seattle, we assumed that the proportions of low-wage workers are the same. (See Appendix B for more discussion of this method, including how we transformed

FTE to actual jobs). Source: Lower-wage jobs, King County, 2012 Employment Security Department, Industry Employment. Employment Estimates per Industry, Puget Sound Regional Council, 2012.

¹² Ibid.

¹³ The average wage estimate is based the total number of lower-wage FTE jobs obtained from the Employment Security Department. (Note that the ESD data is not a sample, but represents all employees and their wages as reported by employers.) We assumed an even distribution along the wage scale and thus used a mid-point wage estimate for each of the two wage bands. For workers below \$12 an hour, the midpoint between the ceiling and minimum wage is \$10.66 per hour. For workers earning between \$12 and \$15 an hour, the mid-point is \$13.50 per hour. We then calculated an average wage using the two mid-points and the number of workers in each band. To the extent that an industry has employment more heavily weighted towards minimum wage or more heavily weighted towards \$12 or \$15, the average estimated wage per industry could be higher or lower than actual. Source: Lower-wage jobs, King County, 2012 Employment Security Department, Industry Employment.

¹⁴ We derived the total wage increase estimates by multiplying the estimated hourly wage increase by the total number of hours worked by low wage workers. See endnote 11 for source and more detailed methodology. For the purposes of understanding the full potential impact of a \$15 minimum wage, we assume no changes in hours worked or job dislocation after implementation of the minimum wage. Based on existing research and that no city has adopted a \$15 minimum wage, the best one could estimate for reduced hours or dislocation would be zero to some theoretical number. Instead, our effort here is to show the full potential of the economic impact of a minimum wage.

¹⁵ Bureau of Labor Statistics, 2012 Consumer Expenditure Survey.

¹⁶ Bureau of Economic Analysis, RIMS II model for the Seattle Metropolitan Region, 2011 multiplier for households.

¹⁷ According to a joint project of the Brookings Institute and JPMorganChase, the Seattle Metropolitan area's GDP in 2012 was over \$230 billion dollars (\$231,559,530,650). A \$526 million dollar wage boost for the lowest wage earners represents .2% of the regional GDP. *The 10 Traits of Globally Fluent Metro Areas*, Global Cities Initiative, Available at: <http://www.brookings.edu/~media/Multimedia/Interactives/2013/tentraits/Seattle.pdf>, accessed on April 7, 2014.

¹⁸ We calculated total payroll costs by multiplying the average wage per industry, based on the Quarterly Census of Employment and Wages for 2012 (ESD), by the total number of jobs in each industry (Puget Sound Regional Council). See endnote 20.

¹⁹ Reich, Micheal, *Increasing the Minimum Wage: Benefits and Costs*, Center on Wages and Employment Dynamics (2012). Available at <http://www.irle.berkeley.edu/cwed/briefs/2012-01.pdf>, accessed on April 4, 2014.

²⁰ We estimated total payroll costs in Seattle by multiplying the average annual wage per industry (QCEW) in King County by total number of jobs in each industry in Seattle (PSRC). Keep in mind that the total wage bill is an estimation of payroll only and does not include total labor costs, which may include benefits, employer taxes, etc. We calculated the increase under a \$15 minimum wage by multiplying the average wage increase for the industry by the total number of workers, and then the average hours per job – 1,682 hours per year. We obtained the average hours worked per year by dividing the total hours worked in each industry – which we imputed from the FTE dataset from ESD – by the total number of jobs. Also note that the wage increase calculations do not calculate any vertical or horizontal ripple effects like giving raises to employees who currently make over \$15 an hour or effects on the regional labor market.

²¹ Dube, et.al *Do Businesses Flee Minimum Wages? Evidence from San Francisco and Santa Fe*, UC Berkeley Institute of industrial Relations (2006). Available at: http://www.irle.berkeley.edu/research/minimumwage/minwage_sfandsantafe.pdf, accessed on April 4, 2014. And Schmitt, John and David Rosnick, *The Wage and Employment Impact of Minimum-Wage Laws in Three Cities*, Center for Economic and Policy Research (March 2011). Available at: <http://www.cepr.net/documents/publications/min-wage-2011-03.pdf>, accessed on April 4, 2014.

²² Brock, Sam, "Reality Check: Hype or Reality? Numbers Behind Wage Hike and Jobs," *NBC Bay Area* (February 10, 2014). Available at: <http://www.nbcbayarea.com/news/local/Reality-Check-Minimum-Wage-One-Year-Later-244821391.html>, accessed on March 30, 2014.

²³ Bureau of Labor Statistics, 2012 Consumer Expenditure Survey.

²⁴ *Ibid.*

²⁵ *Ibid.*

²⁶ Schmitt, John, *Why Does the Minimum Wage Have No Discernible Effect on Employment?* Center for Economic and Policy Research (February 2013). Available at: <http://www.cepr.net/documents/publications/min-wage-2013-02.pdf>, accessed on August 13, 2013. And Dube, et al., *Do Businesses Flee Citywide Minimum Wages?* IIR Policy Brief (September 2006). Available at:

http://www.irle.berkeley.edu/research/minimumwage/minwage_sfandsantafe.pdf, accessed on August 14, 2013.

²⁷ Keenan, Nicole and Howard Greenwich, *The Economic Impacts of a Transportation and Hospitality Living Wage in the City of SeaTac Puget Sound Sage* (September 2013). Available at:

<http://www.pugetsoundsage.org/downloads/PSSage%20-%20Economic%20Analysis%20of%20SeaTac%20Living%20Wage%20-%209-25-13.pdf>, accessed on April 7, 2014.

²⁸ Martinez, Amy, "\$15 wage floor slowly takes hold in SeaTac," *Seattle Times* (February, 2014). Available at: http://seattletimes.com/html/localnews/2022905775_seatacprop1.xml.html, accessed on April 7, 2014.

²⁹ Boushey, Heather and Sarah Jane Glynn, *There are Significant Business Costs to Replacing Employees*, Center for American Progress (November 16, 2012). Available at: <http://www.americanprogress.org/wp-content/uploads/2012/11/CostofTurnover.pdf>, accessed on April 5, 2014.

³⁰ Reich, Michael, Peter Hall and Ken Jacobs, *Living Wages and Economic Performance: The San Francisco Airport Model*, Institute of Industrial Relations, University of California Berkeley (March 2003). Available at: http://www.irle.berkeley.edu/research/livingwage/sfo_mar03.pdf, accessed on April 4, 2014.

³¹ *Ibid.*

³² Hirsch, Barry, Bruce Kaufman and Tetyana Zelenska, "Minimum Wage Channels of Adjustment," *Industrial Relations* forthcoming. (November 2013). Available at:

http://www2.gsu.edu/~ecobth/IZA_HKZ_MinWageCoA_dp6132.pdf, accessed on April 4, 2014.

³³ 2006-2010 American Community Survey, table B20002. We used 2010 census data, as a more recent breakdown by race and gender was not available on AmericanFactFinder

³⁴ Klawitter, Marieka, Mark Long, and Robert Plotnick, *Who Would be Affected by an Increase In Seattle's Minimum Wage?*, Evans School of Public Affairs and the West Coast Poverty Center (2014). Available at: <https://s3.amazonaws.com/s3.documentcloud.org/documents/1096119/uw-evans-report-on-15-minimum-wage.pdf>, accessed on April 6, 2014.

³⁵ Farrell, Jane and Sarah Jane Glynn, "What Causes the Gender Wage Gap?", Center for American Progress (April 2013). Available at <http://www.americanprogress.org/issues/labor/news/2013/04/09/59658/what-causes-the-gender-wage-gap/>, accessed on March 21, 2014.