

**Exploring Education-Based, Minimum-Wage Incentives to Counter
Seattle's Rising Homelessness Rates**

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A Thesis

Submitted to the Honors Department

Northwest University

In Partial Fulfillment of the Requirements

for Graduating with Honors Recognition

May 2022

To Herb Pfiffner

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Advice to Future Honors Students

There is nothing more exciting in the pursuit of knowledge than to discover something original. Invention has driven man since the beginning of civilization and will continue to do so until the end of it. However, this thesis does not demand that you reinvent the wheel. When I began my thesis, the scope of it was so large that I was told even 500 pages would not nearly cover everything that I wanted to achieve. I ignored that advice. After months of paralysis at the daunting task of proposing a solution to the country's entire homelessness epidemic with one paper, I decided to scale the scope back to a much more manageable and meaningful size. My biggest piece of advice is to pick a topic that excites you wildly but define a scope that keeps you confined. The worst thing that could happen in a thesis of this size is to have a never-ending feeling that there is more to add. Ever-growing focus creates ambiguity and accomplishes nothing to neither the writer nor the reader. Be realistic to yourself, and go crazy within those parameters, but make sure those parameters are established, and established well.

Abstract

Seattle currently has the third highest rate of homeless of any city in the U.S., with homeless rates only rising. To assist struggling families, the United States government has issued a new federal minimum wage to lift pay to \$15 per hour. While this change helps many families, it creates difficulties for the homeless in their search for work. When wages increase, most individuals' wages are brought up to match inflation, but at the cost of a minority losing their jobs altogether. To combat a concerning path towards rising homelessness rates, this thesis explores the theory behind implementing education-based, minimum wage incentives. The implementation of this policy aims to increase accessibility to jobs for the homeless, and to help the falling rates of college enrollment. This study does not find the exact numbers to achieve, but rather dives into the theory of the policy itself.

Keywords: minimum wage, homeless, education, inflation

Exploring Education-Based, Minimum Wage Incentives to Counter Seattle's Rising Homelessness Rates

This paper serves to evaluate the idea of implementing an education-based tier structure into current minimum wage policies. To narrow the focus, the scope of this proposal will be limited to King County. With so many different regions having such different economic structures, introducing this policy as a blanket statement to all regions at once is unrealistic. However, if this idea proves successful in practice, alterations could be made to the proposition to apply to other cities as well. To better understand the issue of homelessness, and why addressing the issue from an education standpoint will help solve the homelessness crisis, this paper will dive into current homelessness statistics, education statistics, and education trends.

The proposed amendment to the current minimum wage system would implement a variable wage structure that is based on education level (i.e., middle school, high school, undergraduate, master's, doctorate, trade school, etc.). This alternation will focus on helping those who did not complete their education by giving businesses incentives to higher those with less education, and to take competitiveness away from lower entry-level jobs by giving educated individuals a different wage minimum. This change will not lower current minimum wages, but instead grow the lower tiers of minimum wages slower than the higher tiers to follow natural inflation until the desired hourly wage spread is achieved.

Basic Facts of Homelessness

Seattle's number of homeless individuals ranks third nationally at 11,751 behind only New York City's 77,943 homeless and Los Angeles's 63,706 homeless (McCarthy, 2021). King County's 2.026% of the national homeless population compares highly to only having 0.684% of the general national population (U.S. Census Bureau, 2020). Having triple the national average

ratio is not acceptable. However, there is a danger that comes with lumping so many homeless individuals into one common statistic.

While the common image of a homeless person is someone who lives in a tent on the street, that definition does not accurately depict the real depth of the population. According to a recent All Home study, only about half of the homeless population sleep in their cars or on the streets (Brownstone, 2021). The other half is made up of those who live in shelters, temporary housing, and who “couch surf.” An inaccurate image of the homeless creates borders between those who need help the most and those who can give it.

The falsehood of tent-living is not the only incorrect assumption when it comes to the average homeless person. Many people are unlikely to help the homeless because they feel it is deserved in one way or another, typically due to drug use. On a national scale, only 26% of the homeless population use drugs (National Coalition for the Homeless, 2017). While that number is higher than the standard national population of 9.2%, it is not the drastic statistical spike that most people assume it to be (Drug Facts, 2014). Not only is there a strong misunderstanding about what kind of lifestyle the average homeless person chooses to live, there is also a larger and more damaging misunderstanding about how they got there.

Outside of alcohol and drug abuse, countless other factors cause homelessness--many of which individuals have no control over. The Adverse Childhood Experience (ACE) test can predict future hardships based on childhood traumas, such as parental abuse, sexual abuse, neglect, family suicide, alcoholic parents, and more. A study on this test revealed that neglected children are up to 16 times more likely to experience homelessness, and young children who experienced sexual abuse are 36 times more likely to end up homeless at some point in their lives (Radcliff, 2019). Similarly, kids that grow up in foster care are 18 times from likely to

experience homelessness (Fien-burg & Fehsenfeld, 2012). These numbers are compared to the 1 in 194 national average of a random US citizen experiencing homelessness at some point in their lives (Fien-burg & Fehsenfeld, 2012).

On top of unfair life experiences, certain demographics are much more likely to become homeless at some point in their lives compared to heterosexual white males. Lurie and Schuster have compiled hundreds of different reports and findings to highlight the racial inequalities that exist within the homeless population. Their research shows that African Americans (by a factor of 3.5), Hispanics (by a factor of 1.67), Native Americans (by a factor of 4), and Asians (by a factor of 2) are more likely to become homeless (Lurie & Schuster, 2015). Their report also shows that female single parents, female domestic violence victims, LGBTQ youth, mentally disabled individuals, incarcerated individuals, and veterans also face disproportionate rates of homelessness (Lurie & Schuster, 2015).

Current Studies on Minimum Wage Effectiveness

The current minimum wage for Seattle, as of May 2022, sits at \$17.27 per hour, almost doubled from \$8.67 an hour ten years ago (Seattle, 2022). Washington state's minimum wage rests a bit lower, at \$14.49 per hour. While there has been no official word about the minimum wage projection for the next few years due to unknown inflation variables, we can estimate using current trends that the Washington state minimum wage will rise above \$20 per hour in the next fifteen years, though likely much sooner due to growing inflation rates (see Appendix A).

The United States Congressional Budget Office (CBO), in its report "The Effects on Employment and Family Income of Increasing the Minimum Wage" argues that higher federal minimum wages can have severe impacts on impoverished families (Alsalam, 2019). The CBO supports this argument by showcasing different levels of predicted changes to the federal

minimum wage (\$10, \$12, and \$15 per hour). In their analysis, they predict that if a \$15 minimum wage is implemented 1.3 million workers could be out of a job by 2025.

In line with the CBO, Joseph Sabia and Robert Nielsen of the Employment Policies Institute, in the report “Can Raising the Minimum Wage Reduce Poverty and Hardship?” (2011), study how other small factors contribute to poverty, such as financial, housing, health, and food insecurities. They ultimately discover that there exists “no statistically significant evidence that a higher minimum wage has helped reduce financial, housing, health, or food insecurity,” claiming that people in poverty already are not likely to be affected by the minimum wage increase as they struggle to find work (Sabia & Nielsen, 2011). The authors are not necessarily in favor of canceling minimum wage increases, but they argue that there is no blanket effect of raising all families out of poverty simply by raising the minimum wage, giving merit to the idea of a variable minimum wage system.

Contrarily, David Cooper of the Economic Policy Institute, in his report “Raising the Minimum Wage to \$15 by 2024 Would Lift Wages for 41 Million American Workers” (2017), argues that raising the federal minimum wage will have beneficial effects on the economy and can bring many families out of poverty. Cooper (2017) supports this argument by stating that because the buying power of the U.S. dollar has decreased in the last few years, those in poverty will feel the strongest increase in buying power with a minimum wage raise, while the rich will barely feel it at all. Cooper mentions how women, single parents, and people of color, are among those who will be positively affected the most, narrowing the wage gap between many different groups at once.

Interestingly, Cooper and the CBO share similar statistics, but with different emphases. Cooper focuses on the fact that 37.3 million Americans will receive a raise, while the CBO

acknowledges that while many Americans will receive a raise, it is at the cost of 1.3 million other Americans losing their jobs. Cooper seems to value getting middle-class families out of danger of becoming jobless/homeless, while the CBO values making sure lower-class individuals are not left behind.

Taking a step back to look at the international scale, T. H. Gindling of the IZA World of Labor in the report “Does Increasing the Minimum Wage Reduce Poverty in Developing Countries?” (2018) expands on the idea of increasing the minimum wage to show that it can have both positive and negative effects, depending on the labor market. Gindling supports his expansion by comparing multiple nations with different minimum wages, especially those that have low minimum wages. The main takeaway from Gindling’s findings is that “while minimum wages can be part of a package of poverty-reducing policies, they should not be the only mechanism or even the most important one” (2018). Gindling (2019) brings both aforementioned arguments together, showing that a solution likely exists somewhere in-between in the form of a conditional/variable/sectional minimum wage. Looking at how countries differ in results implies that the same might be true for individual sections of the United State, wherein a policy may work perfectly in Seattle, but not in Chicago or New York.

While Seattle has one of the highest homeless populations in the country, it has the lowest number of people that would be directly and indirectly affected by a federal minimum wage change (see Appendix B). The minimum wage for Seattle already sits just below the proposed \$15 an hour federal minimum wage by President Biden (Executive Order 14026, 2021). This highlights the need for a Seattle-specific alteration, whereas a federal application might not have the intended effects in Seattle.

Decrease in College Enrollment

This section serves to evaluate and emphasize the importance of assessing the current downward trend in college applicants, and how it affects job availability and the minimum wage arguments. To properly assess how a minimum wage policy would affect the education rate, an in-depth review needs to be taken on the causes of the current college enrollment decline.

American colleges tend to see fluctuating enrollment numbers conversely relational to the available jobs, as adults generally look towards colleges to supplement the need for work (Nadworny, 2021). However, due to important factors such as rising technology, the COVID-19 pandemic, and decreasing birth rates, the economic crashes of 2020 did not result in the enrollment rise that was predicted. Doug Shapiro, the Executive Director of the National Clearinghouse Research Center, tells NPR's Nadworny (2021) that "[t]his time, that entire crest of the wave just didn't happen—it got swallowed up by the pandemic."

In a recent press release from the National Student Clearinghouse, Shapiro states that the length of this enrollment drought "will depend on how many of the missing students... will be able to make their way back to school for the coming fall" (Nietzel, 2021). Heeding Shapiro's warnings, the numbers from fall 2021 do not look promising, with a 3.2% decrease from fall 2020, which already faced a 3.4% decrease from the previous year (Schwartz, 2021).

Enrollment numbers across colleges of all kinds (public, private, and community) have dropped drastically during the last year, with 727,000 fewer undergraduate students in the 2021 Spring semester than the previous Spring (National Student Clearinghouse, 2021). This 4.9% decrease is the biggest that colleges have faced in the last decade and marks the largest two-year decline in the last half-century at 6.5% (Douglas-Gabriel, 2021). College enrollment has been

declining since 2012, but Nadworny (2021) says that “the pandemic turbocharged the declines at the undergrad level,” boosting a decline that was already taking place.

Interestingly, graduate-level programs have already seen readjustment, with graduate enrollments seeing a 2.1% increase since last fall, to begin a rebalance and correct the numbers lost in 2020 (Whitford, 2021). The steadiness of graduate enrollment is likely due to Shapiro’s concept of enrollment vs. job market converse relationality, with older students more able to afford to attend school during the pandemic recession, with high school graduates unable to step away from family commitments due to the severity of the pandemic. To confirm this theory, the National Student Clearinghouse Research Center has provided data that shows that first-year college enrollment has dropped 12.3% since fall 2019, nearly doubling the already-concerning 6.5% decline across college students of all types (Schwartz, 2021).

Going forward, there is not much hope in terms of college enrollment rising anytime soon, and the decline is expected to worsen. Bill DeBaun, a FAFSA expert from the National College Attainment Network, says that “[t]he FAFSA is one of the best indicators that we have about college going” (Nadworny, 2021). With this in mind, we can safely predict a serious drop in 2022 enrollment as well, with a 4.8% drop in FAFSA completion for the 2022 school year, which already faced a 3.7% drop from the year prior (Nadworny, 2021). This decline in FAFSA registration comes disproportionately from low-income and first-generation students, following the decrease in Pell grant funding over the past few years that makes it much harder for lower-class families to afford college (Adams, 2020). Shapiro points out that especially “students from low-income families who’ve been lured away by this temporary hitch in the labor market where wages are increasing” are the most likely to be gravitating away from college (Douglas-Gabriel, 2021). This point from Shapiro especially highlights the effects that big corporations have on an

individual's choice to attend college. With an increase in the minimum wage by education level, students will be less likely to be trapped by the false promise of high wages by companies. This "false promise" refers to the idea that students are excited by the idea of a higher wage but often do not get raises much higher than the starting wage. Even employees who rise the ranks and earn higher salaries at the company earn much less than those who complete even just a bachelor's degree (See Appendices D & E). By using data from Appendices D and E, we can see that even the top 10% of retail workers make less than those who have even just a few college credits.

With companies riding the wave of this economic revival, stores can offer much higher wages than ever before, distracting students from the time/money investment of college. Many stores, like Target and Walmart, are offering \$20/hour wages for entry-level positions, enticing the option of postponing college.

However, while many students take these positions with anticipations of attending college after a year or two, that plan rarely takes fruition. When asked about the topic, Shapiro observed: "The longer students are away from school, the harder and harder it becomes for them to come back" (Whitford, 2021). Recent surveys have found that the likelihood of high school students attending a university or four-year college dropped a staggering 20% over the worst months of the COVID-19 pandemic, to sit at about 53% currently (Dickler, 2021).

Going forward, the COVID-19 pandemic brings an encore to the foreshadowed enrollment cliff, with a much worse birthrate drop through the 2020 pandemic than the 2008 recession. Between 2000 and 2019, daily births declined by 0.39% annually according to the US Census Bureau (US. Census Bureau, 2021). However, this same study shows that 2020 saw a

staggering 4.06% drop in births from the year before, hitting the biggest decrease in almost a century.

With just under half of the homeless population having even completed high school, it becomes clear how important education is. If we can incentivize education and offer fair wages to compensate for it, then homeless people will have a more substantial incentive to get back in school.

The Policy/Proposition

Instead of flat, unconditional minimum wages, this idea proposes wages based on highest educational achievement. This would mark the following achievement from the lowest hourly salary to the highest hourly salary, beginning with less than high school diploma, high school diploma/GED, associate's degree, bachelor's degree, master's degree, and doctoral degree, with trade/technical school marked at the same level as undergraduate.

While the proposed change may at first seem like a punishment to the uneducated, it intends to help the homeless obtain meaningful jobs. At the current rate, the minimum wage is doing nothing but widening the gap between the lower class and the working class. While increases in the minimum wage are meant to aid the working class and those who already have steady jobs, the lower class often faces the challenge of rising costs without jobs to counteract inflation. Because of the inflation, many small businesses are only allowed to hire a certain amount of people at a time, therefore limiting job availability.

Four main reasons explain how this proposal offers a solution based on the research previously given:

1. The working class will be more incentivized to further their education, reducing their chances of homelessness.

2. Educated individuals will be looking for jobs based on their minimum wage, lessening competition for lower wage jobs that can go to the homeless.
3. Smaller businesses have more incentive to hire a less educated person, helping them get a wage to go back to school or better their living situation.
4. Individuals already facing homelessness will have increased motivation to attend school, even if just to complete a GED, therefore lowering their chances of staying homeless.

By *lowering* the minimum wage for less educated, they have new opportunities to get employment where they otherwise would not be able to. The following factors (viz., wage spread, implantation curve, and implementation timeline) are all the last steps that need to be negotiated to finalize the amendment to minimum wage policies. Each factor has multiple options to be weighed. There are no definitive numbers given for each factor as this thesis aims to describe the theory behind the proposal, not delineate exact steps. By lowering the minimum wage for those King County citizens who are less educated, they have new opportunities to get employment where they otherwise would not be able to.

Wage Spread

The “wage spread” refers to the difference in minimum wages between each education level. For example, a high school diploma having a minimum of \$15 and a master’s degree having a minimum of \$17 is a different spread than \$15 and \$20 respectively. There are six major education levels to be considered for this proposal: less than high school diploma, high school diploma, associate degree, bachelor’s degree, master’s degree, and doctoral/professional degree. Trade/technical school will sit at the same level as the associate degree as a similar time commitment is required for both. Earning a GED will rank similarly to earning a high school

diploma. These education levels are based on current earnings (see Appendix E). According to the Economic Policy Institute, there is a clear converse relationship between the amount of education completed and the likelihood of working for minimum wage (See Appendix C). As noted earlier, the numbers do not incorporate Seattle as the minimum wage in Seattle is different than federally, however it can be still used to approximate the ratios of people that would be affected by the change. The spread should not be higher than the average earnings for each education level, as the goal is not to increase wages for all, but instead to promote education and offer more hiring incentives for those who are less educated.

Implementation Curve

The “implementation curve” refers to how the current wages will rise to the desired levels. There are three main implementation curves for this proposal: linear (ex. \$0, \$0.25, \$0.50, \$0.75, \$1); exponential (ex. \$0.04, \$0.16, \$0.36, \$0.64, \$1); and immediate (ex. \$0, \$1). Immediate implementation is by far the most unrealistic option as it would cause thousands of businesses to instantly increase work wages, causing either loss of labor or an increase in pricing. Exponential and linear are both good options as they take place over time, but exponential is slightly favorable as it follows the natural inflation a bit closer.

Implementation Timeline

The “implementation timeline” refers to how soon the intended wages will be reached. Naturally, if the immediate implantation curve is selected, the implementation timeline is redundant. However, for the much more realistic exponential and linear curves, a timeline decides the magnitude of the curve being used. For example, a two-year curve would yield quick results, but likely at the cost of upsetting the economy. On the opposite end, a fifty-year curve

would allow for an extremely natural wage separation, but at the cost of not having much effect for fifty years.

Conclusion

The idea to alter the current minimum wage structure to allow education-based minimum wages not only helps small businesses employ more workers and promote higher education, but most importantly it empowers the uneducated and homeless to get jobs and work their way up the social ladder. With the way that the current minimum wage is, the homeless have little chance at earning sustainable jobs when they must compete with everyone else fighting for the same pay. By breaking up wages into tiers, this amendment allows those who need it the most to earn for themselves. This idea lifts the homeless population, while also taking the weight off the government's budget by boosting the economy and lowering the need for government wage assistance. Overall, an education-based minimum wage is the best solution to the problems that the current minimum wage structure is causing.

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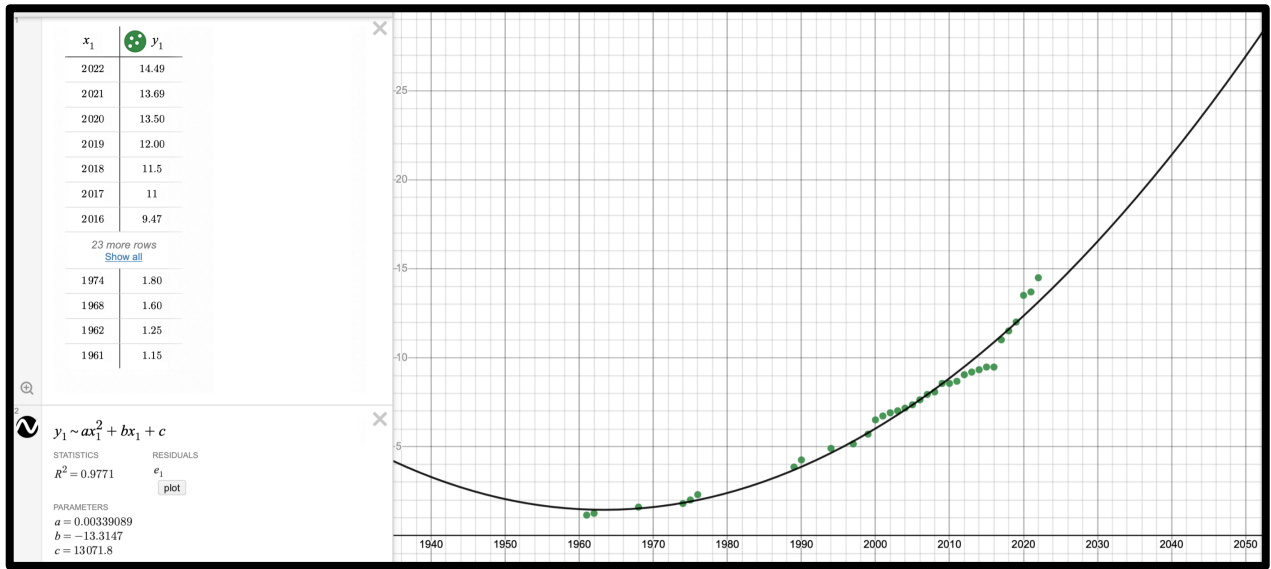
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Appendix A



Graph by Jake Fankhauser (Washington State Department of Labor and Industries, 2022)

Appendix B

Summary of impact of increasing the minimum wage to \$15 by 2025 (in 2025), by state

State	Total estimated state workforce (thousands)	Directly affected (thousands)	Share of state workforce directly affected	Indirectly affected (thousands)	Share of state workforce indirectly affected	Total affected (thousands)	Total share of state workforce affected	State's share of total affected nationally	Change in total annual wages of state's affected workers (2018\$, thousands)	Change in avg-annual earnings of state's year-round affected workers (2018\$)	Real percent change in avg-annual earnings
National total	150,469	23,237	15.4%	10,222	6.8%	33,459	22.2%	100.0%	\$109,327,417	\$3,300	13.3%
Alabama	2,016	565	28.0%	153	7.6%	717	35.6%	2.1%	\$2,880,374	\$4,000	16.6%
Alaska	352	66	18.8%	19	5.4%	85	24.2%	0.3%	\$220,584	\$2,600	9.2%
Arizona	3,020	149	4.9%	850	28.2%	999	33.1%	3.0%	\$830,454	\$800	3.0%
Arkansas	1,246	360	28.9%	97	7.8%	457	36.7%	1.4%	\$1,017,352	\$2,200	8.3%
California	19,073	5	0.0%	5	0.0%	9	0.0%	0.0%	\$15,863	\$1,700	5.9%
Colorado	2,684	97	3.6%	621	23.1%	718	26.8%	2.1%	\$532,839	\$700	2.7%
Connecticut	1,778	8	0.5%	44	2.5%	52	2.9%	0.2%	\$72,685	\$1,400	5.1%
Delaware	436	102	23.5%	32	7.3%	134	30.8%	0.4%	\$438,661	\$3,300	13.9%
District of Columbia	364	2	0.6%	9	2.3%	11	3.0%	0.0%	\$34,029	\$3,100	9.3%
Florida	8,969	2,397	26.7%	712	7.9%	3,109	34.7%	9.3%	\$10,803,265	\$3,500	14.0%
Georgia	4,564	1,197	26.2%	333	7.3%	1,530	33.5%	4.6%	\$6,381,944	\$4,200	17.4%
Hawaii	729	174	23.9%	51	7.0%	225	30.9%	0.7%	\$561,361	\$2,500	9.7%
Idaho	712	194	27.3%	54	7.6%	248	34.9%	0.7%	\$1,001,496	\$4,000	17.0%
Illinois	6,164	52	0.8%	167	2.7%	219	3.6%	0.7%	\$467,096	\$2,100	8.1%
Indiana	3,026	776	25.6%	240	7.9%	1,016	33.6%	3.0%	\$3,618,793	\$3,600	15.3%
Iowa	1,525	386	25.3%	105	6.9%	491	32.2%	1.5%	\$1,619,966	\$3,300	14.5%
Kansas	1,381	329	23.8%	119	8.6%	447	32.4%	1.3%	\$1,490,682	\$3,300	13.7%
Kentucky	1,860	513	27.6%	139	7.5%	652	35.1%	1.9%	\$2,781,378	\$4,300	18.0%
Louisiana	1,993	557	27.9%	163	8.2%	720	36.1%	2.2%	\$3,271,408	\$4,500	18.7%
Maine	616	32	5.1%	160	26.0%	192	31.1%	0.6%	\$176,685	\$900	3.5%
Maryland	3,056	24	0.8%	87	2.8%	111	3.6%	0.3%	\$324,647	\$2,900	10.6%
Massachusetts	3,470	25	0.7%	90	2.6%	115	3.3%	0.3%	\$263,292	\$2,300	8.6%
Michigan	4,375	1,001	22.9%	356	8.1%	1,357	31.0%	4.1%	\$3,547,310	\$2,600	11.0%
Minnesota	2,777	333	12.0%	97	3.5%	430	15.5%	1.3%	\$733,545	\$1,700	7.6%
Mississippi	1,204	378	31.4%	100	8.3%	478	39.7%	1.4%	\$2,176,212	\$4,600	18.7%
Missouri	2,762	636	23.0%	210	7.6%	846	30.6%	2.5%	\$1,336,602	\$1,600	6.3%
Montana	457	123	26.9%	33	7.2%	156	34.1%	0.5%	\$421,124	\$2,700	11.6%
Nebraska	951	203	21.4%	95	9.9%	298	31.3%	0.9%	\$721,848	\$2,400	10.0%
Nevada	1,396	393	28.2%	146	10.4%	539	38.6%	1.6%	\$1,050,316	\$1,900	7.0%
New Hampshire	678	116	17.1%	43	6.4%	159	23.5%	0.5%	\$460,966	\$2,900	13.3%
New Jersey	4,439	15	0.3%	139	3.1%	154	3.5%	0.5%	\$336,402	\$2,200	7.7%
New Mexico	940	264	28.0%	88	9.3%	351	37.4%	1.0%	\$777,868	\$2,200	8.5%
New York	9,535	135	1.4%	966	10.1%	1,101	11.5%	3.3%	\$902,245	\$800	3.0%
North Carolina	4,496	1,192	26.5%	308	6.8%	1,500	33.4%	4.5%	\$6,204,993	\$4,100	17.3%
North Dakota	380	72	19.0%	27	7.2%	100	26.2%	0.3%	\$299,781	\$3,000	12.7%
Ohio	5,309	1,365	25.7%	370	7.0%	1,735	32.7%	5.2%	\$5,476,859	\$3,200	13.4%
Oklahoma	1,724	427	24.8%	135	7.9%	563	32.6%	1.7%	\$2,355,164	\$4,200	17.1%
Oregon	1,824	19	1.1%	270	14.8%	289	15.9%	0.9%	\$147,427	\$500	1.8%
Pennsylvania	5,920	1,391	23.5%	449	7.6%	1,840	31.1%	5.5%	\$6,840,333	\$3,700	16.4%
Rhode Island	518	87	16.8%	44	8.5%	131	25.3%	0.4%	\$278,357	\$2,100	8.9%
South Carolina	2,140	502	23.5%	182	8.5%	684	32.0%	2.0%	\$2,772,993	\$4,100	16.9%
South Dakota	414	98	23.6%	35	8.5%	133	32.0%	0.4%	\$323,404	\$2,400	9.8%
Tennessee	2,933	766	26.1%	243	8.3%	1,009	34.4%	3.0%	\$3,949,924	\$3,900	15.9%
Texas	13,345	3,543	26.6%	996	7.5%	4,539	34.0%	13.6%	\$19,553,032	\$4,300	17.5%
Utah	1,369	354	25.8%	99	7.2%	453	33.1%	1.4%	\$1,451,431	\$3,200	14.4%
Vermont	301	58	19.2%	22	7.4%	80	26.6%	0.2%	\$109,636	\$1,400	5.4%
Virginia	4,058	863	21.3%	263	6.5%	1,126	27.7%	3.4%	\$4,261,538	\$3,800	15.9%
Washington	3,360	3	0.1%	3	0.1%	6	0.2%	0.0%	\$10,222	\$1,800	6.6%
West Virginia	717	185	25.8%	51	7.1%	236	32.9%	0.7%	\$784,426	\$3,300	13.7%
Wisconsin	2,834	643	22.7%	186	6.6%	829	29.2%	2.5%	\$2,920,966	\$3,500	16.2%
Wyoming	279	63	22.6%	19	6.7%	82	29.4%	0.2%	\$317,643	\$3,900	16.2%

Notes: Values reflect the result of the proposed change in the federal minimum wage. Wage changes resulting from scheduled state and local minimum wage laws are accounted for by EPI's Minimum Wage Simulation Model. Totals may not sum due to rounding. Shares calculated from unrounded values. Directly affected workers would see their wages rise as the new minimum wage rate will exceed their current hourly pay; indirectly affected workers have a wage rate just above the new minimum wage (between the new minimum wage and 115 percent of the new minimum). They would receive a raise as employer pay scales are adjusted upward to reflect the new minimum wage.

Source: Economic Policy Institute Minimum Wage Simulation Model using data from the Census Bureau, Bureau of Labor Statistics, and Congressional Budget Office. See David Cooper, Zane Mokhiber, and Ben Zipser, *Minimum Wage Simulation Model Technical Methodology*, February 2019. Dollar values adjusted by projections for CPI-U in CBO 2019.

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(Cooper, 2017)

Appendix C

Demographic characteristics of workers affected by increasing the federal minimum wage to \$15 by 2025

Group	Total estimated workforce (thousands)	Directly affected (thousands)	Share of total directly affected	Indirectly affected (thousands)	Share of total indirectly affected	Total affected (thousands)	Share of total affected	Group's share of total affected
All workers	150,469	23,237	15.4%	10,222	6.8%	33,459	22.2%	100.0%
Gender								
Women	72,988	13,656	18.7%	5,851	8.0%	19,508	26.7%	58.3%
Men	77,481	9,581	12.4%	4,370	5.6%	13,951	18.0%	41.7%
Age								
Age 19 or younger	5,258	2,872	54.6%	486	9.2%	3,358	63.9%	10.0%
Age 20 or older	145,211	20,366	14.0%	9,736	6.7%	30,102	20.7%	90.0%
Ages 16–24	20,500	9,053	44.2%	2,322	11.3%	11,375	55.5%	34.0%
Ages 25–39	50,705	7,325	14.4%	3,824	7.5%	11,149	22.0%	33.3%
Ages 40–54	48,076	3,791	7.9%	2,423	5.0%	6,214	12.9%	18.6%
Age 55 or older	31,888	3,068	9.8%	1,653	5.3%	4,721	15.1%	14.1%
Race/ethnicity								
White	89,040	11,631	13.1%	5,749	6.5%	17,380	19.5%	51.9%
Black	17,784	4,448	25.0%	1,267	7.1%	5,715	32.1%	17.1%
Hispanic	29,595	5,648	19.1%	2,405	8.1%	8,053	27.2%	24.1%
Asian or other race/ethnicity	14,051	1,511	10.8%	801	5.7%	2,312	16.5%	6.9%
Men of color	31,715	5,063	16.0%	2,153	6.8%	7,217	22.8%	21.6%
Women of color	29,714	6,543	22.0%	2,320	7.8%	8,863	29.8%	26.5%
Family status								
Married parent	38,042	3,007	7.9%	1,826	4.8%	4,833	12.7%	14.4%
Single parent	13,940	3,233	23.2%	1,329	9.5%	4,562	32.7%	13.6%
Married, no children	38,588	3,245	8.4%	1,931	5.0%	5,175	13.4%	15.5%
Unmarried, no children	59,899	13,753	23.0%	5,137	8.6%	18,889	31.5%	56.5%
Usual work hours								
Part time (<20 hours)	8,690	2,786	32.1%	821	9.4%	3,607	41.5%	10.8%
Mid time (20–34 hours)	22,353	7,768	34.8%	2,436	10.9%	10,204	45.7%	30.5%
Full time (35+ hours)	119,426	12,683	10.6%	6,965	5.8%	19,648	16.5%	58.7%
Educational attainment								
Less than high school	15,314	5,201	34.0%	1,483	9.7%	6,684	43.6%	20.0%
High school	37,401	8,537	22.8%	3,715	9.9%	12,252	32.8%	36.6%
Some college, no degree	35,005	7,043	20.1%	3,090	8.8%	10,132	28.9%	30.3%
Associate degree	13,569	1,455	10.7%	919	6.8%	2,374	17.5%	7.1%
Bachelor's degree or higher	49,181	1,002	2.0%	1,015	2.1%	2,017	4.1%	6.0%
Family income								
Less than \$25,000	20,317	8,712	42.9%	2,628	12.9%	11,340	55.8%	33.9%
\$25,000–\$49,999	30,681	5,783	18.9%	3,216	10.5%	8,999	29.3%	26.9%
\$50,000–\$74,999	27,946	3,585	12.8%	1,840	6.6%	5,424	19.4%	16.2%
\$75,000–\$99,999	21,875	2,111	9.6%	1,069	4.9%	3,180	14.5%	9.5%
\$100,000–\$149,999	26,859	1,978	7.4%	949	3.5%	2,927	10.9%	8.7%
\$150,000 or more	22,791	1,069	4.7%	520	2.3%	1,589	7.0%	4.7%

<i>Family income-to-poverty ratio</i>								
At or below the poverty line	10,421	5,071	48.7%	1,166	11.2%	6,237	59.8%	18.6%
101–200% of poverty line	21,924	7,047	32.1%	2,939	13.4%	9,986	45.5%	29.8%
201–400% of poverty line	47,296	6,856	14.5%	3,932	8.3%	10,788	22.8%	32.2%
401% or above	69,885	3,793	5.4%	2,104	3.0%	5,897	8.4%	17.6%
Poverty status not available	943	471	49.9%	81	8.6%	552	58.5%	1.6%
<i>Industry</i>								
Agriculture, forestry, fishing, hunting	2,463	453	18.4%	151	6.1%	604	24.5%	1.8%
Construction	8,311	841	10.1%	482	5.8%	1,322	15.9%	4.0%
Manufacturing	16,562	1,694	10.2%	822	5.0%	2,516	15.2%	7.5%
Wholesale trade	4,101	437	10.7%	203	4.9%	640	15.6%	1.9%
Retail trade	17,702	5,046	28.5%	1,497	8.5%	6,542	37.0%	19.6%
Transportation, warehousing, utilities	7,834	639	8.2%	347	4.4%	985	12.6%	2.9%
Information	3,207	213	6.6%	105	3.3%	318	9.9%	1.0%
Finance, insurance, real estate	9,587	540	5.6%	324	3.4%	864	9.0%	2.6%
Professional, scientific, management, technical services	9,307	313	3.4%	170	1.8%	483	5.2%	1.4%
Administrative, support, and waste management	6,037	1,353	22.4%	494	8.2%	1,846	30.6%	5.5%
Education	14,746	1,438	9.7%	606	4.1%	2,044	13.9%	6.1%
Healthcare	21,591	3,265	15.1%	1,279	5.9%	4,544	21.0%	13.6%
Arts, entertainment, recreational services	3,048	782	25.7%	360	11.8%	1,142	37.5%	3.4%
Accommodation	1,827	600	32.8%	255	14.0%	855	46.8%	2.6%
Restaurants and food service	10,405	4,141	39.8%	2,087	20.1%	6,227	59.8%	18.6%
Other services	6,088	1,200	19.7%	852	14.0%	2,052	33.7%	6.1%
Public administration	7,652	283	3.7%	190	2.5%	473	6.2%	1.4%
<i>Tipped occupations</i>								
Nontipped workers	146,034	21,948	15.0%	7,828	5.4%	29,776	20.4%	89.0%
Tipped workers	4,436	1,290	29.1%	2,394	54.0%	3,684	83.0%	11.0%
<i>Sector</i>								
For-profit	114,498	20,079	17.5%	8,749	7.6%	28,828	25.2%	86.2%
Government	22,777	1,684	7.4%	815	3.6%	2,499	11.0%	7.5%
Nonprofit	13,194	1,474	11.2%	658	5.0%	2,133	16.2%	6.4%

Notes: Values reflect the population likely to be affected by the proposed change in the federal minimum wage. Wage changes resulting from scheduled state and local minimum wage laws are accounted for by EPI's Minimum Wage Simulation Model. Totals may not sum due to rounding. Shares calculated from unrounded values. Directly affected workers will see their wages rise as the new minimum wage rate will exceed their current hourly pay. Indirectly affected workers have a wage rate just above the new minimum wage (between the new minimum wage and 115 percent of the new minimum). They will receive a raise as employer pay scales are adjusted upward to reflect the new minimum wage. The last two columns show what share of the workforce subgroup is affected, and that subgroup's share of all affected workers. So for example, it shows that 26.7% of working women are affected, and that working women constitute 58.3% of all affected workers.

Source: Economic Policy Institute Minimum Wage Simulation Model using data from the Census Bureau, Bureau of Labor Statistics, and Congressional Budget Office. See David Cooper, Zane Mokhiber, and Ben Zipperer, *Minimum Wage Simulation Model Technical Methodology*, February 2019.

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(Cooper, 2017)

Appendix D

National estimates for Retail Salespersons:
 Employment estimate and mean wage estimates for Retail Salespersons:

Employment (1)	Employment RSE (3)	Mean hourly wage	Mean annual wage (2)	Wage RSE (3)
3,693,490	0.3 %	\$ 15.35	\$ 31,920	0.2 %

Percentile wage estimates for Retail Salespersons:

Percentile	10%	25%	50% (Median)	75%	90%
Hourly Wage	\$ 10.50	\$ 11.30	\$ 14.00	\$ 16.88	\$ 21.85
Annual Wage (2)	\$ 21,840	\$ 23,500	\$ 29,120	\$ 35,110	\$ 45,460

Industry profile for Retail Salespersons:
 Industries with the highest published employment and wages for Retail Salespersons are provided. For a list of all industries with employment in Retail Salespersons, see the [Create Customized Tables](#) function.

Industries with the highest levels of employment in Retail Salespersons:

Industry	Employment (1)	Percent of industry employment	Hourly mean wage	Annual mean wage (2)
General Merchandise Stores	708,760	22.98	\$ 13.88	\$ 28,870
Clothing Stores	474,450	62.40	\$ 13.20	\$ 27,450
Building Material and Supplies Dealers	462,020	37.04	\$ 15.86	\$ 32,980
Sporting Goods, Hobby, and Musical Instrument Stores	250,720	54.67	\$ 13.93	\$ 28,960
Automobile Dealers	233,420	19.13	\$ 24.62	\$ 51,210

Industries with the highest concentration of employment in Retail Salespersons:

Industry	Employment (1)	Percent of industry employment	Hourly mean wage	Annual mean wage (2)
Shoe Stores	115,260	70.23	\$ 12.83	\$ 26,690
Clothing Stores	474,450	62.40	\$ 13.20	\$ 27,450
Jewelry, Luggage, and Leather Goods Stores	58,650	54.86	\$ 16.98	\$ 35,320
Sporting Goods, Hobby, and Musical Instrument Stores	250,720	54.67	\$ 13.93	\$ 28,960
Book Stores and News Dealers	29,480	54.30	\$ 12.62	\$ 26,250

Top paying industries for Retail Salespersons:

Industry	Employment (1)	Percent of industry employment	Hourly mean wage	Annual mean wage (2)
Support Activities for Air Transportation	80	0.04	\$ 34.02	\$ 70,760
Automotive Equipment Rental and Leasing	910	0.51	\$ 29.13	\$ 60,590
Business Schools and Computer and Management Training	(8)	(8)	\$ 28.51	\$ 59,310
Truck Transportation	200	0.01	\$ 27.11	\$ 56,390
Securities, Commodity Contracts, and Other Financial Investments and Related Activities	(8)	(8)	\$ 27.00	\$ 56,160

(U.S. Bureau of Labor Statistics, 2021)

Appendix E

Educational attainment	Median usual weekly earnings	Unemployment rate
Doctoral degree	\$1,885	2.5%
Professional degree	1,893	3.1
Master's degree	1,545	4.1
Bachelor's degree	1,305	5.5
Associate degree	938	7.1
Some college, no degree	877	8.3
High school diploma, no college	781	9.0
Less than a high school diploma	619	11.7

Note: Data are for persons age 25 and over. Earnings are for full-time wage and salary workers.
Source: U.S. Bureau of Labor Statistics, Current Population Survey.

(Torpey, 2021)