Effects of Raising the Minimum Wage on Employment & Public Benefits

Prepared for the Federal Reserve Bank of Atlanta
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Florida constituents voted to approve Amendment 2 on November 3, 2020, which will increase the state minimum wage to $10.00 per hour from $8.65 come September 2021. Every September following, the minimum wage will incrementally increase by $1.00 per hour until 2026 when the wage reaches $15.00 per hour. AERG will be conducting an economic evaluation that considers the dynamic impacts caused by the new legislation to understand the potential impacts on employment and state-subsidized programs.

Methodology

Our approach will begin with an evaluation of prior literature sources that have estimated a variety of wage elasticities on employment. The aggregation of these estimates will be used to synthesize a low, medium, and high range of wage elasticities that will be appropriate for Florida. Common estimates range from -0.09 to -0.22 which will be the low and high threshold values and the midway point of -0.16 will be the median.

Practically speaking, a 10% increase in the minimum wage would be associated with a decrease in employment by either 0.9%, 1.6%, or 2.2%.

Following our evaluation of employment, we isolate wage demographics within Florida’s population to identify those most impacted by the new legislation. Integrated Public Microdata Series (IPUMS) data provides key information at the state level to identify workers who, as of 2019, make less than $15 an hour.
Figure 1 illustrates the percentage of Floridians within key wage brackets, about 35% of the Florida workers make less than $15 per hour – the largest bracket of workers earning within the $10 to $15 per hour range.

Subsequently, we consider the loss of public benefits and establish eligibility criteria for Federal and State public assistance programs that focus on health care, nutrition, housing, and child-care subsidies to examine the effects of benefits cliffs.

Ultimately, we look at a case study to consider the trade-offs associated with changes to a family’s net financial resources such as reduction of hours, distorted incentives for career advancement, and loss of employment – this highlights the magnitude of the impact of the benefits cliff as the minimum wage increases.

**Results**

Our estimates indicate that the number of jobs in the Florida labor market will decrease by about 114,000 to 285,000 from September 2021 till September 2026, per our wage elasticity levels. As many as 1.7% to 5.6% of Florida households may be impacted by the effects of a benefits cliff following the wage increase. Our estimates examine those within the poverty level brackets of varying cutoff points for the respective public assistance programs analyzed throughout the report.
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Introduction

Understanding the effects of the minimum wage increase is a multifaceted topic that has been popular in economics. Capturing the full effect of minimum wage changes requires an evaluation of labor markets, business incentives, tax revenue, government expenditures, income, education, career advancement, and public assistance programs to provide a glimpse into the total effects. Within this paper, we will assess the increase in the minimum wage in Florida proposed by Amendment 2 with respect to the impact on overall employment and the impact on Floridians enrolled in public assistance programs.

Our approach is structured by starting with an evaluation of prior literature that estimates employment elasticity; we will utilize an aggregation of these estimates to synthesize a wage elasticity appropriate for Florida. We then develop wage elasticities in range of low, medium, and high scenarios to consider the dynamic fluctuations in employment and demonstrate those most heavily impacted. Additional consideration of key demographics within the Florida population will optimize our analysis and provide insight into exploring the facet of the minimum wage increase that pertains to its impact on major Federal and State public assistance programs to capture an understanding of what challenges face Floridian families in poverty. Finally, we will apply both aspects of what we have observed to illustrate a case study that explains the relationship between the minimum wage increase and economic self-sufficiency.
Florida State Legislators 2021

Governor Ron DeSantis
Ron DeSantis took office January 8th, 2019, as the 46th Governor of Florida.

Senators Marco Rubio
Marco Rubio has been serving as a Senator of Florida since 2011.

Senator Rick Scott
Senator Rick Scott, the 45th Governor of Florida from 2011-2019, was inaugurated in 2019.
History of Minimum Wage Laws in Florida

Before 2005, the minimum wage in Florida was largely based on the Federal minimum wage. In late 2004, the minimum wage law was initially enacted and set to take into effect on May 2, 2005\(^1\) – this wage increased the federal minimum wage standard of $5.15 per hour by a dollar. However, those efforts to get ahead of the federal minimum wage were halted in July 2009 due to the impact of the Great Recession, and the Florida minimum wage was set at the same Federal rate level of $7.25. The stagnant trend lasted until 2011 when the calculation of the Florida Agency for Workforce Innovation was challenged based on their 2010 estimate to decrease the minimum wage\(^2\). The legal ruling required that the minimum wage be adjusted for inflation based on the consumer price index and recalculated the 2011 minimum wage. The minimum wage increase went up by six cents from the federal standard. Thereafter the decade following the wage increased by an average of 2% as shown in Table 1.

 Amendment 2 shifts the pace of the past decade, debates to increase the minimum wage are a hot topic for discussion and have increased the popularity of the $15 per hour wage. In Florida, about 61% of voters supported the amendment\(^3\), passing the required supermajority vote. The first major increase by the legislation from $8.65 to $10 an hour presents about a 16% change within the year of 2021. Aside from the first initial increase of the minimum wage in 2005 – this is the second-largest year-over-year change. It is also worth noting that after the first increase in 2021, the increases that follow also increase dramatically – averaging about an 8% increase annually compared to the 2% increase of the past decade.

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Figure 2 graphically outlines the shift in the trend line from the beginning of the inception of the minimum wage law to the new increases.

![Minimum Wage in FL](image)

Figure 2 Source - Florida Department of Economic Opportunity

**Literature Review**

Before the era of “New Minimum Wage Research”, the Minimum Wage Study Commission issued the findings of Charles Brown, Curtis Gilroy, and Andrew Kohen⁴ (1982) on the U.S. teenage employment. The negative effect minimum wage had on employment not only became the dominant view but established a consensus range of the employment elasticity, -0.3 to -0.1, this was at a time when the federal minimum wage increased steadily

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over time\(^5\). From 1981 to 1990, the federal minimum wage remained stagnant, incentivizing an increasing number of states to enact state-specific minimum wages above the federal rate – the consensus was short-lived after this decade. Not only did the debate surrounding the minimum wage catapult but stimulated a plethora of research on the effects on employment using various approaches. The following literature review will be to provide a quick summary of key contentions and development on minimum wage research.

**New Minimum Wage Research (NMWR)**

*Pre-2000s*

The *Industrial and Labor Relations Review* (ILRR) symposium of October 1992 included four noteworthy publications on new minimum wage research that produced a variety of effects. One of which included the work of Katz and Krueger’s (1992)\(^6\) that looked at the effects of an increase in the federal minimum wage for fast-food workers in Texas. Card (1992)\(^7\) focused on the 1989 California minimum wage. Both papers set the foundation for a


noteworthy study by Card and Krugler (1993)\(^8\), who utilized a natural experiment to apply a difference-in-difference technique to look at the effects on U.S. teenage employment of fast-food workers in New Jersey and Pennsylvania. The minimum wage increased about 19% for New Jersey, while Pennsylvania did not experience the increase – serving as the control group. The results of the study indicated a positive effect between increasing the minimum wage and employment. For example, there was a positive increase in employment for New Jersey stores from February to November than stores that initially paid higher wages – contradicting the earlier consensus.

In another study, Neumark and Wascher (1992)\(^9\) used state-level panel data with a time-series variation component to estimate the employment change in two groups of age demographics, teenagers (16 – 19 years old) and the broader youth population (16 – 24 years old). The methodology applied the Kaitz index that had been utilized in prior NWMR but incorporated minimum wages that were higher in states than the federal rate. They estimated elasticities that had a similar range supporting the earlier consensus – teenage wage elasticity ranged from -0.10 to -0.20 and a range of -0.15 to -0.20 for the broader youth population.

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Since the 2000s

The focus of our review is on three studies that report on the employment effects of the minimum wage published after 2000 – we will consider the conceptual or empirical issues within the research proposed by these papers. Neumark and Wascher (2006)\textsuperscript{10}, Doucouliagos and Stanley (2009)\textsuperscript{11}, and Wolfson and Belman (2016)\textsuperscript{12}, provide comprehensive reviews on the literature that consider a wide range of existing estimates. We also review recent empirical studies and provide a summary of those estimates. The NMWR estimates lack consensus that makes it even more difficult to determine what conclusions can be drawn about the impact of the minimum wage.

Neumark and Wascher (2006) approach the review traditionally, seeking to regard the quality of research as a basis for selecting credible estimates. The studies reviewed are subsequent research that followed the work of Card and Kruger (1994) and Neumark and Wascher (1992), which led to the production of a variety of estimates due to altering methods

\begin{thebibliography}{99}


\end{thebibliography}
or approaches. Table 2 and Table 3 outline relevant estimates that are grouped by demographic age groups, studies that are viewed to be “more reliable” by Neumark and Wascher have been highlighted.

<table>
<thead>
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<th>Study</th>
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<th>High</th>
<th>Group</th>
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<td>Williams and Mills</td>
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<td>Bazen and Marinou</td>
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<td>Teenagers</td>
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<td>-0.18</td>
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</table>

*Table 2 NMWR Estimates for Teenagers*

<table>
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<th>Year</th>
<th>Low</th>
<th>High</th>
<th>Group</th>
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<td>Keil et al.</td>
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<td>Neumark and Wascher</td>
<td>2002</td>
<td>-0.13</td>
<td>-0.21</td>
<td>Youth population</td>
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</tbody>
</table>

*Table 3 NMWR Estimates for Youth Population*

The assessment of Burkhauser et al. (2000b) re-examines the data in the minimum wage specification by Card and Kruger (1994) and uses a pooled, time-series, cross-sectional approach with an equation in which the wage variable is expressed in nominal terms.

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Neumark and Wascher (2006) criticize this because using this technique with a longer sample period may bring about violations on homogeneity assumptions and the potential reduction in the effect of employment due to the erosion in the real value of the minimum wage. A key aspect is how they measure year effects; Card and Kruger (1995) use a minimum wage and individual year controls while Burkhauser et al. (2000) excludes the year effects. Burkhauser et al. (2000) claim that including the year would estimate a marginal effect rather than a direct effect. However, this approach may be problematic because the coefficients could capture other macroeconomic influences. Neumark and Wascher (2006) found these estimates that exclude year effects as “less convincing” due to that reason. Sabia (2006) approaches the method laid out by Burkhauser et al. (2000) and re-estimates with a longer time period (1979 to 2004) to understand the impact of year effects. It was found that including a dummy for year effects results in a greater variation of the minimum wage, without a year dummy the employment elasticity is -0.18 and decreases further to -0.30 with a year dummy included. Thus, it would be an issue to exclude year effects.

The Zavodny (2000)\textsuperscript{15} study decided to include the effect on hours of work along with employment—this perspective brought new insight, claiming that the fluctuation in hours of work could vary despite the increase to minimum wage. The findings of this study showed that the estimated effects of the minimum wage are conditional on employment and can be close to zero. Thus, it is possible that employers did not reduce hours in response to a higher wage. Additionally, Zavodny calculates an implicit wage gap by the amount needed for a worker’s wage to be increased to the new minimum and then regresses based on employment the year after the change and weekly hours and finds that a worker’s, who is affected by the wage increase, probability of remaining employed is reduced. This highlights the potential trade-off employers will make due to an increase in the minimum wage like a reliance on automation, however, does not capture the likelihood in the transition of part-time or full-time workers. Those who remain employed after the wage increase have an increase in the average hours worked; this is important to consider the income changes with respect to the benefits cliff – which we will touch on later in this paper.

Another study examined, Couch and Wittenburg (2001)\textsuperscript{16} find an opposite effect, both employment and total hours are reduced by the minimum wage increase. However, this study excludes year effects, which Neumark and Wascher caution against doing as an approach and thus, not reliable. Williams and Mills (2001)\textsuperscript{17} re-examines Card and Krueger (1995) and address nonstationarity in the data by applying an Augmented Dickey-Fuller test to find unit roots in the data – the estimates from the standard specifications were found to be inconsistent.

By applying a vector autoregression model with separate equations for employment, the change in the Kaitz index, and each of the control variables to ensure stationarity, they find that there is an immediate negative effect. To address the specification using a time-series approach, Bazen and Marimoutou (2002)\textsuperscript{18} apply stochastic specification\textsuperscript{19} and find that this model exhibits greater parameter stability, better forecasting performance, and the effect of

\begin{thebibliography}{9}


\bibitem{19} Trend, seasonal, and cyclical components.
\end{thebibliography}
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the minimum wage have been constant over time. Neumark and Wascher state that a time-series study is less relevant given the increase in the state minimum wages.

Applying a lagged term was a method employed by Keil et al. (2001)\textsuperscript{20} which altered the employment equation specification to include a lag on the dependent variable instead of the minimum wage term. This brought a new insight; a minimum wage increase may have repercussions that occur longer than expected – using a lag effect may potentially capture these effects. Kiel et al. found that lags do matter, gradual effects become another component that is important when assessing not only the overall effects of a minimum wage increase but their effect also on the benefits cliff.

Despite the range in elasticities, Neumark and Wascher (2006) stand by the assertion that NMWR supports the traditional view of the minimum wage effect on employment, 85% of the studies (28 out of 33) included in this review point to a negative relationship. Additionally, they find a connection between longer panel studies that include both state and time variation and the negative and statistically significant employment effects from increases in the minimum wage, the opposite is true for shorter panel studies. They initially critique the use of a meta-analysis because the theory in each study does not provide uniform predictions,

however, they also suggest using meta-analysis techniques to provide complementary evidence for their review.

**Meta-Studies**

It has been over a decade since the estimates reviewed by Neumark and Wascher (2006) were established. A differing approach was taken by Doucouliagos and Stanley (2009), who apply a meta-study method on 64 studies – almost double that of Neumark and Wascher. The key in this method is that it provides a systematic review of the estimates to synthesize an understanding of the existing research while accounting specification choices in the model and potential heterogeneity issues. Doucouliagos and Stanley replicate Card and Krueger’s approach and employ meta-analytic modeling to differentiate genuine empirical effects from publication selection bias. To understand the distribution of the elasticities across studies, *Figure 3* shows a funnel plot that creates a scatter diagram over 1,000 data points (various studies reported multiple estimates) by its statistical precision which is the inverse of the standard error of that estimate. A majority of the most precise estimates are clustered near zero and a large deviation could hint at the strength of publication bias.
To build the different estimation models, they parse out the elasticities of all the studies under consideration into two groups. The “best-set” is made up of only one estimate in each study, it is the estimate that is preferred by the author(s). The “all-set” are all the reported employment estimates in the studies. The sets of data each undergo analysis using an ordinary least squares regression, a robust regression, a clustered data analysis, and a random-effects multilevel model (REML). The multi-level models are preferred as they can control for publication selection bias, which involves estimates from the same author in multiple studies or within-study dependency. When comparing the values across the same model but different
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data sets, the “all-set” has a minimal effect of -0.1 which Doucouliagos and Stanley conclude that there is “no practical relevance” assuming that estimate is true, a 1% decrease in teenage employment has no meaningful policy implications. It is important to note that when removing the effects from the impact of publication selection bias, there is little to no evidence of a large negative employment elasticity and implies a null effect. The overall conclusion lends support to the results of Card and Krueger (1994) which also diverge from the conclusion drawn from Neumark and Wascher (2006) that support the traditional view of minimum wage on employment.

Wolfson and Belman (2016) support the use of a meta-analysis technique to develop a consensus in an estimate of employment elasticity because it provides a reproducible and disciplined method that addresses heteroscedasticity, heterogeneity, and publication selection bias. Expanding upon Doucouliagos and Stanley (2009), they include “all-set” and “best-set” estimates and develop an “average-set” estimate which is the average of about 736 estimates from 37 studies. The studies differentiate by how they control for heterogeneity, Doucouliagos and Stanley (2009) remove variables that are not conventional standards of statistical significance while Wolfson and Belman (2016) make that case that these same variables are multi-collinear and employ a LASSO regression on both response and treatment variables. Their criterion for variable selection depends on the variables that appear in either set of the double LASSO results. However, they acknowledge that accounting for all variables in a
regression is not feasible, thus making the criteria of deciding which variables are removed can present bias even if the criteria are arbitrary. Overall, they produce 8 different meta-regressions, half of which exclude study-fixed effects and the other half includes those effects. The LASSO meta-estimates for teenage employment ranges from -0.08 to -0.11, which is in line with the traditional estimates. Within this analysis, controlling for publication bias pulls estimates lower, however, the difference is so small that Wolfson and Belman find it to be trivial.

**Recent Empirical Review**

Arindrajit Dube, T. William Lester, and Michael Reich (2010)\(^\text{21}\) attempt to use policy breaks at state borders to determine the true effect of minimum wage on earnings and employment. They do this by finding contiguous county pairs that straddle a state border, this helps to account for existing local conditions that are not considered in traditional literature; conditions which they believe lead to “spurious negative effects due to spatial heterogeneities in employment trends that are unrelated to minimum wage policies”. Using this method, they essentially create their own natural experiment and replicate Card and Kruger’s (1994)

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study many times across different U.S. counties. Previous literature fails to account for regional differences in employment unrelated to the minimum wage -- they find this strong evidence towards earnings effects, and no evidence of employment effects because of minimum wage increases. The main idea is that employment growth varies across the nation, for example, in a region that is mainly rural like the South, employment grows rapidly while wages remain relatively low whereas slower employment growth tends to be in urban areas like the Northeast.

Figure 4 Source - Dube, Lester, and Reich (2010)
However, in their conclusion, they caution extrapolating this result to minimum wage increases that are significantly larger than the ones they observe across state lines, which in these cases was far less than the increase considered in the scope of our study. For example, many of the counties they observe had a small difference in minimum wage between the two states, for the most part, less than $3.00. In contrast, Florida in 2026 will have a minimum wage that is more than double our neighbor Alabama. With this methodology, it is highly unlikely that their findings would remain the same when applied to our situation in Florida.

In a more recent study by Cengiz, Dube, Lindner, and Zipperer (2019) use a difference-in-difference approach with data from 138 state-level minimum wage changes from 1979 to 2016 to estimate the effect of minimum wage on low wage jobs. They find that the overall amount of low-wage jobs remained unchanged in the five years following the wage increase. To find these effects they use a “wage bucket” strategy like the one in our own paper, and sort jobs into one-dollar buckets relative to the wage change for three years prior and five years following. Then the difference in changes in employment can be taken between these bins. They also find no evidence of disemployment to high-wage workers, which is why for the purposes of our analysis we examine only workers clustered around the old and new

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minimum wages. Across the eight different specifications of their regression models, the elasticity ranges for division-specific wage-bin effects are small from zero to -0.02.

Figure 5 illustrated the findings from their analysis. What they find is a sharp and significant decrease in the number of jobs around the wage bin about $1 below the new minimum wage. However, they observe an equally large and significant increase at the $0 bin, the new minimum wage, that compensates for the initial drop. They also find statistically significant increases to jobs in the $1, $2, and $3 wage bins above the new minimum wage. Overall, they find a net positive effect on employment predicting a 2.8% (2.9% std. err) increase in jobs, although this effect is statistically insignificant. Regarding elasticities, they cite Neumark and
Wascher (2008) as evidence that the elasticity of many low-wage workers falls between 0.00 and -0.30 – in line with the traditional consensus range.

Dube (2019) attempts to address the lack of knowledge regarding how increases in the minimum wage impact family incomes. He correctly states that much of the prior literature only addresses how individuals are impacted, with these studies only accounting for how a specific individual with a specific elasticity might respond. Dube uses CPS data from 1984 to 2013 with a three-year lag to adjust for parallel trends. His findings suggest that there is significant evidence that higher minimum wages increase family incomes at the bottom of the income distribution. He does concede that this may cause families around certain poverty thresholds to lose their subsidized benefits. Dube concludes that the wage elasticity based on the long-term effects is between -0.22 and -0.46. This is in line with the traditional scope of values presented in other literature.

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Elasticity Selection

Our literature review considers various studies that estimate the employment effects due to the increase in the minimum wage. NMWR from the early 2000s supports the traditional consensus for employment elasticities, late 2000s meta-analysis suggests almost a null effect, and studies over the past 5 years show that same variation. Most of the estimates from the literature are inline or within the range of the traditional estimates of -0.1 and -0.3, however, we will consider estimates that have a much smaller negative effect as there is a considerable amount of recent literature that supports that view. To encompass the variety of estimates and reflect the over 40 years of research on this topic, our choice of elasticity for the low end of the range is -0.09, the median estimate is -0.16, and on the high-end, the elasticity is -0.22. Table 4 includes the estimates we considered to impact our elasticity range.

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Table 4 Summary of Elasticity Selection
Affected Florida Population

Data Sources

For the consideration of this project, we relied heavily on three main sources for our demographic, employment, and wage data. We used the American Communities Survey (ACS) 2019, the Bureau of Labor Statistics, and the "Integrated Public Use Microdata Series" IPUMS. Also considered were sources like The Office of Economic and Demographic Research (EDR), the Federal Reserve Bank of St. Louis, the Federal Reserve Bank of Atlanta, as well as other sources from the Census Bureau like the Population Estimates Program (PEP).

The decision to use American Communities Survey (ACS) 2019 for most of our demographic data was for two main reasons. First, it was the most recent data available from the Census Bureau as the ACS 2020 will not be released until September 23, 2021. Second, we decided to avoid data sources where possible from 2020 due to the effects of the COVID-19 pandemic.
IPUMS was used to create our distribution of Florida wages, as well as our estimates for expected job loss due to the wage increase of Amendment Two. IPUMS itself uses sample data from the ACS to create its data sets, however using this tool allows us to control for factors not captured by other sources. For example, many other sources do not report wages of workers below the minimum wage like agricultural workers. They may be incorrectly lumped into the “minimum wage worker” bucket for lack of a better designation, which could cause us to overestimate effects on that particular population.
Florida Demographics Profile

The demographics of the state of Florida in terms of population, age, race, etcetera will help get a better picture of the residents potentially experiencing the effects of the minimum wage increase. Then we will investigate the poverty and income snapshots of Florida to understand the amount of the population receiving public assistance benefits. For the purposes of this research paper, all demographic and wage data come from the One Year American Communities Survey 2019, and the Census Bureau unless otherwise noted.

Population

In 2019, Florida was the 3rd most populous state in the United States with over 21,500,000 full-time residents. Since 2015, Florida’s population has steadily grown by over a million people, keeping pace with Texas and California growth rates.

![Population by State](image)

*Figure 6 Source - U.S. Census Bureau*
**Age**

Florida has the largest community of residents over the age of 65 in the Nation, with about 21% of the population over the age of 65. The percent of the population over the age of 65 as shown in Figure 8, Florida is second only to Maine. Due to this large retirement community, Florida’s median age is about 42.4 years, about 10% higher than the national average of 38.5 years. This is important to consider in our analysis of the impact of the wage increase, as an older population may not be as widely affected by changes made in the workplace due to retirement or disability factors removing them from workplace settings.

**Florida Age Distribution**

*Figure 7 Source - IPUMS 2019 (ACS)*

**Florida Age Proportion**

*Figure 8 Source - IPUMS 2019 (ACS)*
**Race**

Florida has one of the most ethnically and racially diverse population profiles in the Nation. Florida is composed of about 53% White, 26.4% Hispanic, 15.2% Black, 2.7% Asian, 2% as two or more races, and very small populations of Native Americans, Pacific Islanders, and other races making up less than 1% of the total population.

Florida by population possesses the third-largest Hispanic community in the nation, again behind only California and Texas. It is important to consider the racial composition of the state when looking into those receiving public assistance benefits, as it gives us more insight into largely affected individuals. *Figure 9* above offers a graphic of the Florida population makeup.

*Figure 9 Source - IPUMS 2019 (ACS)*
Households

The average household in Florida consists of about 2.65 persons, according to the American Communities Survey conducted in 2019. For the scope of this project, we chose to focus on households around this size and makeup. This focus includes but is not limited to approximately three-person households of single parents with one to two children or married couples with one to two children, etcetera. At a glance, Figure 10, shows about 50% of households have either 2 or 3 household members, this is important to consider when applying the eligibility requirements for public assistance programs.

Floridian Household Size Breakdown

Figure 10 Source - IPUMS 2019 (ACS)
Poverty

With regards to poverty, about 12.7% of Floridians fall below 100% of the Federal poverty line. This is higher than the national average of about 10.5% in 2019. Poverty status varies depending on household size. For example, a household of one is considered below the poverty line at an income of $12,760, while a household of two is below the poverty line at an income of $17,240, etcetera. The ACS 2019 estimates that about 180,000 households’ incomes are at 50% of the poverty level and about 625,000 at 125% of the poverty level. The ACS also estimates that there are about 4 million Floridian families below 200% of the poverty line – the eligibility cutoff for many public assistance benefits. See the data below for more details regarding the federal poverty line and poverty statistics in Florida.

Figure 11 Source - U.S Census Bureau
**Income**

In 2018, Florida ranked 38th in median household income among all U.S. territories and states with a median household income of $55,462. In 2019, this value increased to a median household income of $59,227. This is about 10% less than the national average of $65,712. For a family of three in Florida, this would be about 250% of the Federal Poverty Level. Additionally, in 2019 Florida per capita income was about $32,887 – also roughly 250% of the federal poverty level. Parallelly, this is about 10% lower than the U.S. mean per capita income of about $35,672. *Figure 12* displays the Florida income distribution.

*Figure 12 Source - IPUMS 2019 (ACS)*
Florida was hit very hard by the burst of the housing bubble in 2007 and the subsequent recession. Only since 2019 has the median family income recovered to what it was before the Great Recession. This can be seen in Figure 13 as a sharper decline from around 2007 to 2009 than what the rest of the nation on average suffered; however, Florida has rebounded well and kept pace with the recovery of the rest of the nation. This is likely largely attributed to a yearly indexed minimum wage – a recovery feature missing from many other states in the southeast.

*Figure 13 Source - IPUMS 2019 (ACS)*
Data Analysis

To begin the analysis, the 2019 data from IPUMS undergoes configuration to improve data quality. When filtering for the state of Florida, there are 205,294 observations which represent about 1% of the 21.5 million Florida population. However, our data needs to be explored further to capture the essence of people who will be affected by the change in the minimum wage. Other filters included isolating respondents that are in the labor force, employed, work 30 to 80 hours a week, and are 14 to 67 years old -- this will capture an estimate of the working population of Florida – resulting in a subset of 68,003 observations. About 33% of the initial sample will be our data set. Compared to the Florida population, our findings will be presented as percentages to maintain relative precision as actual counts will not accurately capture the magnitude of impact on Florida workers.
Using STATA, we developed wage brackets to understand the breakdown of Floridian workers in 2019 who make less than $15 an hour. Within our data sample, 35% of all Florida workers make less than $15 an hour. *Figure 14* shows the distribution of all workers. The largest wage bracket, about 20%, is composed of Florida workers who earn $10 to $15 an hour — which implies that a relative majority of the working Florida population will be impacted by the legislation for the next 5 years.
Figure 15 looks closer into the distribution of those who earn less than $15 per hour.

The first proposed increase will be affecting almost half of workers who make less than $15 per hour, it’s also important to mention that the first proposed increase is also the largest wage increase, from $8.65 to $10, which is about a 17% increase. Thus, that first shock will not only be the largest but affect the largest group of earns that make less than $15 per hour.

In 2022, the wage increase from ten to eleven dollars per hour is 10% and then 8% of workers earning less than $15 an hour will be included additionally to the number of Floridians impacted. The same structure can apply to the changes that follow from 2023 till 2026.
Effects of Raising the Minimum Wage on Employment & Public Benefits

<table>
<thead>
<tr>
<th>Year</th>
<th>Proposed Minimum Wage</th>
<th>Workers Earning Less than the Proposed Minimum Wage</th>
<th>Additional Floridians Impacted</th>
</tr>
</thead>
<tbody>
<tr>
<td>2021</td>
<td>$10 per hour</td>
<td>1,699,768</td>
<td>1,699,768</td>
</tr>
<tr>
<td>2022</td>
<td>$11 per hour</td>
<td>1,997,011</td>
<td>297,243</td>
</tr>
<tr>
<td>2023</td>
<td>$12 per hour</td>
<td>2,325,446</td>
<td>328,435</td>
</tr>
<tr>
<td>2024</td>
<td>$13 per hour</td>
<td>2,842,109</td>
<td>516,663</td>
</tr>
<tr>
<td>2025</td>
<td>$14 per hour</td>
<td>3,162,514</td>
<td>320,405</td>
</tr>
<tr>
<td>2026</td>
<td>$15 per hour</td>
<td>3,691,221</td>
<td>528,707</td>
</tr>
</tbody>
</table>

Table 5: Source - IPUMS 2019 Data

Shown in Table 5, we calculate the proportion of those affected relative to the Florida labor force, which is about 10.5 million. As stated previously about 35% of Florida workers earn below $15, this would equate to about 3.7 million workers that fall within the $10 to $15 wage bracket. Those who earn less than $10 per hour and almost 1.7 million workers earn less than $10 per hour. The greatest shock to employment loss will occur within the first change, not only is the largest jump in wages but it impacts a larger number of Floridian workers. However, about 1 million of those workers that make less than $10 an hour, are even earning less than the minimum wage of $8.65 per hour. Potential explanations, assuming the reports of income are correct, these workers are paid “under the table”, undocumented, or work in an industry that has lower minimum wages like the agriculture sector.
It would be naïve to consider only those that fall within the wage brackets ($10 to $15 per hour) that will be impacted by the increase, workers that earn right above the proposed minimum wage can be potentially impacted indirectly. Let’s suppose a new worker is hired under the new wage of $15 an hour, what impact does this have on workers that are already in the same position but have longer tenure or workers that are in a higher position that makes that same wage? It is possible that those who earn directly above the minimum wage run the risk of experiencing a decrease in income if they decide to leave their position because someone who recently joins the company earns nearly the same amount as a worker who has been there for a while. From the perspective of the company, it is possible to increase that employee’s wage but could also have an incentive to forego annual raises or bonuses.
Effects of Raising the Minimum Wage on Employment & Public Benefits

Employment Effects

The magnitude of the employment loss will be the elasticity estimate with the change in wage. For example, the low elasticity estimate -0.09 is multiplied by the percentage change of the wage change in 2021, 16.8% (proposed wage increase from $8.65 to $10 per hour). This equates to a -1.51% loss in employment due to the increase in wage for that year. For each year that follows, the magnitude changes depending on the percentage change for the newly proposed increase, which for 2022 is a 10% increase in wage so the magnitude would be -0.90%. However, we must also consider that the affected workers for 2022 will not only be those that fall within that wage bucket but also the year before so we will also deduct the employment loss of 2021 to take into consideration the overall impact. After 2026, the minimum wage will be adjusted for inflation for the years that follow. Table 6 are the estimates for employment loss over time of the proposed amendment.

<table>
<thead>
<tr>
<th>Elasticity Estimate</th>
<th>2021</th>
<th>2022</th>
<th>2023</th>
<th>2024</th>
<th>2025</th>
<th>2026</th>
<th>Average</th>
<th>Sum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low: -0.09</td>
<td>-25,735</td>
<td>-15,066</td>
<td>-16,216</td>
<td>-17,319</td>
<td>-19,556</td>
<td>-20,205</td>
<td>-19,016</td>
<td>-114,097</td>
</tr>
<tr>
<td>Medium: -0.16</td>
<td>-44,321</td>
<td>-27,033</td>
<td>-28,521</td>
<td>-30,405</td>
<td>-34,249</td>
<td>-35,393</td>
<td>-33,320</td>
<td>-199,922</td>
</tr>
</tbody>
</table>

*Table 6 Employment Loss Estimates in Florida*
Benefits Cliff

The Basics of Program Eligibility

Government subsidies for many Florida programs are determined by three main factors: gross monthly income, net income, and assets. Household income for many programs must be at or below 130% of the federal poverty line to be eligible to receive benefits, however, this limit can reach up to 200% of the federal poverty line for certain programs. Additionally, total assets are taken into consideration when determining eligibility. For example, to qualify for Supplemental Nutrition Assistance Program (SNAP, formerly known as Food Stamps), assets in a family without an elderly member must be below $2,250, and for families with an elderly member, assets must be below $3,500.

This is just one example of the ways in which public assistance eligibility is determined. We will examine the details of such programs and their eligibility requirements to better understand their financial impact on both the state of Florida and the individual Florida resident working for minimum wage facing the threat of benefits cliffs as income increases. Finally, we will look at major programs with wide ranges of participants and estimate how much of the Florida population could be at risk of hitting respective benefits cliffs as the minimum wage rises.
What is the Benefits Cliff?

With respect to the issue at hand, a benefits cliff describes a common scenario in the United States in which career advancement puts a family at risk to lose the benefits of certain public assistance programs. When a family’s aggregate wages increase, they stand to cross the eligibility threshold for such programs. When a family loses the value of these programs due to career advancement or wage increase, there is a chance they end up financially worse off due to a benefits cliff or financially no better off due to a benefits plateau. The presence of a benefits cliff signifies a sudden decrease in annual net financial resources due to the loss of public benefits\(^\text{24}\).

To best understand the potential impact of benefits cliffs in the case of a minimum wage increase, it is important to understand the complexities of the programs at hand. In this section, we explore major public assistance programs and discuss their purposes, funding, spending, and eligibility requirements to encapsulate their respective impacts on low-wage workers as the minimum wage increases. We focus on programs with eligibility requirements based on maximum income levels permitted for participation.

<table>
<thead>
<tr>
<th>PUBLIC ASSISTANCE PROGRAMS</th>
</tr>
</thead>
<tbody>
<tr>
<td>HOUSING SUBSIDIES</td>
</tr>
<tr>
<td>NUTRITION PROGRAMS</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>HEALTHCARE PROGRAMS</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>CHILD-CARE SUBSIDIES</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>
1. Subsidized Childcare in Florida

*Functions and Participation*

Subsidized childcare in the state of Florida is one of the most important public assistance programs in our analysis, as it has one of the biggest impacts on the lives of low-income parents, but also has one of the sharpest benefits cliffs. The Florida School Readiness Program assists low-income parents throughout their children’s early education years with the goal of helping the parents work towards self-sufficiency while alleviating worries of their children’s future education success.

The program executes these goals by preparing young children to start kindergarten while helping families afford to continue enrolling their children in early learning services. This allows the parent to remain in the workforce or pursue additional education or work training to eventually reach financial independence.

The Division of Florida Early Learning estimates that a family with two young children earning $19,891 in annual income will spend up to 50 percent of their income on childcare without the assistance of School Readiness. With the program’s assistance, the family could spend as little as seven percent on childcare. In 2013-2014, Florida’s Office of Early Learning
reported Florida ranked third among all states in the number of children and families served in the school readiness program – 64% of these families received school readiness assistance while in the workforce. In 2019-2020, approximately 221,711 children benefited from school readiness from 6,932 different providers across the state of Florida

**Funding and Administration**

The School Readiness program is primarily funded by a federal Child Care and Development Fund Block Grant, but it is administered by the Office of Early Learning at the state level.

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26 See CCDF section for more details.
Eligibility and Cutoffs

Eligible recipients include:

- Recipients of temporary cash assistance who meet federal guidelines.
- Families with children at risk of abuse, neglect or abandonment.
- Parents with a verified homeless status.
- Parents who are victims of domestic violence.
- Working families with low incomes.
- Teenage parents.
- Low-income migrant families and farm workers.
- Families of children with disabilities and special needs.

In addition to these potential characteristics of recipients, the parent(s)/guardian(s) must be working or participating in a schooling activity such as college or trade school at least 20 hours a week. Their gross income must be at or below 150% of the federal poverty level for their respective family size and participating families must pay a copayment for childcare based on income and family size\textsuperscript{27}. For a family size of three, 150% of the federal poverty line is approximately $32,580 in annual income.

\textsuperscript{27} Florida Office of Early Learning.
2. Medicaid & CHIP

**Medicaid - Functions and Participation**

Medicaid is one of the more complex public assistance programs, as it is multifaceted with various eligibility levels and a broad scope of coverage. It is used to provide medical insurance to different groups of low-income individuals and individuals with disabilities. It is the nation’s public health insurance for families and individuals determined as low-income. Medicaid covers approximately 1 in 5 Americans, making it one of the most significant public assistance programs we consider in our analyses. Medicaid covers a variety of health services and limits enrollee out-of-pocket costs. It finances nearly a fifth of all personal health care spending in the U.S., providing financing for hospitals, community health centers, physicians, nursing homes, and jobs in the health care sector\(^{28}\). Closely related to the Medicaid program is the Children’s Health Insurance Program, or CHIP. CHIP covers low-income children above the poverty line and is often operated jointly with the state’s Medicaid program. We will go into more details on CHIP separately in the next sub-section.

Despite the significance of Medicaid in terms of costly expenditures and high participation rates, it is important to consider that much of the spending is allocated towards

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the elderly and disabled who are likely also enrolled in Medicare. This demographic is unlikely to be affected by the minimum wage shift. In Fiscal Year 2017-18, elderly and disabled Medicaid recipients accounted for approximately 17.79% of the total national caseload, but 53.42% of Medicaid spending. As of 2019, 19% of the Florida population was covered by Medicaid/CHIP (approximately 4.1 million individuals). 56% of these Medicaid recipients were working adults. That leaves us with about 2.3 million working individuals that stand to be impacted by the wage increase if they are working low-wage jobs.

**Medicaid - Funding and Administration**

Medicaid is funded at both the federal and state level. In the state of Florida, the Agency for Health Care Administration is responsible for the administration of Medicaid services. Additionally, the Florida Department of Children and Families and the Social Security Administration determine Medicaid eligibility. In the state of Florida, Medicaid accounts for approximately 31.7% of the state budget. In 2016, total Florida Medicaid expenditures amounted to approximately $21.8 billion – 60.9% paid by the federal...
government and the remaining 39.1% paid by the state. Medicaid costs about $5,090 per enrollee\(^{30}\).

**Florida Medicaid Eligibility**

<table>
<thead>
<tr>
<th>Population Category</th>
<th>Percentage of FPL(^{31})</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ages 0-1</td>
<td>206%</td>
</tr>
<tr>
<td>Ages 1-5</td>
<td>140%</td>
</tr>
<tr>
<td>Ages 6-18</td>
<td>133%</td>
</tr>
<tr>
<td>Separate CHIP</td>
<td>210%</td>
</tr>
<tr>
<td>Pregnant Women</td>
<td>191%</td>
</tr>
<tr>
<td>Adult Parents</td>
<td>27%</td>
</tr>
<tr>
<td>Childless Adults</td>
<td>Ineligible</td>
</tr>
</tbody>
</table>

*Table 7 Florida Medicaid*

Individuals potentially eligible for Family-Related Medicaid must be pregnant, be responsible for a child 18 years of age or younger, be blind or have a disability or a family member in the household with a disability or be 65 years of age or older. To obtain income-based eligibility for Medicaid, annual household income must satisfy the eligibility standards highlighted in *Table 7* above\(^{32}\).

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We utilize the Federal Reserve Bank of Atlanta’s analytical tools\textsuperscript{33}, shown on Figure 17, to observe how a single mother of two in the state of Florida experiences a benefits cliff for Adult Medicaid at the jump from $6,000 to $7,000 of annual employment income where the annual value of benefits decreases from about $3,042 to $0. This income range is at about 27\% of the federal poverty line for a family of three ($21,960). According to our data on Florida demographics, approximately 179,351 Florida households fall below 50\% of the federal poverty line and stand to be pushed over the Medicaid benefits cliff if they are on the lower end of this poverty level bracket and their minimum wage hours account for over $6,000 of

annual total income. Florida’s declination to adopt the Medicaid expansion for low-income adults is why this income cap is so low\textsuperscript{34}.

**Children’s Health Insurance Program (CHIP)**

**CHIP - Functions and Participation**

The CHIP Program is included under the umbrella of both Medicaid and Florida KidCare, as shown in *Figure 18*, CHIP is responsible for the MediKids, Healthy Kids, and Children’s Medical Services portion of KidCare and, according to Florida KidCare’s official website, provides aid to approximately 182,968 children, as of 2020\textsuperscript{35}. The goal of the CHIP program is to fill in the health coverage gap for children and families with incomes too high to qualify for Medicaid, but too low to afford private coverage. CHIP benefits cover medical needs from routine check-ups and immunizations to hospital care and emergency services.

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{Figure_18_Florida_KidCare_Funding.png}
\caption{Florida KidCare Funding}
\end{figure}

\textsuperscript{34} See section on Affordable Care Act section.

\textsuperscript{35} “Updated Applications, Eligibility Determinations, and Enrollment Data.” *Centers for Medicare and Medicaid Services*, 2020, data.medicaid.gov/Enrollment/2020-12-Updated-applications-eligibility-determina/v5h6-5gz2/data.
CHIP - Funding and Administration

In the state of Florida, the CHIP program is administered by three state agencies: AHCA, Department of Children and Families (DCF), and the Department of Health (DOH). The non-profit Florida Healthy Kids Corporation also offers administrative aid. CHIP is funded at both the federal and state levels of government. For FY 2019-2020, the federal share of funding was about $491,913,734 and the state share of funding was about $72,001,657.

CHIP - Eligibility and Cutoffs

CHIP eligibility is determined by the Florida Healthy Kids Corporation. For a family of three in the state of Florida, the annual total family income must not exceed 200% of the federal poverty line. This value equates to about $43,920 in annual total family income. For example, if a single mother of two earns more than the aforementioned amount in a given year, she would lose CHIP benefits for her children. A single mother working a full-time job could earn about $21.96/hour (if working approximately 2,000 hours in a year) and still remain just under maximum income level to remain eligible for benefits. However, if the family is

Effects of Raising the Minimum Wage on Employment & Public Benefits

composed of two parents and one child, the allotment of total hourly wage between the parents could be affected by the increase in minimum wage, leading to the family reaching the benefits cliff threshold and losing their CHIP benefits. In Florida, the ACS reports approximately 133,142 individuals living between 185% and 200% of the federal poverty level, putting them near the CHIP benefits cliff and at a higher risk of losing benefits if they or a member of their household contributing to annual income are working a minimum wage job\textsuperscript{37}.

3. Affordable Care Act (ACA) Impact

Functions and Participation

The Affordable Care Act, otherwise known as “Obamacare”, is a health care law that was signed on March 23, 2010. The law enables the purchase of health insurance through a system of health insurance exchanges, tax credits, and subsidies. A 2012 Supreme Court ruling made the Medicaid expansion voluntary for states. Under the ACA, Florida declined to expand its Medicaid program. Additionally, the ACA requires insurers to cover services within a standard set of benefits and prohibits coverage denials based on preexisting conditions.

\textsuperscript{37} See Appendix D for Florida poverty distribution.
Despite the state’s open opposition to the federal healthcare law, Florida has consistently had the highest number of sign-ups for individuals with ACA or Obamacare plans since 2015.

**Funding and Administration**

The Department of Health and Human Services (HHS) is responsible for overseeing the Marketplace established through the ACA. The healthcare exchange is federally run, so Florida residents enroll through a HealthCare.gov portal. ACA funding primarily comes from a series of imposed taxes that add to the federal revenue.

**Eligibility and Cutoffs**

Eligibility to participate in the healthcare Marketplace is different than participation in other public assistance programs we discuss. For example, a three-person household in Florida making less than about $21,960 in household income is unlikely to be eligible based on income alone. This is approximately $10.98 per hour in gross hourly wage when speaking of an estimated 2,000-hour work year. While their income will likely qualify for other welfare benefits, it falls below the range to qualify for Marketplace insurance plan savings. According to HealthCare.gov, a three-person household income ranging from $21,960 to $54,900 may qualify for a Marketplace plan with lower monthly premiums plus extra savings, such as lower
deductibles and copayments. Additionally, a three-person household with an annual income greater than $54,900 will likely benefit from lower monthly premiums\textsuperscript{38}.

4. Child Care & Development Fund (CCDF)

*Functions and Participation*

The CCDF program is utilized to offer subsidized childcare and provide resources to state, territories, and tribal grantees to assist low-income parents as they work, pursue their educations, or participate in training to better support their respective families. While offering support to parents, the CCDF also works to promote the learning and overall development of their children. Additionally, the CCDF program funding is allotted to enhance the quality of childcare for all children across the United States.

Following the signing of the Child Care and Development Block Grant into a law in November 2014, regulatory changes were made to the CCDF program to strengthen requirements to protect the health and safety of children in childcare, help parents make better-informed consumer choices, provide equal access to stable childcare for low-income

children, and enhance the quality of overall childcare. There are approximately 69,200 CCDF household enrollees.

**Funding and Administration**

In the state of Florida, the CCDF program is administered by the Department of Education and the Office of Early Learning (OEL). The financial burden of the CCDF spending and expenditures falls on both the federal and state levels of government. The average total yearly expenditures from about 2014 to 2019 are approximately $135,802,231\textsuperscript{39}.

**Eligibility and Cutoffs**

For a family of three in the state of Florida, the annual total family income must not exceed 85% of the state median income (SMI) which is approximately 185% of the federal poverty line. This value equates to about $52,602 in annual total family income. For example, if a single mother of two earns more than the aforementioned amount in a given year, she would lose CCDF benefits. From a broader perspective, a single mother working a full-time job could earn about $26 per hour (if working approximately 2,000 hours in a year) and still

remain under the CCDF umbrella of benefits. Consider the situation of two parents with one child, however. Their combined hourly rates must not exceed $26/hour. Therefore, the minimum wage increase could affect one of the parents in such a way that their total annual income is pushed over the 85% SMI eligibility cutoff, leading to a loss of CCDF benefits. In a given month, the CCDF offers assistance to approximately 69,200 households. According to our income demographics, approximately 3.8% of Florida households fall near 185% of the FPL, thus making said households at a higher risk of being pushed over the CCDF benefits cliff 40.

5. Florida KidCare

Functions and Participation

Florida KidCare includes the four-government sponsored health insurance programs – Medicaid, Medikids, Florida Healthy Kids, and Children’s Medical Services (CMS) Health Plan. The combination of these programs is used to enforce a seamless means of health coverage for Florida children from birth to young adulthood.

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Funding and Administration

Florida KidCare is funded by both state and federal levels of government and is administered through four main partners. Florida’s Agency for Health Care Administration (AHCA) administers Medicaid and MediKid services for children ages 1 to 4 and oversees Florida KidCare to assure its compliance with federal laws and rules. Florida Healthy Kids Corporation (FHKC) governs the Florida Healthy Kids program for children ages 5 to 18. Florida’s Department of Children and Families (DCF) determines Medicaid eligibility and administers the Behavioral Health Network for children ages 5 to 18. Finally, the Florida Department of Health (DOH) is responsible for the Children’s Medical Services (CMS) Health Plan for children with special health care needs from birth to age 18 with a family income up to 200% of the FPL.
Effects of Raising the Minimum Wage on Employment & Public Benefits

Eligibility and Cutoffs

For a family of three in the state of Florida, the annual total family income must not exceed 133% of the federal poverty line (FPL). This value equates to about $29,208 in annual total family income. For example, if a single mother of two earns more than the aforementioned amount in a given year, she would lose KidCare benefits for her children. A single mother working a full-time job could earn about $14.60 per hour (if working approximately 2,000 hours in a year) and still remain just under maximum income level to remain eligible for KidCare benefits. With the minimum wage rising to $15 per hour in 2026, similar individuals working full-time minimum wage jobs stand to lose said benefits if they reach the edge of the benefits cliff⁴¹.

6. Supplemental Nutrition Assistance Program (SNAP)

Functions and Participation

The goal of the SNAP program is to provide nutrition benefits to supplement the food budget of needy families to make healthy food more accessible as families move towards self-sufficiency. Eligible low-income families can purchase foods for the household such as fruits,

vegetables, meat, dairy products, breads, etcetera to encourage a balanced and healthy lifestyle.

As of March 2021, approximately 1,412,090 Florida citizens received SNAP benefits\textsuperscript{42}.

\section*{Funding and Administration}

The SNAP program is funded strictly at the federal level and is administered by the U.S. Department of Agriculture. Between 2014 and 2019, the federal government’s yearly SNAP expenditures come to an average of about $5,160,136,018\textsuperscript{43}.

\section*{Eligibility and Cutoffs}

To be eligible for SNAP benefits, total annual family income must be within the limits of 200\% of the federal poverty level, parallel to CHIP eligibility requirements. For a family of three, this about $43,920 per year. See previous CHIP information for contiguous information regarding SNAP’s cutoff points.


7. Women, Infants, & Children (WIC)

Functions and Participation

WIC is the Special Supplemental Nutrition Program for Women, Infants, and Children that offers supplemental nutritious foods, nutrition education, breastfeeding support, and referrals to health care and other social services to eligible participants. According to FloridaHealth.Gov, approximately 420,000 women and children benefit from WIC in a given month\(^{44}\).

Funding and Administration

Since its initial startup in 1974, WIC has been fully funded at the federal level. Similar to SNAP, WIC is administered federally by the Food and Nutrition Service of the U.S. Department of Agriculture. At the state level, WIC is administered by the Florida Department of Health’s Bureau of WIC Program Services. From 2014 to 2019, the average annual WIC federal spending was about $362,399,380\(^{45}\).

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Eligibility and Cutoffs

The person applying for WIC benefits must be pregnant, recently pregnant, breastfeeding, an infant, or a child under the age of 5. Additionally, total annual family income must be within the limits of 183% of the federal poverty level. For a family of three, this value would equate to about $40,182 or about $20.09/hour when working full-time. If the minimum wage increase affects the aggregated family income to the point of crossing this income threshold, a family could reach the WIC benefits cliff and lose its respective aid.46

8. Section 8 Housing Vouchers

Functions and Participation

The Section 8 housing voucher program is designed to assist low-income families, the elderly, and the disabled to afford decent, safe, and sanitary housing provided in the private market. Participants in the program have the ability to find and choose their own housing, whether that be single-family homes, townhomes, or apartment units, as long as the housing meets the requirements of the program. The housing vouchers program assists approximately 451,000 Floridians; however, many remain on extensive waitlists to benefit from the program.

Funding and Administration

Housing vouchers are funded by the federal government’s U.S. Department of Housing and Urban Development (HUD) and administered locally by public housing agencies or PHAs. When a family is granted a housing voucher, they must find suitable housing of their choice with a cooperating lessee willing to rent under the program. Thereon, a housing subsidy is paid to the respective landlord by the PHA on behalf of the family and the family is

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responsible to pay any difference between the landlord’s rent charge and the amount subsidized by the program. In some scenarios, a PHA will even authorize a family’s use of its voucher to purchase a home. From 2014 to 2018, the federal government spent a yearly average of about $827,417,813 in expenditures towards Section 8 vouchers48.

Eligibility and Cutoffs

To be eligible for Florida’s Section 8 housing vouchers, a family’s income cannot exceed 50% of the median income for the relative county or metropolitan area. A PHA is required to provide 75% of its voucher to applicants earning incomes no more than 30% of the area’s median income. 50% of the Florida state median income (SMI) for a family of three is about $31,500, for example. This is a full-time, total hourly rate of about $15.75 per hour. Therefore, two working parents working in minimum-wage fields will most likely be ineligible to participate in the program. A single mother of two, however, may be able to stay within the requirements to be eligible for the vouchers even when the minimum wage hits its apex in 202649.


9. Temporary Assistance for Needy Families (TANF)

*Functions and Participation*

TANF is a time-limited program used to help families with children provide the family’s basic needs when the parents or guardians are struggling financially. The program aims to stimulate economic self-sufficiency through temporary cash assistance payments and other services. While TANF is beneficial to consider, TANF assistance is a more time-limited program and will be less impactful in the long run with respect to the minimum wage increase and responsive benefits cliffs over the next five years.

*Funding and Administration*

TANF is structured so that the federal government provides grants to the states to administer the program. In the state of Florida, TANF is administered by three state agencies: Department of Children and Families, Department of Education (Office of Early Learning), and Department of Economic Opportunity. From 2014 to 2019, the federal and state levels of government spent a yearly average of about $788,686,547 on the TANF program and its enforcement.
Eligibility and Cutoffs

To be eligible for the Florida TANF program, a Florida resident must be unemployed or underemployed receiving a low level of income. The TANF applicant must either have a child of 18 years or younger, be pregnant, or be 18 years or younger and the acting head of household. Additionally, TANF cash assistance is limited to a 48-month time period. In Florida, most do not receive benefits for more than one year. The TANF cutoff point is set at 185% of the federal poverty line. For a family of three, this is an annual income of about $40,626. Like the other subsidized programs, some families may be pushed over the benefits cliff as a consequence of the minimum wage increase, deeming them ineligible for TANF aid.\(^5^0\)

Benefits Cliff Review: A Case Study

For the purpose of our analysis, we focus on low-income workers mostly making minimum wage. Such workers are likely eligible or already receiving various public benefits and tax credits contingent on their household incomes or the number of dependents in their respective households. The gradual or sudden loss of these benefits as income rises is referred to in past literature as an implicit marginal tax on employment income. These implicit marginal tax rates can pose a significant threat to an individual’s or a household’s self-sufficiency when an increase in income triggers a loss of financially substantial public assistance benefits, such as Section 8 housing subsidies. In some cases, individuals can lose eligibility for more than one program at once when they reach a certain income threshold. Because the loss of public assistance can become a side-effect of wage increase, it is an important marginal cost to consider when analyzing the impact of the increasing minimum wage in Florida.

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**Scenario 1: Sara, single mother of two**

This section examines the potential changes to the value of various program benefits that hypothetical single mother Sara receives as her income increases from the current minimum wage. We will look at how changes in net benefits will affect Sara following the minimum wage increase. Sara has two children, ages four and six, and lives in Fort Lauderdale, Florida. She currently works full-time as a physical therapist assistant at a local medical office, making $8.65 per hour. For research purposes, we will assume that Sara works approximately 2,000 hours in a given year, making her current annual income before taxes slightly about $17,300. Following the wage jump to $10 per hour this coming September, Sara is expected to be making closer to $20,000 a year before taxes.

![Sara's Income Before](image)

*Figure 20 Case Study: Sally’s Income*
Using the Center for the Study of Economic Mobility (CSEM) at Winston-Salem State University’s Social Benefits Calculator, we mimicked Sara’s hypothetical situation. By entering information regarding her work status, income, household demographic, and location, the calculator generates estimates of the values of major public assistance benefits she would receive, as well as what her total monthly income including benefits would look like at varying wage rates. The Social Benefits Calculator looks specifically at the value of benefits received from SNAP, subsidized childcare, Section 8 housing vouchers, WIC, and the EITC. The line graph above displays these values and provides a visualization of the decrease in benefit values as Sara’s income increases.

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Additionally, we see the presence of significant benefits cliffs in Sara’s subsidized childcare, WIC, and SNAP benefits. Her aggregate benefits decrease, while some drop more abruptly than others due to the effects of harsh benefits cliffs. Sara’s case provides valuable insight when attempting to estimate how many households in Florida look similar to hers. By using the Social Benefits Calculator to identify harsh benefits cliffs, we know which levels of the federal poverty line are near different cliffs. By using our previous income statistics, we can get a better idea of how many Floridian households will be impacted by similar harsh benefits cliffs like Sara. The chart below selects some of Sara’s sharp benefits cliffs and gives a scope of how many Floridians may be affected in a similar way.
### Table 9 Benefits Cliff due to Income Changes

<table>
<thead>
<tr>
<th>Programs With Harsh Benefits Cliff</th>
<th>Income Eligibility Limit (% of FPL)</th>
<th>Estimated Number of Households Below Respective Poverty Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subsidized Childcare</td>
<td>150%</td>
<td>1,031,040</td>
</tr>
<tr>
<td>WIC</td>
<td>183%</td>
<td>1,009,560</td>
</tr>
<tr>
<td>SNAP</td>
<td>200%</td>
<td>1,009,560</td>
</tr>
</tbody>
</table>

In accordance with the information presented in the top panel, the value of Sara’s projected total social benefits when she makes $15 per hour is about 25% of the value of total social benefits she receives when she makes $8.65 per hour. Additionally, her after-tax income including these benefits decreases steadily as the wage pushes towards $15 per hour, going from $3,174.07 when making $8.65 per hour to $2,805.86 when making $15 per hour.

To further the understanding of the impact of the minimum wage raise on Sara’s livelihood, we utilized resources from the Federal Reserve Bank of Atlanta’s Policy Rules Database (PRD) and the CLIFF tool used in the institution’s efforts to advance careers for low-income families. This database gives more insight into the issue of benefits cliffs and offers graphics of what Sara’s hypothetical annual net resources would look like as the minimum wage increases. Annual net resources are defined as the difference between the household’s total financial resources minus basic expenses. Total financial resources can include after-tax employment income, state and federal tax credits, TANF cash assistance, and the estimated

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53 See Appendix B for CLIFF tool’s methodology.
total value of public benefits received. Basic expenses refer to taxes paid, rent payments, health care premiums, childcare expenses, and food expenses necessary to uphold a minimum standard of living. The expenses included are those that can potentially be reduced by the public benefits programs discussed throughout our report.

![Annual Net Financial Resources When Earning Minimum Wage](image)

Figure 22 Potential Eligibility Loss of Public Benefits

Retrieved from the Federal Reserve Bank of Atlanta’s CLIFF tool, the chart above displays Sara’s net financial resources accounting for her take-home pay plus the value of her public assistance minus self-sufficiency target expenses. The blue vertical lines indicate times in her career when she will lose eligibility for a public assistance program due to income
changes. Between 2021 and 2026, we see two points in which Sara is expected to experience the effects of a benefit cliff due to wage increases. As the wage climbs towards $15 per hour in the next five years, Sara’s annual net resources appear to increase, but at a relatively decreasing rate. Her annual net resources in 2021 are approximately $5,904 and her annual net resources in 2026 are approximately $6,442 – only $538 more than in 2021. While our focus is on the stage of wage increase through 2026, we see several larger benefits cliffs in Sara’s projected timeline beyond 2026 that reduce her net resources below their initial value in 2021.

Figure 23 Benefits Cliff Program Cut-Off (Sally)
In the graph above from the same CLIFF tool offers an additional visual of the drop-off in benefits as Sara’s income increases towards the $30,000 mark. Notably, we see the Head Start program fall off and SNAP and housing vouchers steadily decrease. Overall, after looking at the effects of the wage increase on Sara’s receipt of public assistance benefits over time and the progression of her overall net financial resources, she may not be left better off in the long run. Using Winston-Salem State University’s Social Benefits Calculator accounting for impacts on SNAP, childcare, housing vouchers, WIC, and EITC, Sara is expected to experience a slight initial increase in net monthly income when the wage jumps to $10 per hour in 2021, following by a steady decrease as the wage reaches $15 per hour in 2026. The Social Benefits Calculator expects Sara to take home approximately $368.21 less per month in 2026 than what she currently takes home. Combining this analysis with insights from the Federal Reserve Bank of Atlanta’s PRD and CLIFF tools, we still fail to observe an overwhelmingly significant increase in Sara’s overall well-being with her net annual resources only allowing a margin of $538 more worth of financial freedom per year. Furthermore, U.S. Census data\textsuperscript{54} reports approximately 480,286 single mothers of one to two children in the state of Florida in the most recent American Community Survey. About 26\% of these mothers are estimated to be

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below the poverty line, giving us further understanding of how many women and families in Florida may face a similar scenario to Sara’s.

While many workers in Florida will experience similar effects as Sara as the minimum wage increases, some will also experience the impact of lost wages due to shortened hours or, unfortunately, lost jobs altogether. Next, we will look at the latter situation in which a formerly full-time minimum wage worker loses his source of income due to job cuts following the wage increase.

Scenario 2: Tom, single father of two

For this case study, we will focus on Tom – a single parent with two children. Tom lives in Lakeland, Florida with two children ages 4 and 6. Lakeland is located in Polk County – a more rural area of Florida accounting for a different demographic of individuals than the area of Broward County our previous case study with Sara examined. This is important, as those located in the more rural areas of Florida are likely to experience the effects of unemployment as a result of the wage increase more than other urbanized areas of Florida. Prior to the enforcement of Amendment Two, Tom worked for minimum wage ($8.65 per hour) as a full-time electrician, having no secondary education or trade school experience regarding his craft. Again, we will assume that Tom works approximately worked 2,000 hours
in a given year, making his annual income before taxes slightly over $17,300. Following the wage jump to $10/hour, however, Tom’s employer had to adjust the payroll budget and cut Tom loose as a result. Tom’s monthly employment income went from about $1,400 to zero, causing him to seek out more help from public assistance programs while he looked for other work opportunities. Below, we see what Tom’s projected income would look like had he not lost his job.

Again, using the Center for the Study of Economic Mobility (CSEM) at Winston-Salem State University’s Social Benefits Calculator, we mimicked Tom’s hypothetical situation. By entering information regarding his work status, income, household demographic, and location, the calculator generates estimates of the values of major public assistance benefits he would receive before and after he lost his job. The Social Benefits Calculator looks specifically...
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at the value of benefits received from SNAP, subsidized childcare, Section 8 housing vouchers, WIC, and the EITC. As seen in Figure 25 below, we see how Tom loses his EITC due to loss of income but also gains unemployment benefits – a maximum of $275 per week in Florida. Overall, Tom’s total monthly benefits and net income decreases by approximately $409.07 when he finds himself unemployed. Figure 26 offers a visual comparison of what Tom’s benefits and net income looks like when he is making $8.65 per hour versus when he is unemployed. Arguably, Tom is only slightly worse off when he is unemployed, but he is making $809.27 more per month from benefits programs alone. Such benefits are also his sole source of monthly income when unemployed.

<table>
<thead>
<tr>
<th>Hourly Wage</th>
<th>$8.65</th>
<th>$0</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Income/Benefits</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Monthly Income</td>
<td>$1,442.00</td>
<td>$ -</td>
</tr>
<tr>
<td>Snap</td>
<td>$204.00</td>
<td>$204.00</td>
</tr>
<tr>
<td>Subsidized Child Care</td>
<td>$520.00</td>
<td>$520.00</td>
</tr>
<tr>
<td>Housing Voucher</td>
<td>$508.40</td>
<td>$761.00</td>
</tr>
<tr>
<td>Wic Benefits</td>
<td>$180.00</td>
<td>$180.00</td>
</tr>
<tr>
<td>Eitc</td>
<td>$493.33</td>
<td>$ -</td>
</tr>
<tr>
<td>Unemployment Insurance</td>
<td>$ -</td>
<td>$1,100.00</td>
</tr>
<tr>
<td><strong>Total Social Benefits</strong></td>
<td>$1,905.73</td>
<td>$2,765.00</td>
</tr>
<tr>
<td><strong>Total Monthly Benefits &amp; After-Tax Income</strong></td>
<td>$3,174.09</td>
<td>$2,765.00</td>
</tr>
</tbody>
</table>

Figure 25 Tom’s Proposed Benefits and Income at Varying Hourly Wages

In the state of Florida, Tom can only benefit from unemployment assistance for up to 19 weeks, so he is given an incentive to find new work within that time frame. There may be less motivation, however, knowing that he can make close to his working monthly income
without even having a job. With that being said, Tom represents the category of individuals in Florida that will find themselves needing public assistance more so following the wage increase because of the impact on overall employment. This is important to consider, as some will be phased out of assistance programs as their incomes increase, but there will also be an influx of people entering assistance programs or demanding more aid due to increased marginal unemployment. Based on our previously mentioned elasticity and employment loss estimates, we predict that there may be anywhere from 25,735 to 62,907 Florida residents

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55 Refer to Employment Effects section for details on these estimates. The values mentioned are the lowest and highest five-year averages of our estimated employment loss.
Note, also, that Tom represents a citizen of Polk County – a more rural area of Florida. This is important, as Florida workers in the more rural areas of the state are more likely to feel the unemployment impact of the wage increase, as they are currently working for low wages. Many workers in more urban cities of Florida, such as Miami or Jacksonville, are likely to be working for higher wages already. Therefore, their employers will not be scrambling as much to adjust their payroll budgets. In these rural towns, however, a jump to a $10 per hour wage is going to come as much more of a shock to local employers’ payroll budget, causing them to make more job cuts or decrease workers hours to stay up and running sufficiently.

Figure 27 below from the U.S. Department of Agriculture displays the wage gap between those in metropolitan versus nonmetropolitan areas. Notice the more rapidly increasing wage rate over the past decade in metro areas of the U.S. opposed to the more rural nonmetro areas.

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Figure 27 Metro vs. Nonmetro Wages in the U.S.

Note: All years reflect the Office of Management and Budget's April 2018 metropolitan area delineations, which are a minor revision of the 2013 metro area delineations. Shaded area indicates recession period. Source: USDA, Economic Research Service using data from Bureau of Economic Analysis, Series MAINC4.
The Bigger Picture

Below we have illustrated a visual representation of the Floridians participating in various major public assistance programs. When the minimum wage increases, there will be individuals that are affected by the wage elasticity and pushed into the unemployment sector, and there will be other individuals left in a grey area as their annual income increases, but their net social benefits decrease. Figure 28 below displays estimates of how much of the Florida population could potentially face losses of respective public assistance programs due to their current income’s proximity to the program cutoff points.

![Estimates of FL Households Participating in Various Programs](image)

*Figure 28 Public Assistance Participation by Major Programs*

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57 See Appendix A for methodology behind choosing focal programs.
Using our Florida demographic information and income statistics, we were able to identify Florida citizens that are within the income “bands” of certain cutoff points. It is important to consider, however, that we cannot determine who exactly in these income ranges make minimum wage specifically, as the data can also account for children, elderly or disabled populations. Additionally, many Floridians potentially eligible for certain programs do not apply or enroll due to circumstances such as ignorance or lack of understanding and resources.

Table 10 below displays estimates that offer a potential range of individuals that stand to be impacted by a benefits cliff scenario as a result of the shift in wage.

<table>
<thead>
<tr>
<th>Social Assistance Programs</th>
<th>Eligibility Cutoff</th>
<th>Number Of Participating Households</th>
<th>Approximate Number of Florida Households Near Benefits Cliff</th>
<th>% of FL Households Near Benefits Cliff</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adult Medicaid(^{58})</td>
<td>27%</td>
<td>127,499</td>
<td>179,351</td>
<td>2.3%</td>
</tr>
<tr>
<td>Housing Voucher(^{59})</td>
<td>110%</td>
<td>214,000</td>
<td>446,033</td>
<td>5.6%</td>
</tr>
<tr>
<td>School Readiness - Childcare</td>
<td>150%</td>
<td>147,000</td>
<td>211,954</td>
<td>2.6%</td>
</tr>
<tr>
<td>WIC</td>
<td>183%</td>
<td>420,000</td>
<td>303,198</td>
<td>3.8%</td>
</tr>
<tr>
<td>CCDF - Childcare</td>
<td>185%</td>
<td>69,200</td>
<td>303,198</td>
<td>3.8%</td>
</tr>
<tr>
<td>CHIP</td>
<td>200%</td>
<td>182,968</td>
<td>133,142</td>
<td>1.7%</td>
</tr>
<tr>
<td>SNAP</td>
<td>200%</td>
<td>1,412,090</td>
<td>133,142</td>
<td>1.7%</td>
</tr>
</tbody>
</table>

Table 10 Floridians Near Benefits Cliffs\(^{60}\)

\(^{58}\) Adults with dependent children.

\(^{59}\) The Section 8 Housing Voucher program is known to have a very long waitlist. This number of Florida households near the benefits cliffs is far greater than the number of those actually enrolled.

\(^{60}\) See Appendix C for methodology behind calculations.
Appendices:

A. Choosing Assistance Programs to Focus on:

With a wide number and variety of public assistance programs with many methods of identifying eligibility requirements, it was important to identify a set of programs to focus on. With that said, we considered factors such as:

- Amount of funding at the state and federal level
- Amount of expenditures at the state and federal level
- Amount of participants
- Ease of access
- Cutoff points

After examining characteristics such as above, we chose programs to focus on based on the conclusion that they are likely to be more highly affected by the wage shift, thus impacting more Florida citizens.
B. Federal Reserve Bank of Atlanta CLIFF Tool Methodology:\(^{61}\):

1. The Self-Sufficiency Target is based on the Federal Reserve Bank of Atlanta Cost-of-Living Database.
2. Wage growth is based on years of experience, education required, and Bureau of Labor Statistics data of the distribution of wages for the specific occupation in the specific county. The employment income charts show the real growth in wages, above the growth that occurs naturally as prices increase.
3. Projections for a near-minimum wage job are obtained using the wage growth associated with a cashier worker in the specific county.
4. The calculations for public assistance programs, taxes, and tax credits are produced using the Policy Rules Database.
5. To obtain estimates in present-value terms, future year values are discounted by 6.43 percent a year and then totaled.
6. To estimate taxpayer savings, we assume that in the case of public assistance programs with wait lists, a worker who transitions off of public assistance allows another worker in need to benefit from the newly vacant spot.

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C. Methodology Behind Estimating Affected FL Households:

To gain a better idea of how many Florida households could potentially be affected by the result of benefits cliffs following the minimum wage increase, we first need to approximate how many Florida households currently participate in the various focal programs. Using data from different program-specific websites, we gathered these numbers, as well as their cutoff points with respect to the U.S. federal poverty line.

Next, we looked deeper into Census data. Using the Census data\textsuperscript{62} regarding the state of Florida, we narrowed down approximately how many Florida households landed around the poverty line brackets neighboring the cutoff points for different benefits programs.

Take CHIP, for example. Its cutoff point is at 200% of the federal poverty line. Using the census data on the poverty statuses of families in Florida, we subtracted the number of households below 185% of the FPL from the number of households below 200% of the FPL \((1,273,678 - 1,140,536 = 133,142)\). In theory, this gives us an estimate of currently CHIP eligible families that are closer to the 200% FPL cutoff point and might be at a higher risk of experiencing the impact of a benefits cliff following the wage increase. We repeated this step for each program to yield our results in Table 10.

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To get the percentages in Column 5 of Table 10, we divided the values in Column 4 by the total number of Florida households – 7,905,832. While these estimates give a better idea of how many Floridians may be at risk of benefits cliffs, it is important to consider that not all program-eligible households enroll due to factors such as pride, ignorance, or overall lack of understanding of the complexity of these programs.
D. Florida Poverty Distribution – American Community Survey (FL)

Effects of Raising the Minimum Wage on Employment & Public Benefits
References


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https://www.aeaweb.org/articles?id=10.1257/app.20170085


https://www.researchgate.net/publication/4994549_Looking_for_a_Needle_in_a_Haystack_A_Reexamination_of_the_Time_Series_Relationship_Between_Teenage_Employment_and_Minimum_Wages_in_the_United_States

“Benefits Cliffs across the United States.” Federal Reserve Bank of Atlanta,


Effects of Raising the Minimum Wage on Employment & Public Benefits


“CSEM News & Events - Winston-Salem State University.” Wssu.Edu,
www.wssu.edu/academics/colleges-and-departments/college-of-arts-sciences-business-


“Florida Amendment 2, $15 Minimum Wage Initiative (2020)” Ballotpedia,
https://ballotpedia.org/Florida_Amendment_2_%20%20$15%20Minimum%20Wage%20Initiative_%20(2020)

“Florida CHIP Fact Sheet – The National Academy for State Health Policy.” Nashp.Org,

Florida DOH. “Programs and Services | Florida Department of Health.” Florida WIC Facts,
“Florida Federal Rental Assistance Fact Sheet.” *Center on Budget and Policy Priorities*, 15 Jan. 2021,


“Florida Food Assistance Program.” *Center on Budget and Policy Priorities*, 15 Jan. 2021,


“Florida Office of Early Learning | OEL.” *Floridaearlylearning.Com*,


Keil, Manfred, Donald Robertson, and James Symons. “Minimum Wages and Employment.”
Centre for Economic Performance, June 2001, http://eprints.lse.ac.uk/20119/


“Legal Alert: Florida Minimum Wage Increases to $7.31 Effective June 1, 2011.”
FordHarrison, 06 May 2011. https://www.fordharrison.com/legal-alert-florida-
minimum-wage-increases-to-731-effective-june-1-2011

“Medicaid Spending in Florida.” Ballotpedia, ballotpedia.org/Medicaid_spending_in_Florida.
Accessed 7 July 2021.

“MediKids.” Abca.Myflorida.Com,
ahca.myflorida.com/medicaid/Policy_and_Quality/Policy/program_policy/FLKidCare

Minimum Wage.” Southern Economic Journal, July 2001,
https://doi.org/10.2307/1061520

“National and State Housing Fact Sheets & Data.” Center on Budget and Policy Priorities, 10

https://journals.sagepub.com/doi/10.1177/001979399204600105


https://www.nber.org/system/files/working_papers/w12663/w12663.pdf


https://epionline.org/studies/r98/


“Updated Applications, Eligibility Determinations, and Enrollment Data.” Centers for Medicare and Medicaid Services, 2020, data.medicaid.gov/Enrollment/2020-12-Updated-applications-eligibility-determina/v5h6-5gz2/data.


ny%20.&text=minimum%20wage,in%20the%20minimum%20wage%20%C5%BD%2020.