

# Women's Eligibility for Unemployment Insurance: Disparities and Reforms

In Partial Fulfillment of the Master of Public Policy Degree Requirements  
The Hubert H. Humphrey School of Public Affairs  
The University of Minnesota

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05/15/2021

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**and** completion of final written version:*

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## Introduction

America's workforce is evolving. An increasing number of women and 'nontraditional' workers like part-time primary earners and 'gig' workers make up the labor force; yet, in many states these workers find themselves disadvantaged within the unemployment insurance program (UI). UI program requirements like full-time work availability and job separation reasons are overly burdensome to the non-traditional workforce, especially women. This study will seek to answer: how do reforms to UI programs affect the eligibility of women?

Data shows women in some states are up to 25% less likely to be eligible for UI than men. Even though women are a major part of the workforce - as of 2018, 57% of the female population worked compared to 69% of men (Federal Reserve Bank of St. Louis 2021) - they still face unique barriers like gender discrimination; motherhood penalties; and prevailing responsibility for child and elder care. These barriers lead to a precarious attachment to work or reduced wages for many women.

Researchers and reformers have largely focused on the monetary eligibility aspect of UI as the largest barrier to program access and corresponding reforms. But, a growing number of studies have shown that it may be the nonmonetary criteria that is a bigger barrier for most workers, women included, and reforms for this criteria need to be focused on. This study estimated eligibility under traditional UI rules and if three popular reforms were implemented. Additionally, probit models were estimated using personal and work characteristics to measure effects on eligibility and how they differed across the simulated UI program rules.

I find in simulations of UI eligibility only 13% of unemployed women were eligible for a traditional UI program while the men's rate was 21%. Disparities held through single reform introductions. Allowing for family obligation good cause separations reduced the disparity the most, helping women more than men. Only in a fully-reformed program did women and men reach parity in their estimated eligibility rates at 48.4% and 47.5% respectively. Probit results indicated that the gender gap in eligibility in the unreformed program is due to differences in rates of part-time work and industry. In a fully reformed program, where part-time work and family good causes of separation are eligible, women may be 0.4 - 7.5 percentage points more likely to be eligible for UI compared to white men.

## Background

### US Labor Market Context

Though this study was written during the throes of the COVID-19 pandemic and recession, which has caused some of the highest unemployment ever recorded in US history and largest expansion of the UI system, this study is focused on pre-pandemic time data. Therefore, the policy context will be focused on the labor market during the economic times preceding the COVID-19 downturn.

In 2020, approximately 20% of the workforce was part-time at 34 hours or less (Bureau of Labor Statistics 2020a). There are many reasons someone might choose to work part-time like time constraints a student faces or not needing a full-time income like a secondary earner. However, since the 1990's, a particular kind of part-time work has been on the rise: involuntary part-time work – defined as someone who wants to work full-time but cannot find a full-time job. This generally trends with the unemployment rate but since the Great Recession even as the unemployment rate has fallen, the percent of involuntary part-time workers has remained high (Valletta 2018). Some authors suggest this is due primarily to a change in industry composition and demographics as the rise is more than just traditional variation from labor market slack. See **Figure A1 and A2** (Valletta and van der List 2015).

Similarly, the number of people employed in contingent work has increased: freelancers, contractors, or on-call positions are a few examples. Contingent work is increasingly being used to keep labor costs low for employers. It also means many workers are not eligible for traditional safety net programs and can struggle to work and earn enough money. Estimates show as many as 25% of workers use contingent work contracts as their main source of income (The Aspen Institute and ILR School 2017). Unfortunately, data collection has not caught up with the nuances of contingent work and little data exists yet on the overall effects of contingent work. Though, indicators seem to show that this type of work is here to stay and may even continue to increase.

Another trend in the labor market is stagnating wages and consistent and increasing wage inequality. Around 1980, a major split happened with productivity increasing steeply but wages flatlining. See **Figure B**. Specifically, top earners have significantly pulled away from the rest of the workforce while the lower percentiles of earners have faced negative wage growth. Currently, a college degree acts as a gatekeeper to theoretical better jobs (in pay, benefits, hours,

etc.), but most college-educated workers continue to face stagnating wages regardless, unless they are in the top 1% of earners (Gould 2020).

Finally, across the decades, there has been a steep rise in nonwhite workers: in 2019, though workers who are white still made up 77% of the workforce, workers who are Black accounted for 13%, workers who are Asian for 6% and workers who are Indigenous for approximately 2%, while workers who are Hispanic made up 18%. All races and ethnicities had near-parity in the percentage of their populations participating in the workforce. However nonwhite workers continue to face lower levels of college education and higher rates of unemployment (Bureau of Labor Statistics 2020b). Projections are mixed on the short-term make-up of the labor force; regardless, as birth rates for some populations decline; the aging population retires; and immigration continues, the labor force will continue to see diversification in the long-term future (Bureau of Labor Statistics 2017).

### *Women in the Workforce*

The focus of this study – women – are facing their own victories and challenges in the changing labor market. Much like BIPOC (Black, Indigenous, people of color) workers, women have been steadily increasing their workforce participation since the 1950's. From below 35% participation in the 1950's, the female participation rate peaked at 60% in 1999 and has remained high until the Great Recession; and finally it has held around the mid to high 50's through the late 2010's and early 2020's (Toossi and Morisi 2017). See **Figure C**. Though they may be participating in the workforce more than ever, they still make up a majority of part-time workers at 63% in 2020 compared to just 44% of full-time workers (Women's Bureau 2020). Finally, women make up just over 50% of the work force that holds a bachelor's degree (Fry 2019).

However, women still face major discrimination. Perhaps most spotlighted is the wage gap. White women make 78 cents compared to white men with no college degree and 74 cents with a college degree as of 2019 (Cheeseman Day 2019). This varies significantly by age, occupation, race and ethnicity. Indeed, Black women only earn 61 cents compared to white men and 92 cents compared to Black men; Hispanic women only earn 56 cents compared to white men and 86 cents compared to Hispanic men (Hegewisch and Barsi 2020). Indigenous women face even higher disparities. Additional barriers include the 'motherhood penalty' where mothers are paid less and deemed less competent (Correll, Benard, and Paik 2007); the undervaluing of

feminine/care jobs and services, which are chronically underpaid and overworked (Shaw et al. 2016); and the need to ‘do it all’ leading to a reduction in time women can spend at work based on childcare and family needs (Parker 2015). These barriers compound and lead to women workers who earn less and are less attached to the labor market. This study will help inform which, if any, of these factors effect women’s eligibility for UI.

One final note on women in the workforce: more information will be coming to light about how women are faring during the COVID-19 recession and the following recovery period. Men have already seen growth in jobs while women are continuing to lose jobs as of December 2020 (Ewing-Nelson 2021). Women have been leaving the workforce in record numbers, whether by necessity or due to layoffs. As so, women will be facing a potential need for UI but increased ineligibility based on this type of job separation. Only as recovery continues will the true impacts of women’s workforce participation and UI eligibility and access come to light.

### US Unemployment Insurance Policy Context

UI programs in the US are administered at the state level and have two major goals: to provide job loss assistance to workers who find themselves unemployed through no fault of their own and to provide stimulus during recessions or downturns. If a state is experiencing a particularly bad downturn, it can trigger extended benefits partially paid for by the federal government and partially paid for by the state UI fund. Then, when a state’s unemployment rate lowers, the benefits turn off. This is different from special extended benefits that are funded through federal legislative during extended recessions such as the Great Recession and the COVID-19 recession. UI is one of the more responsive programs in the United States which makes it a powerful tool during downturns and recessions.

UI payments are covered through employer taxes of insured positions. States have different criteria for what classifies someone as an employer, but it is generally based on hours worked or wages paid out. This criteria is different for agricultural sector employers and excludes self-employed individuals – those receiving 1099 tax forms (Employment and Training Administration 2019).

These insured employers have a certain tax rate based on several factors including number of employees and UI claims against the business. This is called the experience rating. This tax is taken against a tax base that is set at the state level but cannot be lower than the

federal taxable wage base of \$7,000. For states with lower tax bases, their schemes are regressive: lower-wage workers pay more of their relative income into the system than higher-wage workers. Indeed, in approximately 50% of states, a full-time minimum-wage worker will earn more than the state's taxable wage base for UI. Additionally, the federal government imposes a tax of up to 6% to cover oversight and administration at the federal level, but in many instances, this is partially refundable to businesses who pay their state level taxes.

Once a worker is ready to apply for UI benefits, they must meet several criteria. **Figure D** shows this progression to eligibility under the rules of a traditional program.

### *Monetary Requirements*

Monetary requirements are only one broad criteria: did a worker earn enough money to be eligible to receive UI benefits? This is measured through a base period looking at total money earned, highest earning quarter, and, for some states, the number of hours worked. Traditional base periods are inclusive of the first four quarters of the most recent five quarters. This means it excludes a worker's most recent quarter of potential earnings.

### *Nonmonetary Requirements*

Nonmonetary requirements for UI eligibility are much more complex than monetary ones. First, one must have been working in an insured position when the job separation happened. Second, one must prove good cause separation. These are separations that are not the fault of the worker: usually things like downsizing, layoffs, or businesses closing. Being fired for cause or voluntarily leaving, regardless of the reason, are generally not covered. Once a worker can prove they left an insured job through no fault of their own, a third requirement must be met: they must be available for full-time employment of 35 plus hours per week at a single employer. This is often a continuing requirement to maintain benefits alongside proof of job-seeking behavior.

### *Reforms*

Many states have reformed their UI programs including implementing alternative base periods; expanding their good cause separations; and including part-time workers as eligible

under certain circumstances. A primary driver of this process was the Great Recession. Facing some of the highest unemployment rates in recent history, state UI programs were under intense pressure during that time period to help cover the millions who found themselves out of work.

The federal government not only subsidized additional UI payments, it also created a fund to incentivize states to update their programs through policy or technology reforms through the American Recovery and Reinvestment Act of 2009 (ARRA). Policy reforms included alternative base period calculations; allowing for part-time workers to receive benefits; good cause separation to be inclusive of compelling family reasons; continuation of benefits after exhaustion of regular benefits; and/or a dependent allowance. States had to implement at least two policies to receive their federal funds; however, they did not have to keep these reforms in perpetuity, leading some states to rescind back to their more traditional program guidelines (Obey 2009).

The alternative base period is one of the most popular reforms with 75% of states offering some version as of 2019 (Author's own calculations from Employment and Training Administration 2019). This has been the primary reform within the monetary criteria. For most states, it calculates the alternative base period with the last four of five quarters *or* the traditional base period which calculates the first four of five quarters, whichever is the highest. This reform is helpful for workers who do not or are not able to have a strong attachment to the labor market such as women, part-time workers, seasonal, or low-wage workers.

Allowing for part-time workers and expansions of good cause separations are the two major reforms being implemented for nonmonetary criteria. Many states are starting to change policies so that someone who is a primary earner with a history of part-time work can be eligible for benefits. However, most of these changes still omit large groups of part-time workers like students or workers who have legitimate needs for moving into part-time work from a full-time work history. Finally, states are just beginning to implement expansions to good cause separations. These expansions include things like leaving to care for a sick child or family member; to move due to a new job by a spouse or partner; or due to domestic violence. As of 2019, 25 states have expanded their good cause to include these (Employment and Training Administration 2019).

Many other reforms have been suggested though none are as popular in discussion or implementation as the three listed above. Other reforms include including groups like students or

immigrants; creating personal money accounts that follow workers to completely replace the UI system; and including self-employed/contract workers (Kletzer and Rosen 2006, McKay, Pollack, and Fitzpayne 2018, O’Leary and Wandner 2018). A final reform area is the solvency of UI programs. Though programs should be close to revenue-neutral, many states found their accounts extremely depleted after the Great Recession. In turn, many have made cuts to the program in different facets rather than attempting to reform overall the tax scheme. Regardless, many reform options have been suggested to increase funding into the UI program (Wentworth 2017, West et al. 2016). See von Wachter (2019) for a full overview of proposed reforms.

## **Previous Research**

### Efficiency

UI programs have been around since the federal implementation of the policy in 1935. Thus, much research has been done on the program’s efficiency and equity. Many studies have found that UI meets its two primary goals in a mostly efficient manner. UI payments can provide a smoothing effect to the spending habits of the recipient. Without UI, these studies find consumption would drop much farther than what happens when a worker receives UI benefits (Gruber 1997, East and Kuka 2015, Ganong and Noel 2019). Within UI programs, concerns rise that this consumption smoothing and unrestricted funding will cause individuals to stay on benefits longer instead of finding a new job – a moral hazard effect (Yegidis et al. 2015, Acemoglu and Shimer 1999, Valletta 2014, Kroft and Notowidigdo 2016). This effect causes inefficiency in the program and the broader labor market. However, studies have also shown that liquid cash access and increasing resources for laid-off workers is an income effect: many households cannot weather short-term shocks like unexpected unemployment (Larrimore et al. 2016). This income effect is efficient as compared to moral hazard effects which are inefficient (Chetty 2008, Rothstein 2011, Moffitt 1985, Schmieder and von Wachter 2016). Ultimately, the literature is not in complete agreement over the efficiency of effects to consumer and jobseeking behavior due to UI payments. Finally, the responsiveness of the UI program fulfills its second goal of providing stimulus during recessions or downturns (Monacelli, Perotti, and Trigari 2010, Klein and Staal 2017, Hall 2010, Orszag 2001).



## Equity

Equity of access and coverage of UI programs is a larger source of concern than economic efficiency of the program. The labor market and workforce evolution has seemingly outpaced the adaption of the UI system to changing labor market conditions. UI is facing the lowest recipiency rates since its inception while also experiencing significant differences among groups who are eligible for and receiving benefits. Researchers have long been trying to understand how eligibility and program criteria intersect with workers' choices to apply and the ultimate outcome of receiving UI benefits. This section will first discuss the research around eligibility for UI. Then it will review findings on application rates; and, finally, recipiency rates.

**Figure E:** Key Terms and Definitions Related to UI Rates

Term	Definition
Eligibility Rate	The percent of unemployed individuals who meet all criteria for UI
Application Rate	The percent of unemployed individuals who apply for UI
Recipiency Rate	A formal measure of the proportion of individuals receiving UI benefits out of the total unemployed population
Take Up Rate	The percent of unemployed individuals who actually receive UI benefits after applying

### *Eligibility*

Studies on eligibility only inform about a certain aspect around decreasing access to UI. Simply because one is deemed eligible or ineligible for UI, based on a study's method, does not predict whether that worker will apply for benefits and whether she will receive benefits if she applies. Yet, the advantage to studying this estimated eligibility is it helps inform the relationship between a worker as a worker – what type of job did they hold; in what industry; at what pay level; etc. – and a worker as an applicant to UI. Before being able to analyze and discuss application and receipt rates and ultimately UI program reforms and accessibility, one must understand how a worker's history affects her ability, on paper, to meet UI eligibility criteria and this intersection of labor market constraints to UI program criteria.

Many studies have focused on the determinants of eligibility for UI for low-wage and/or low-skilled workers. Shaefer (2010) uses Study of Income and Program Participation (SIPP) data from 2001 – 2003 to estimate eligibility for part-time primary earners and low-wage workers. He

finds that part-time primary earners are 7.4 percentage points less likely to be monetarily eligible and 1.8 percentage points less likely to be nonmonetarily eligible than full-time workers however the nonmonetary coefficient is not significant. The nonmonetary coefficient for part-time primary workers is seemingly insignificant due to other factors in the model including wages and sector. Among the lowest quintile of workers in this sample, Shaefer finds they are 10.7 percentage points less likely to be monetarily eligible and 23.6 percentage points less likely to be nonmonetary eligible compared to the highest quintile of earners. Finally, among retail workers, personal household service workers and education/social service workers, all three groups face lower rates of eligibility among both criteria than manufacturer workers.

Among low-wage and/or low-skilled workers, many researchers have specifically focused on how TANF/welfare leavers fare within the UI system: primarily after the 1990's welfare to work reforms, many recipients exited welfare and entered the labor force. Since UI is a major safety-net program for those attached to the labor market, if someone is fully integrated into the labor market, they should be able to access and utilize UI. Studies utilizing administrative data show that TANF leavers who are job losers are likely to be monetarily eligible for UI with estimates from 75 – 91% eligible (Rangarajan and Razafindrakoto 2004, Rangarajan, Razafindrakoto, and Corson 2002, O'Leary and Kline 2008). Among studies that used survey data, Boushey and Wenger (2006), used SIPP data from the 1990's and find that up to 76% of welfare leavers were monetarily eligible for UI benefits within 1.5 years of leaving welfare (with a low of 52% eligible within one quarter of leaving).

Few TANF/welfare studies have focused on nonmonetary criteria eligibility. Rangarajan et al (2002) estimates that up to 60% of their sample that was monetarily eligible was ineligible based on nonmonetary criteria. Another study estimated that up to 36% of their sample of TANF leavers were ineligible based on nonmonetary criteria (O'Leary and Kline 2008). These studies discuss and are in agreement about why so few TANF/welfare leavers are eligible based on nonmonetary criteria. Ineligibility based on nonmonetary criteria is often due to worker characteristics and precarious attachment to the labor market. These samples are primarily made up of low-skilled women with children, and these workers disproportionately find themselves voluntarily leaving due to childcare, family needs, or health issues. These issues, as detailed, are not universally accepted as good cause separation for UI eligibility.

Another important group to be studied is women – though in much of the research women are an afterthought to other disadvantaged groups like part-time earners, low-wage, and low-skilled workers. Though, in any given study around TANF/welfare leavers, up to 96% of the samples are women. However, these studies almost exclusively focus on low-income women versus a broader representation of women workers.

One of the earliest studies explicitly on women's eligibility for UI was Latimer (2003) who used West Virginia UI administrative data from 1997 merged with county and state level microdata to measure differences in eligibility between men and women who applied for UI. She found women are 1.54 times more likely to be disqualified from benefits than men due to monetary eligibility and 1.87 times more likely to be disqualified for benefits than men due to nonmonetary eligibility even when holding age, education and race constant. Results here may be too narrow to generalize to the entire US population or into the current workforce and labor market conditions due to the year and single-state sample.

Additionally, Gustafson and Levine (1998) use data from 1979 – 1994 from the NLSY to estimate eligibility criteria among low-skilled, low-wage workers and find that among women 21 and older, monetary eligibility ranged from 54.1% for low-skilled women to 78.1% for high-skilled women. However, the range for nonmonetary eligibility among women ranged from 24.9% for low-skilled women to 24.3% for high-skilled women. Men's ranges for monetary eligibility ranged from 80.2 – 84.3% and for nonmonetary eligibility ranged from 37.9 – 40.1%. Low-skilled men had an overall estimated eligibility for UI benefits at a rate that was fifteen percentage points higher than low-skilled women.

Levine (2005) used CPS data from 1979 – 2004 to estimate results primarily around low-skilled/non-skilled workers and receipt across the business cycle but also provided results by gender. He found women are 25% less likely to satisfy nonmonetary eligibility in this sample. Finally, Lindner and Nichols (2012) use SIPP data from 1997 – 2007 to estimate eligibility among low-wage and low-skilled workers. Unfortunately, they did not use subgroups of male/female. They do however provide a breakdown of their sample characteristics by sex. Their sample shows that, by their specifications, 52.6% of men are eligible for UI compared to just 47.4% of women. Adding in reforms to allow for part time workers increases the women's percentage to 64.2% and, separately, allowing for additional good cause separations increases the percentage to 77.6%.

These studies of estimated eligibility and likelihood of being eligible are all in agreement: women tend to be less eligible for UI across both criteria compared to men; and, other types of disadvantaged workers like low-wage, low-educated/skilled, and part-time workers also tend to be less eligible than their counterparts (high-wage, high-educated/skilled, or full-time workers). A complex web of social-family dynamics; historical and current discrimination; and labor market factors affects a person's standing as a worker and attachment to the labor force and then ultimately their estimated eligibility for UI benefits. Indeed, nonmonetary criteria seems to be a larger hurdle than monetary.

### *Application Rates and Reciprocity Rates*

Even though states have been modifying criteria to be more generous since the early 2000's continuing through the current day, the reciprocity rate continues to trend downward. See **Figure F**. This highlights a gap in the literature: little research has been done on how estimated eligibility and eligibility generosity of UI programs affect the declining application rates and alarmingly declining reciprocity rates.

The application rate for UI benefits is hard to measure due to lack of access to administrative data. Publicly available administrative data only includes the count of approved applications not the total number. Instead, researchers have focused on survey data asking questions around perceived eligibility; choice to apply; and then ultimately receipt or not of UI benefits. Studies by Vroman (1991) and Wandner and Stettner (2000) used CPS supplemental surveys from the late 80's and early 90's to evaluate a decrease in the application rate for UI benefits during the 1980's.

The survey was given to experienced job losers (experienced meaning at least two weeks of prior work at job). Vroman (1991) analyzed the first supplement and Wandner and Stettner (2000) expanded by analyzing the second supplement. Both studies found similar results: only one-third of these samples applied for UI. Among those who did not, the most cited reason was they believed they were ineligible, specifically the majority cited they believed they did not work enough. Both studies offered some conclusions about why this may be including loss of unionization of the workforce; loss of manufacturing, mining, and construction jobs; and shifts in unemployment to states with more stringent UI programs. Anderson and Meyer (1997) utilized administrative data from five states for their analysis. Among this sample from 1979-1984, 37%

reported they did not apply for UI because they expected to get another job soon or be recalled soon – quite different from the results found from studies with the CPS supplemental surveys data.

The CPS has not released supplemental surveys focused on the UI program since the original release in the 1980/90's. Instead, more focus has been put on the recipiency rate, which is easily measured.<sup>1</sup> Recipiency rates for UI benefits began declining for the first time in the 1980's along with the application rate. Blank and Card (1991), were one of the first studies to look at this issue. They used CPS and PSID data from 1968-1987 to estimate what was affecting the decline in UI application and receipt. Their results showed union status had a strong effect on a worker's receipt rate but criteria for eligibility did not. Geographic location had a large effect on receipt rates and demographic characteristics had a moderate influence. Quite importantly, they found about 25% of the variation in receipt rates was unexplained after controlling for these and other variables. This study, though important, is limited by its specific timeframe of the 1980 decade.

Anderson and Meyer (1997) looked at this trend through a utility model: how do benefit levels and duration affect a worker's receipt rate? They utilized administrative data from five states for their analysis. Ultimately the study predicted that a 10% increase in weekly benefit level would increase receipt by 2 - 2.5 percentage points while a 10% increase in weekly benefit duration would increase receipt by 0.5 - 1 percentage point. These results suggest the receipt rate is actually influenced by the application rate based on the utility of the benefit level and other fiscal considerations to the individual worker versus a larger systemic issue.

Since then, many have studies have shown declining recipiency rates in general and across specific groups. The Government Accountability Office (GAO) released an initial report in 2000 and a follow up in 2007 that found low-wage workers were twice as likely to be unemployed yet only receive UI benefits at one-half the rate of high-wage workers as measured with SIPP data from 1992 to 2003. The GOA suggested in these studies that UI program characteristics were the reason for the reduced recipiency among low-wage workers in their samples.

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<sup>1</sup> Recipiency rates are calculated from the total number of initial claims approved via state administrative records divided by the total number of unemployed from the monthly CPS surveys. There are multiple specifications for recipiency rates so study to study may be specifying different rates.

Perhaps the most recent investigation into the declining reciprocity rate is Vroman (2018) who considers three major reasons for the decline. He outlines two UI program characteristics – changes in duration length and changes in nonmonetary eligibility criteria – and one macrolevel characteristic – increased duration of unemployment spells. Using data from 1997 – 2016, he finds that these three factors account for about the total reciprocity rate has fell by approximately 25% and changes in duration of benefits and changes to nonmonetary eligibility criteria account for approximately half of the reduction.

Across these studies, whether UI program characteristics, individual characteristics or macroeconomic conditions, there are still unexplained factors pushing the reciprocity rate to its historical low. One remaining factor that has yet to be directly studied may be variation in interpreting, processing, and approving or denying applications at the administrative level. Much as case managers for welfare may vary in the extent to which they are generous or strict in their implementation of rules and regulations – there may be variation in the administrative practices of UI program staff. Whether at the staff, manager, or state level, this ability for administrative ‘grey area’ is incredibly important.

## **Study Overview**

This study adds to the existing literature by prioritizing women as the specific study group, and a subsample of BIPOC women to show the intersection of race and gender in this field. Findings so far are in agreement: women are consistently less eligible in estimates than men for UI benefits across both criteria. But, few studies have focused on women with a generalizable sample. Latimer (2003) and Gustafson and Levine (1998) both focused on women but Latimer’s study is a narrow sample of only West Virginia data and Gustafson and Levine is simply outdated when considering the major changes in the workforce, labor market and UI programs since 1994.

Additionally, this study will add to the existing literature by utilizing more recent data than many previous studies. Most recent studies use data from the early 2000’s or through the Great Recession (2007 – 2009). This study will be using data from 2014 – 2016. Importantly, many changes to both UI programs and workforce characteristics have happened since the Great Recession allowing this study to capture more accurate results for the current times.

This paper will attempt to answer the questions: do UI program reforms affect women's eligibility for UI benefits compared to traditional UI programs *and* then what personal or worker characteristics influence these effects the most? Results will be shown for women as a full sample; BIPOC women as a subsample; and men as a comparison group. I expect all women to be less eligible for traditional programs versus reformed programs. Additionally, I expect BIPOC women to trend similar to the full women sample but at lower rates. Based on previous research and women's general workforce attachment and participation, I expect the driving factor of this to be nonmonetary criteria. Indeed, I hypothesize women will be less likely to meet nonmonetary criteria than men.

## **Data and Population**

### Dataset

This study will analyze data from the Survey of Income and Program Participation (SIPP), specifically from the 2014 panel (reference years 2013-2016). SIPP has been administered by the Census Bureau since 1983. It is a nationally representative longitudinal household level survey following interviewees for up to four years (waves) at a time. Within the data, interviewees report on job tenure, pay, overall labor force participation, and public program participation at a monthly level and, for some variables, a weekly level. This is ideal to identify when interviewees move in and out of nonemployment spells, unemployment spells, and UI receipt spells. It also allows for a detailed monetary and work history, which can be more accurate than CPS data since it has a shorter recall period (four months compared to twelve months).

The SIPP microdata has additionally been merged with an author-created dataset which includes state and UI program characteristics. Data was pulled from two major reports from the Bureau of Labor Statistics and from the University of Kentucky's Center for Poverty Research as follows:

1. Quarterly Data Summary<sup>2</sup> -- this data includes aggregate state-quarter numbers for the labor force including total number of insured and noninsured workers and employers;

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<sup>2</sup> Access: [https://oui.doleta.gov/unemploy/data\\_summary/DataSum.asp](https://oui.doleta.gov/unemploy/data_summary/DataSum.asp)

reciprocity rates; un/employment rates; benefits paid; and total claims paid. This data was used to control for state fixed effects in the probit models.

2. Comparison of State Unemployment Insurance Laws<sup>3</sup> -- this data includes annual notices of state laws and UI program regulations such as taxable wage base; minimum qualifications for monetary eligibility; good cause separations; and work search requirements. The author compiled the information from each annual report for years 2014 – 2016. This data was used for program eligibility requirements.
3. University of Kentucky Poverty Research Center: National Welfare Data<sup>4</sup> -- this dataset is produced and maintained by the PRC at the University of Kentucky. It includes details on a state's poverty measures, GDP, population, and political affiliations. This data was used for state characteristics and minimum wage calculations.

### Sample Population

Following methods similar to Shaefer (2010) and Lindner and Nichols (2012), this study is focused on workers at the point in which they enter a spell of unemployment. Workers who identify in a job during reference month  $t$  but not working in reference month  $t+1$  are considered to have entered a spell of unemployment in month  $t+1$ . If a worker notes they are working in reference month  $t$  but jobless and not looking for work in reference month  $t+1$ , they are considered out of the labor force.<sup>5</sup>

This study is focused on women who are unemployed but still actively seeking work based on their primary job (*ejbl*). Parameters were set to only consider individuals of working age – 20 to 55 – and during the reference years 2014 to 2016. The full sample includes reference year 2013 but due to the data needed to calculate base period earnings, reference year 2013 spells were omitted. Men and women were kept and then turned into subsamples of women, BIPOC women, men and BIPOC men. BIPOC women and men include anyone who did not identify as white with the SIPP *erace* variable. Unfortunately, the 2014 panel only included four race categories: white, Black, Asian, and multiple races. This lack of specificity was a primary factor for combining racial groups into a BIPOC label. There were a total 11,079 spells for analysis.

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<sup>3</sup> Access: <https://oui.doleta.gov/unemploy/statelaws.asp>

<sup>4</sup> Access: <http://ukcpr.org/resources/national-welfare-data>

<sup>5</sup> Note: based on Bureau of Labor Statistics guidelines for labor force participation



Note with this method, a single individual (an observation) could have multiple spells considered in the analysis if she entered an unemployment spell multiple times over the reference period.

### Sample Population Characteristics

**Table H** shows the characteristics of anyone entering a spell of unemployment from 2014 to 2016. Among the entire sample entering an unemployment spell, 53% are women. The sample is majority white – approximately 75%. SIPP only has four race categorizations (Asian, Black, multiple races, and white) and one ethnicity (Hispanic) which does not allow for much detail in identity categories. Just over one quarter of the sample has just a high school diploma and another 17% have a BA degree. Approximately 66% identify as single and the average family size is just under three individuals. Public program receipt is low: only 3% receive WIC; 21% received SNAP; less than 1% received TANF dollars; and 25% received the earned income tax credit. This is quite telling because the average annual income for this group is \$14,608 – with the lowest three quintiles being under this amount in average earnings. However, 66% worked at their state minimum wage (or prevailing federal wage of \$7.25) and approximately 58% worked part time averaging only 1 job per month. Finally, 87% had no months of missing earnings during the thirty-six month reference period. Overall, this sample is quite low-earning and low-educated; though seemingly working regularly, if not many hours.

Among just the women's sample entering an unemployment spell (5,898 spells), race, ethnicity, and education levels trend with the full sample with a notable exception of slightly higher rates of bachelor and master's degrees. This is expected as women have overtaken men in the number of post-secondary degrees. Sixty-four percent identified as single and the average family size was still approximately 3 people and an average of 1 child. Public program receipt increased anywhere from 2 to 5 percentage points for WIC, SNAP, TANF and EITC. The women's sample still averaged just 1 job per month and earned, on average, \$12,442 in a year – significantly different compared to men. The women's sample worked part-time and for minimum wage at higher rates than the full sample but also had a higher percentage of months without missing earnings.

Finally, the BIPOC women sub-sample (1,591 spells), was made up of a majority Black women at 65%; 16% Asian women; and 19% of individuals identifying as multiple or other races; and, only 8% of the sample identified as Hispanic. The Hispanic population is

significantly different than the full women's sample which most likely means most women who identify as Hispanic identify as white Hispanic. Among the BIPOC women sample, education levels trend with the full women's sample. Seventy-three percent identify as single and the average family size still averaged at 3. This sample had the highest rates of public program receipt: 7% with WIC; 34% with SNAP; 2% with TANF; and 35% with EITC receipt. This sample also had the lowest annual earning at approximately \$12,000. However, the three lowest quintiles of the BIPOC women's sample have the highest average earnings compared to the other samples' quintiles. This does not continue for the two highest quintiles. Finally, 62% worked part-time – lower than the full women's sample – and 72% worked for minimum wage – on par with the full women's sample; and, at the highest rate of any sample, 90% of BIPOC women had no missing earnings over the thirty-six month reference period.

### UI Program and State Characteristics

**Table J** shows a select number of UI program characteristics by state in 2016 including whether each state has any of the three reforms implemented, a waiting period in place, minimum and maximum duration for benefits, and the minimum base period earnings to qualify. **Figure K** shows the number of states with select reforms implemented over a 5-year period of 2014 to 2019. Though slow moving, **Figure K** shows that states indeed ebb and flow year to year in their policy implementation of UI regulations. This is partially due to some UI program reforms being rules or interpretations rather than state statute. A shift in political power or even department leadership could cause changes in reform implementation.

As initially shown in **Figure F**, the national average reciprocity rate has been on the decline over the last 50 years. **Figure L** shows the reciprocity rate in more detail from 2014 – 2019 by showing it in a regional breakdown. The reciprocity rate varies quite dramatically by region. The South region has by far the lowest rate trending around 20% compared to the West and Midwest regions trending between 30 and 40% and finally the North region trending consistently above 40%. Though programs have been reforming to be more generous, benefit receipt is on the decline.

## **Simulated Effect of Reforms on Eligibility: Methods and Results**

### Estimating Eligibility with and without Reforms

Estimated eligibility helps to show how different reforms or changes to UI programs affect someone's eligibility. Estimation results do not translate perfectly into reciprocity but allow for generalizable understanding of how certain populations may be affected more or less than others. In this study, the full sample of anyone entering an unemployment spell (2014 – 2016) is shown as well as female/male and BIPOC female/BPOC male subsamples. The simulation model accounts for four of the five main aspects of UI eligibility:

- Minimum earnings in a defined base period
- Minimum earnings in a single quarter within the defined base period
- Job separation cause
- Full-time work availability

Estimates were calculated for five hypothetical programs to compare a fully traditional program; three reform policies; and a fully reformed program. To be eligible for the fully traditional program, a worker must meet the traditional base period (TBP) earning criteria and corresponding high quarter; be available for full-time work; and have an involuntary job separation. To be eligible for the fully reformed program, a worker must meet either the TBP or alternative base period (ABP) earning criteria and corresponding high quarter; be available part-time or full-time; and have an involuntary or family obligation job separation. The three reform programs have eligibility based on the traditional program except being inclusive of either an ABP, family obligation good cause separations, or part-time availability. By looking at the most conservative and most generous program as well as single reforms, results will show how effective reforms are at increasing eligibility for women.

### Key Variables

#### *Monetary Eligibility*

Two earning variables were calculated to identify monetary eligibility: traditional base period earnings and alternative base period earnings. To calculate both earnings, the monthly personal earned income variable from a worker's primary job was cleaned, lagged and

aggregated. First, any missing months were set to zero.<sup>6</sup> Then for the TBP, of the most recent sixteen months, the first twelve monthly wages from were totaled. This omitted the most recent quarter. The ABP was calculated by totaling the twelve most recent monthly wages. This included the most recent quarter. These earnings were then compared to each state’s minimum base period qualifications for that year. Additionally, a high quarter flag variable was created by aggregating the monthly earnings for each theoretical quarter and comparing to each state’s minimum high quarter earning requirement.

For variables using traditional base periods just the TBP was used for eligibility. However, for variables using alternative base periods, most rules allow for either the ABP or the TBP to be used in calculating eligibility. Therefore, in this study whenever a variable is calculating with ABP reforms, it allows for that observation to be eligible with the ABP calculations or the TBP calculations.

### *Monetary Eligibility*

SIPP collects information on why someone separated from their job. This is an extensive categorical variable with fifteen options. For the purpose of this analysis, this variable was transformed into two binary variables. First, involuntary separation was set equal to one if someone noted a reason including plant closed, slack business conditions, seasonal work, or other involuntary reason. Missing values were coded to “*other involuntary reason*” and included as an involuntary separation. In line with general good cause provisions of traditional programs, “*own injury or illness*” is considered an acceptable separation and included in the involuntary separation category. Second, reform separation was set equal to one if someone noted a reason the same as involuntary separation as well as childcare issues, personal/family obligations, or other personal reason. Reform separation represents job separation causes that would be considered good cause separations under the family obligation reform program but not in a traditional program. See **Table G** for a breakdown of the sample and separation reasons.

Full time availability, for the purpose of this study, will be considered based on past work history as a close proxy to actual availability. If the worker previously worked less than 35 hours

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<sup>6</sup> This should not affect the calculations as missing earnings would not be counted – the same as \$0 earnings – but for coding purposes missing earnings needed to be set to the zero value.

at their primary job, they are considered available for part-time; if they previously worked 35 hours or more at their primary job, they are considered available for full-time.

Table M: Simulation Programs

	Traditional Program	ABP Reform Program	Part-Time Reform Program	Family Reasons Good Cause Reform Program	Fully Reformed Program
Monetary Criteria	TBP	ABP	TBP	TBP	ABP
Nonmonetary Criteria: Work Availability	Full-Time	Full-Time	Part-Time	Full-Time	Part-Time
Nonmonetary Criteria: Job Separation	Involuntary Only	Involuntary Only	Involuntary Only	Involuntary or Family Obligations	Involuntary or Family Obligations
Nonmonetary Criteria: Job Type	Insured	Insured	Insured	Insured	Insured

### Differences in Eligibility with and without Reforms

This simulation provides results for full program eligibility which is a product of monetary and nonmonetary eligibility. Indeed, as previously discussed, past research has shown nonmonetary criteria is a major burden while the monetary criteria are not. To first understand how monetary and nonmonetary eligibility impacts this simulation, see **Tables N1, N2, and G**.

**Table N1** shows monetary criteria for each state in 2016 as well as the state's minimum wage and annual earnings of someone working 35 hours a week and 20 hours a week at the state's minimum wage.<sup>7</sup> Minimum wages ranged from \$5.15 to \$10.00 with an average of \$8.01. Note: any minimum wage at the state level under the federal \$7.25 would be raised to the prevailing federal wage; however, conservatively **Table N1 and N2** utilize the state wage even if it is lower. In 2016, across the 50 states, the minimum base period earnings ranged from \$0 to \$4,860 with an average of \$2,531. Approximately 26 states were at or below the average. The high quarter requirement ranged from \$0 to \$3,162, with an average of \$1,004. 18 states did not have a high quarter earning requirement.

<sup>7</sup> This equates to 1820 and 1040 total hours in a year, respectively, as workers may work more hours in certain weeks than others or not work every single week.

In all 50 states, someone working the equivalent of 35 or 20 hours a week for 52 weeks (1 year) at her state's minimum wage would meet the minimum base period requirements for monetary earning. A proxy for quarterly earnings was calculated by simply dividing the annual earnings by four and comparing that number to the high quarter requirement. In all 50 states, individuals working the equivalent of 35 hours a week for 52 weeks met this requirement. For workers at 20 hours a week for 52 weeks, in six states they would *not* have met the high quarter earning requirements.<sup>8</sup> One cautious note to these results: though encouraging that wage level was seemingly a minimal barrier to monetary eligibility, the method used makes assumptions about how many weeks worked throughout the 52 week/1 year cycle. Even working just 1040 hours a year may come in bursts of close to full-time work with periods of no or low hour work. If hours and the corresponding wages did not align with job separation, specifically in a TBP state, these wages may not have been counted.

**Table N2** compares the distribution of base period earnings and high quarter earnings among the sample by quintile and state base period and high quarter requirements by quintile. Sample quintiles show the full unemployed sample as well as the two subsamples of women and BIPOC women. The state quintiles show the average, minimum and maximum amount for each quintile as well as the number of states included in each category. High quarter quintiles are slightly misleading as 18 of the 20 states in the two lowest quintiles have a \$0 high quarter requirement.

The lowest quintile of earners from the study all met the base period earning requirement for the lowest quintile of states; however, none of these earners met any other quintile of state earning requirements. Moving to the second lowest quintile of earners, these earners easily met the earning requirements for the two lowest state quintiles, and they all exceeded the average requirement for the median state quintile though they did not all meet the maximum requirement. The median, second highest and highest quintiles of earners, across all three samples, easily met all five state quintiles of required base period earnings. This shows a majority of the earners in the sample met the majority of states' base period earning requirements.

The lowest quintile of earners all had high quarter averages of less than \$80 and therefore met the lowest state quintile but not the second lowest quintile. The second lowest quintile of earners had high quarters that easily met the second lowest state quintile with some samples

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<sup>8</sup> All six states have a minimum wage at or above the federal rate.

having met or exceeded the state median quintile's average but none met the maximum requirement. The median quintile of earners met and exceeded the four lowest state quintiles. However, again, not all samples met the average requirement for the highest state quintile and none met the maximum. Finally, the second highest and highest earnings quintiles met all five state quintiles for high quarter requirements. Though not quite at the rate of base period earnings, a large majority of the sample met high quarter earning requirements.

**Table G** shows the breakdown of work separations sorted into UI-relevant categories of involuntary, voluntary and reform job separation reasons. Ultimately, among the sample approximately equal numbers of individuals identified an involuntary or voluntary separation (43%) with another 13% with reasons that were identified as reform causes. These individuals are not eligible in three of the five programs in the simulation. With over half of the sample not eligible under a traditional UI program, this criteria was a major driver of the results in **Table P**.

**Table P** shows the results from the eligibility simulation across five fictitious programs for the full sample; a gender breakdown; and BIPOC breakdown. Among the full sample, only approximately 17% of those entering an unemployment spell were eligible for the fully traditional program with less than a one percentage point increase for a traditional program inclusive of ABPs. The ABP reform is the only monetary reform and, in line with the findings discussed previously, made little difference in estimated eligibility within this sample. Surprisingly, family obligation good cause separation reform only increased eligibility by five percentage points from a fully traditional program. A traditional program inclusive of part-time workers had the largest impact of the three reform programs with 35% of the sample being eligible under the reform. Finally, approximately 50% of the sample was eligible under a fully reformed program.

The full women's sample and BIPOC women's sample trended almost identical and so will be discussed as a single sample. Women across four of the five programs were 5 to 10 percentage points lower in eligibility than the full men's sample (women were also lower than the BIPOC men sample but at slightly smaller levels). Only with the fully reformed program did women gain parity or slightly overtake men: the full women's sample was estimated at 48.39%; BIPOC women at 47.27%; and the full men's sample at 47.47%. Additionally, the fully-

reformed program increased women's estimated eligibility more than men – 35 points for women compared to 27 for men.

The traditional program and ABP-inclusive reform program held a gap of 7 percentage points between men and women. The family obligation good cause-inclusive reform program was the only reform program that helped women more than men, 6 compared to 4 percentage points, respectively. This program also had the smallest disparity between women and men at just 5 percentage points, among reform programs. The part-time-inclusive reform program provided the largest increase among the reform programs for men and women. Women more than doubled in their estimated eligibility. However this reform actually increased the gap between men and women to 8 percentage points.

The most pressing outcome of these results is the incredibly low estimated eligibility in a traditional program for women at just 13% and the large gap between women and men's eligibility in this type of program at almost ten percentage points. This results also showed that nonmonetary reforms were more impactful to increase women's eligibility but also that implementing both good cause and part-time inclusive reforms caused an additional 10 percentage points increase from either single reform program for women. Finally, and possibly most importantly, the fully reformed program is the only program that brings parity between the samples.

## **How individual and work characteristics affect the gender gap under UI reforms: Methods and Results**

### Probit Models

The probit models help to control for factors, other than gender, that may affect the estimated eligibility of workers for UI programs. Specifically, this study will explore personal characteristics in one model and then personal and work characteristics in a second model. This allows the conversation to broaden to consider workers and their nonwork-related lives instead of just their work situations; then, how that intersects with the UI program and reforms. A probit model is utilized due to the binary nature of the dependent variables instead of a linear regression model. All results were then converted to average marginal effects so they could be interpreted similarly to a linear regression model.



All models were run against five dependent variables: eligibility with and without reforms, as above. This will help to show any difference among characteristics that are important for eligibility among the different reform programs. The sample is of observations entering unemployment spells in  $t+1$  in years 2014 – 2016.

*Model 1 – personal characteristics*

$$PR(\text{Eligible})_{i,t+1,s} = B1\text{Women} + B2\text{demographics} + B3\text{children} + B4\text{year} + E$$

$PR(\text{Eligible})$  is a binary of 1=eligible and 0=not eligible based on whichever program is being used as the dependent variable at the individual level for the time  $t+1$  in state  $s$ . All coefficients are also at the individual level at time  $t+1$ . Women stands for three female variables and two male variables which are the key analysis variables in this model: white women, BIPOC women, Latina women, BIPOC men, and Latino men. The comparison group in this case is white men. Demographics include race and ethnicity, age and age squared, and education variables. High school diploma-level education is omitted as the reference group. Children includes three variables: whether any child was under the age of 3; and two interaction variables for men and women with children. Metro status, region and year are included in the model as controls and are not reported in the results. Additionally, state fixed effects and time-varying annual state-level unemployment rates are included and the entire model is weighted with person weights.

*Model 2 – personal and work characteristics*

$$PR(\text{Eligible})_{i,t+1,s} = B1\text{Women} + B2\text{demographics} + B3\text{children} + B4\text{work} + B5\text{industry} + E$$

The dependent variables, Women, demographics, and children variables are all the same from Model 1. Work includes variables if someone was union-affiliated in their most recent job, if they worked for minimum wage (\$10/hr or less), and a continuous variable representing average number of hours worked per week. Industry includes four indicator variables: manufacturing, personal care, services, and construction, where the reference group is all other occupations (e.g., agricultural, managerial, education, etc.). Like Model 1, region, year and metro

status are controlled for as well as state fixed effects and time-varying annual state-level unemployment rates. The entire model is weighted with person weights.

### Probit Results

Probit model results are reported in two tables. **Table Q** shows results when only considering personal characteristics and **Table R** shows results when considering personal and work characteristics.

#### *Model 1*

**Table Q** has five columns utilizing the same hypothetical programs from the simulation models as dependent variables with controlling variables related to a worker's personal life. State fixed effects, year, region and metro status are also controlled for. Demographics, education levels, and child variables are reported in the table. A total of 10,622 unemployment spells were analyzed. Some observations were missing metro status or region and were dropped from analysis. The dependent variable mean is also reported for conversion from percentage points to percent interpretations.

White and BIPOC women were 21.8 and 21.3 percentage points, respectively, significantly less likely than white men to be eligible for a fully traditional program (column 1). Latina women did not have a significant disparity compared to white men. Not surprisingly age and age squared were highly significant: in this model, age acts as a proxy for experience – an important aspect to labor models. Being single did not have a significant effect and only women with children faced a significant disparity in eligibility of benefits by 13.4 percentage points as compared to any gender without children. Interestingly, having a child under three did not have a significant impact in this model. Finally, among education levels only the no high school diploma coefficient was significant: individuals without a high school diploma were 19 percentage points more likely to be eligible for UI than individuals with a high school diploma in this program.

Columns 2 through 4 show the individual reform programs. Women's eligibility was quite different among these programs: an ABP-inclusive program *increased* the disparity in white and BIPOC women's eligibility to 24.2 percentage points less likely than white men to be eligible; a part-time inclusive program did not have a significant effect for any of the women

coefficients; and a family obligation good cause reform program *decreased* the disparity in white women's eligibility to 16 percentage points less likely than white men to be eligible compared to the traditional program however BIPOC women no longer faced a significant effect. Among all three single-reform programs, no high school diploma continued to be a factor to increase likelihood of eligibility at similar rates and at a significant level. Additionally, age and age squared remained significant at similar, positive levels. Finally, the child related variables had interesting trends. Women with children became less significant and with a smaller impact across the reform programs, and in the part-time program was not significant. However in the part-time program, any child under three became significant at the 95% level and in the family good cause reform program it became significant at the 99% level. Having a child under 3 decreased the likelihood of being eligible for the part-time program by 14 percentage points while it increased the likelihood of being eligible for the good cause reform program by 11.3 percentage points.

The fully-reformed program model (column 5) was the only model where all three women variables had positive coefficients; however, none of them were significant. White women had approximately double the coefficient BIPOC women had while Latina women remained extremely small. Like the previous four models, age, age squared, and no high school diploma were significant. In this program, a Bachelor's degree had a significant negative impact on the likelihood of being eligible by 17.4 percentage points compared to a worker with just a high school diploma. This was the largest effect of the five programs and one of only two programs where any education besides no high school diploma was significant. Finally, any child under 3 had the largest positive effect of 12.7 percentage points but at only the 90% significance level.

Ultimately Model 1 revealed several interesting results. In terms of the focus group of this study – women – white and BIPOC women trended similarly while Latina women had very small and insignificant effects. White and BIPOC women had similar disparities in the traditional and ABP program but interestingly BIPOC women lost any significant disparities in the other two reform programs and the fully-reformed program. For both white and BIPOC women, the fully-reformed program was the only program that had a positive effect over white men but it was not significant.

Second, a worker with no high school degree or equivalent actually had a higher likelihood of eligibility across all five programs than a worker with a high school degree. This

might be for one of several reasons. Again, age might be capturing some of the educational effects for the higher levels like BA and MA-holding workers. Or, since this model does not account for industry and therefore education captures the effects from these omitted variables. Someone without a high school degree may be more likely to hold a job in construction or manufacturing versus someone with a high school degree who may work in the care or service industry.

Finally, and maybe most compelling for a study on women, results showed what previous research has shown: women face negative effects when they have children that men do not. Having children for women had a negative effect across all five programs: these effects ranged in impact and significance while men with children never was significant and, in some models, as much as one-tenth the impact as women. Also interesting was the behavior of the any child under three variable which only had an effect on the part-time, good cause, and fully-reformed programs but varied in size and direction.

### *Model 2*

**Table R** has the same five dependent variables as **Table Q**; however, work characteristics are now included. State fixed effects, year, region, and metro status are all controlled for. Demographics, education levels, work, and industry are reported in the table. 10,029 spells were analyzed in this set of specifications. Some observations were missing union status and were therefore dropped from the analysis as well as dropped observations from Model 1's specifications.

Column 6 reports on a traditional program. None of the three women's variables were significant; however BIPOC women showed a larger disparity than white women, 5.4 and 1.1 percentage points, respectively. Latina women had a positive effect compared to white men at 1.6 percentage points – both a change from the results in Model 1. Similar to Model 1, age, age squared and no high school diploma continued to have positive significant effects. Working for minimum wage had a significant effect of 11.7 percentage points less likely to be eligible as compared to higher-wage workers. Union coverage was significant but interestingly with a negative effect on eligibility likelihood – this is quite opposite of previous research (e.g. Kalleberg, Reskin, and Hudson 2000). Finally, at one of the higher rates across all five specifications, hours worked per week was significant with an effect of 4.5 percentage point

increase in likelihood per additional hour worked. Among the industry variables, personal care jobs and manufacturing jobs were not significant. Construction workers faced a positive impact on their likelihood of eligibility in a traditional program by 29.7 percentage points while service workers faced a disparity on their likelihood by 32.4 percentage points.

The ABP-inclusive reform program (column 7) trended similar to the traditional program in many ways. White and BIPOC women continued to face insignificant disparities but, in this program, these effects were even larger than the traditional program. Latina women also kept their positive insignificant effect which also increased from the traditional program. Age, age squared and no high school diploma remained highly significant at similar levels as did all the work characteristics that were significant in the traditional program.

The part-time inclusive reform program (column 8) showed quite different results compared to the other specifications. All women's coefficients decreased in size – BIPOC women from 8.2 percentage points in the ABP program to 2.1 percentage points – while remaining insignificant and with the same sign as columns 6 and 7. There were also significant negative effects for individuals who held a bachelor's degree compared to individuals with a high school diploma by 10.9 percentage points while no high school diploma still held a significant positive effect on eligibility. This is the only specification that having a master's degree or higher also had a significant effect – 13.4 percentage points less likely to be eligible for a part-time reform program than a worker with a high school diploma. The effect of hours worked per week decreased drastically from approximately 5 percentage points to 0.3 percentage points. Minimum wage also decreased in its effect by 2 percentage points and union coverage became insignificant. Finally, personal care jobs became significant with an effect of 26 percentage points less likely to be eligible for a part-time reform program; service workers remained disadvantaged at a slightly lower rate of 20.4 percentage points; and construction workers maintained their premium at the highest rate of any specification – 37.8 percentage points. Manufacturing jobs remained insignificant.

Column 9 shows the results for a family obligation good cause reform inclusive program. For the first time in Model 2, all women's variables have a positive effect. White women at 6.6 percentage points and BIPOC women at 4.7 percentage points more likely than white men to be eligible for this program. Latina women decreased quite drastically to 1.1 percentage points more likely to be eligible than white men. This specification trended similar to the traditional and ABP

programs. Age, age squared and no high school diploma continued to have strong positive effects on eligibility. Hours worked per week had the highest effect of any specification at 5.2 percentage points more likely to be eligible for the good cause reform program for every additional hour worked. Working at minimum wage or with union coverage both had significant negative effects as did service industry jobs though service workers faced the smallest disparity of the specifications with this program. Finally, construction jobs remained a significant positive effect on eligibility likelihood by 26.8 percentage points.

The most interesting results among Model 2 specifications came from column 10: the fully-reformed program. The three women subsamples had quite different results. White women had the highest premium of 7.5 percentage points as compared to white men. This is an increase from the good cause reform program (the only other positive coefficient specification). BIPOC women maintained their premium from the good cause reform program of 4.7 percentage points as compared to white men. Finally, Latina women faced the lowest premium of all specifications at just 0.4 percentage points. However, all variables still remained insignificant. Age and no high school diploma remained significant with positive effects. Having a bachelor's degree became significant with the largest disparity of the specifications at 18 percentage points less likely to be eligible for a fully-reformed program than someone with a high school diploma. Additionally having a child under 3 had a significant positive premium of 13.6 percentage points more likely to be eligible. Quite different from the other four specifications, minimum wage, hours worked and union status all did not have a significant effect. Among industries, only construction remained significant. Similar to the other models, construction workers were 28.1 percentage points more likely to be eligible than other workers.

Model 2 provided many expected results and a few surprising ones. First, adding work characteristics drew away the effect gender had on eligibility. However white, BIPOC and Latina women all fared quite differently in whether a disparity or premium and at what size of effect their racial identify had on their likelihood of eligibility for any given program. White and BIPOC women only gained a premium in the good cause reform and fully-reformed program while Latina women had a premium across all specifications. BIPOC women also faced larger disparities and smaller premiums than white women did.

Second, it was surprising that personal care jobs did not have a significant effect on eligibility. The hypothesis had been that personal care jobs would behave similarly to service

jobs based on the similarities between the industries. However, effects may have been controlled for in work variables like pay and hours per week. Service and construction results were on par with past research. Though construction is cyclical as an industry, it functions well with the UI system and workers often easily access benefits; but, service workers not so much. Maybe most fascinating of this discussion is that part-time and family obligation good cause reform reduced the disparity for service workers by almost half yet there was no significant effect within the fully-reformed program.

Third, briefly, education trended very similar to Model 1. Having no high school diploma continued to be strongly significant and at similar if not slightly higher levels in Model 2 than Model 1. Even when accounting for hours worked per week and industry, having less than a high school degree increases a worker's likelihood of eligibility compared to a worker with a high school diploma. Having a bachelors was associated with a significant negative affect with the part-time reform program and the fully-reformed program and in the part-time reform program a master's degree had an even larger negative effect. This is a truly surprising effect.

Finally, and maybe the most compelling from the Model 2 results, were the results from column 10. A fully-reformed UI program had no significant effects due to gender or race for women nor did economic characteristics like hours and pay matter. In some ways, in a fully-reformed program earnings and hours worked per week should not matter as much because two of three reforms specifically focus on alleviating those barriers. Yet, more so, this may be a showing of heavier omitted variable bias and the need for additional controls when considering a fully-reformed program compared to the more traditional programs.

### Limitations

The simulation model has three primary limitations. First it only accounts for four of the five requirements to be eligible for UI benefits. It does not account for whether someone is in an insured job at time of separation. Not accounting for job status is in-line with previous research as often the methods of identification or data are too messy for accurate categorization. However, among this sample, approximately 10% of individuals who had a good cause separation reported working in a non-insured job.<sup>9</sup> While results could still be potentially overestimated, based on the percent of the sample, it should be small. Second, creation of key variables in the model

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<sup>9</sup> See Table 1 in Appendix B

could still lead to bias. Part-time availability was proxied using past work history. This potentially could have been better specified by also controlling for the reported reason why that individual was working part-time, and if they specified they wanted to be full-time, they could have been marked as meeting the full-time work requirement. Third, moving from the SIPP categories of job separation to categories that align with UI was messy. The primary concern among the author-coded UI categories is in regard to several ‘*other*’ categories in the job separation question as well as missing entries for the variable. The final model specification is the most generous model that could be specified.<sup>10</sup>

These limitations lead to measurement error in the probit models. This error causes bias by overestimating standard errors and therefore may not be capturing all significant effects. Second, this model is limited by the available variables. For eligibility considerations, controlling for if a vehicle is owned, multi-generational households, and debt or total savings could have helped specify both models better. Finally, the SIPP dataset is survey data which means its data and variables may be biased depending on how each individual interpreted and answered its questions.

## Discussion

UI continues to be an important and heavily used social insurance program to provide relief to individuals who find themselves unemployed through no fault of their own. However, the program is burdened by inequities in access, especially among already disadvantaged workers like low-wage, low-skilled, or part-time workers. Specifically, women have been found to have lower estimated eligibility and lower likelihoods of being eligible and receiving benefits. This study added to the literature by focusing on women in a more modern and generalizable sample. Results from this study show that indeed nonmonetary criteria are the prevailing barrier women face in UI programs.

The estimated simulation results showed that women in this sample were less eligible than men across all program types except a fully-reformed program where the genders reached parity. With each reform, eligibility did increase for women but also for men at equal or higher rates. This shows the increase in nontraditional work so many workers face, especially part-time

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<sup>10</sup> See Table 2 in Appendix B



work. However, if the ultimate policy goal is to reduce the disparity between eligibility for women and men, only a fully-reformed program – inclusive of all three reforms – will eliminate the gap. As of 2019, 15 states had implemented all three reforms and 20 states had implemented a combination of any two.

The probit model provided several key results. First, the gender gap in eligibility is likely due to the constraints women face in their labor market attachment. Hours worked per week work had negative effects: women work part-time at higher rates than men. Service industry workers faced lower likelihoods of UI eligibility while construction workers faced higher likelihoods: women are overrepresented in the service industry while underrepresented in construction fields. Second, even when controlling for personal and work characteristics, a fully-reformed program provided for higher likelihood rates for women than men, across all three subsamples, though insignificant. This leads to the same conclusion as the simulation models – to most help women be eligible and, hopefully, ultimately access UI benefits, multiple reforms must be implemented.

To expand on this and the corresponding literature, future studies should focus on including the missing pieces between estimated eligibility and reciprocity which is application decisions and the approval process. Finding a way to see how processing applications at the state or regional level affects receipt would help ensure future studies are more accurate. Additionally, studies more focused on identity are needed. Working with data with more detailed racial categories could help provide more specific results for various identity and racial groups.

Ultimately, this study points to a need for a more generous UI program in order to both reduce disparities among different populations but also increase the overall access workers have to the program. As a core social insurance program, UI is only as effective as its coverage. With the changing nature of work, now is the time to reform programs to be more equitable and more sustainable for women and for all.

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Figure A1: Average Unemployment Rate and Involuntary Part-Time Rate

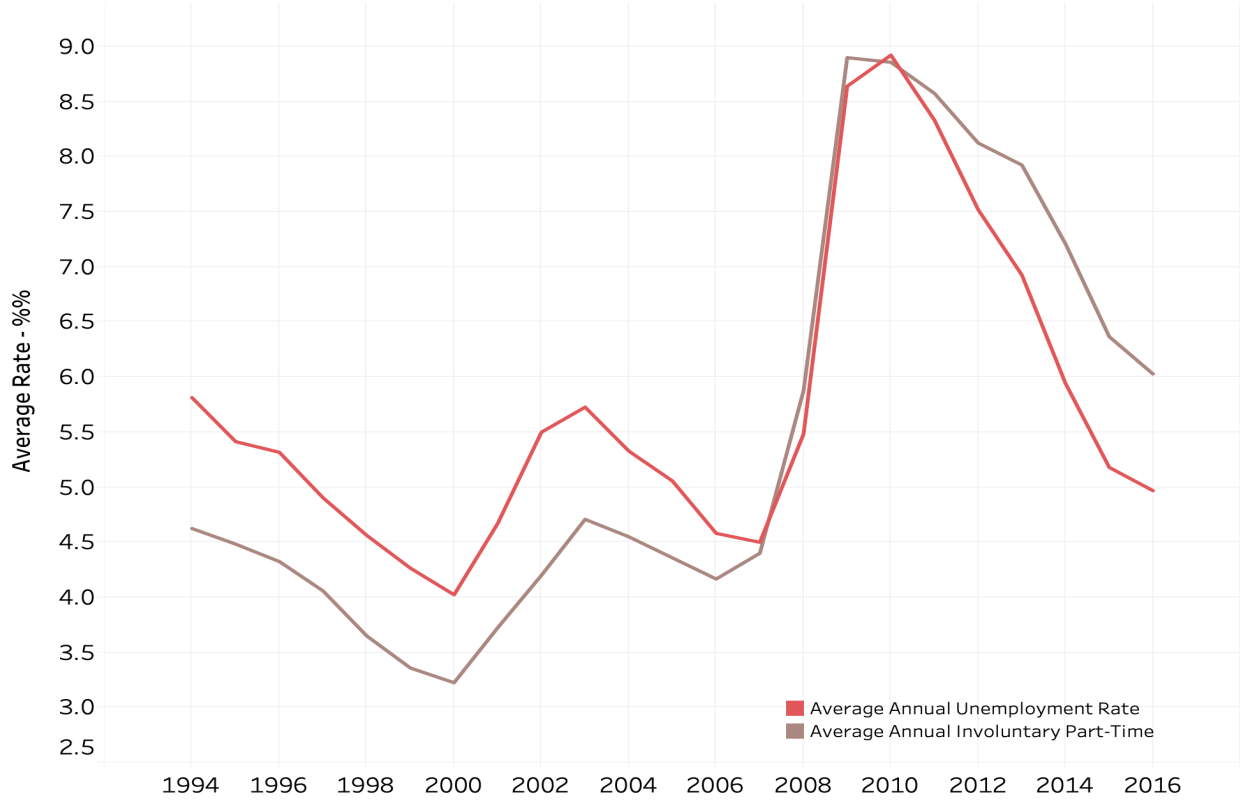


Figure A2: Involuntary Part-Time Work Rate - Total and by Type

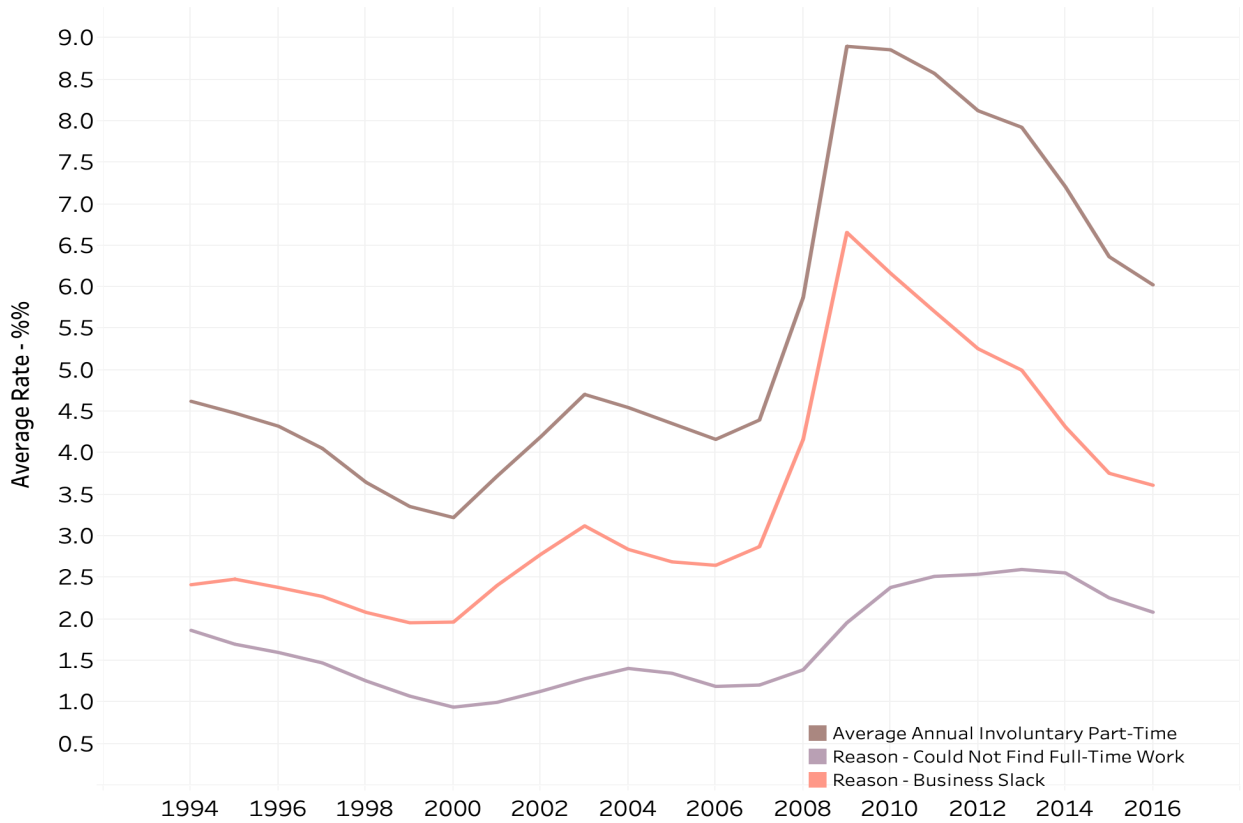


Figure B: Change in Productivity Growth and Hourly Compensation Growth

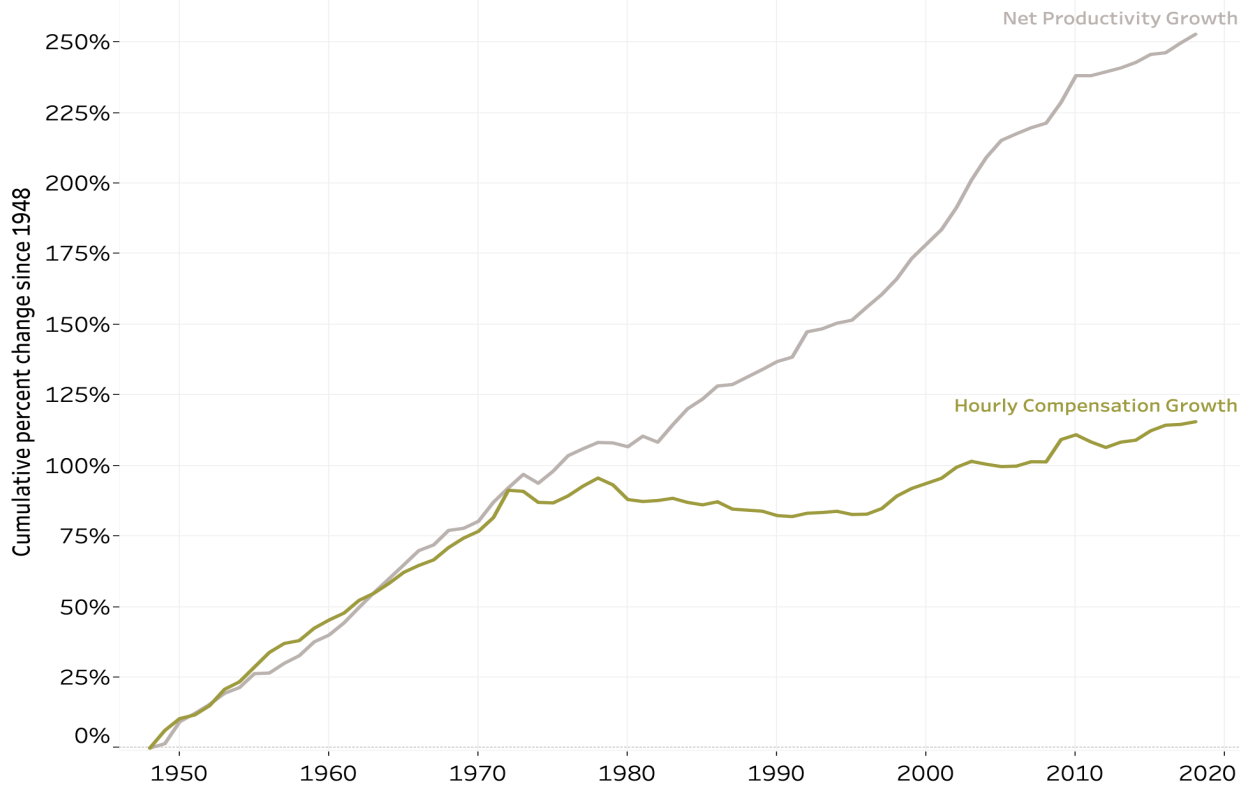
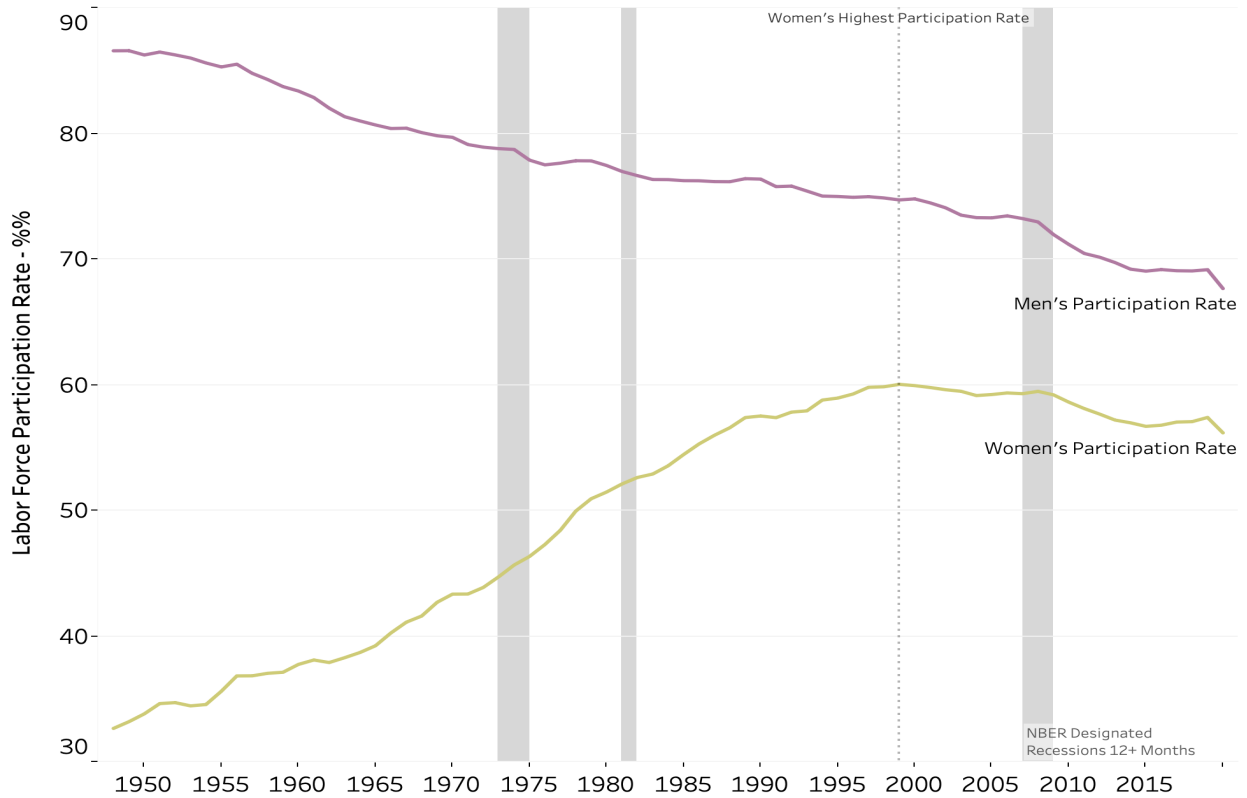
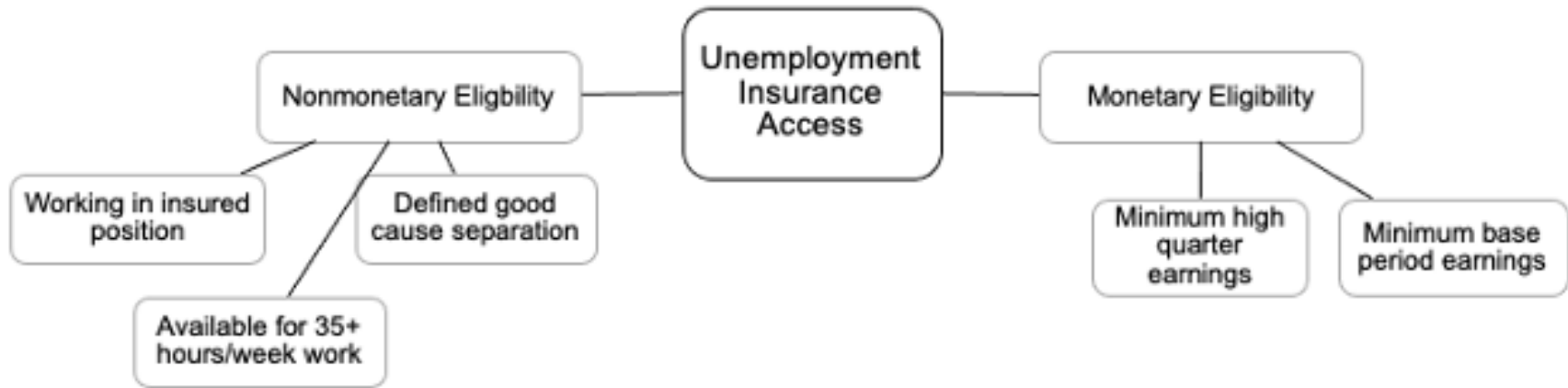


Figure C: Labor Force Participation by Gender, 1948 - 2020



**Figure D: Unemployment Insurance Eligibility**



**Figure E: Key Terms and Definitions Related to UI Rates**

Term	Definition
Eligibility Rate	The percent of unemployed individuals who meet all criteria for UI
Application Rate	The percent of unemployed individuals who apply for UI
Reciency Rate	A formal measure of the proportion of individuals receiving UI benefits out of the total unemployed population
Take Up Rate	The percent of unemployed individuals who actually receive UI benefits after applying



Figure F: National Average Reciprocity Rate

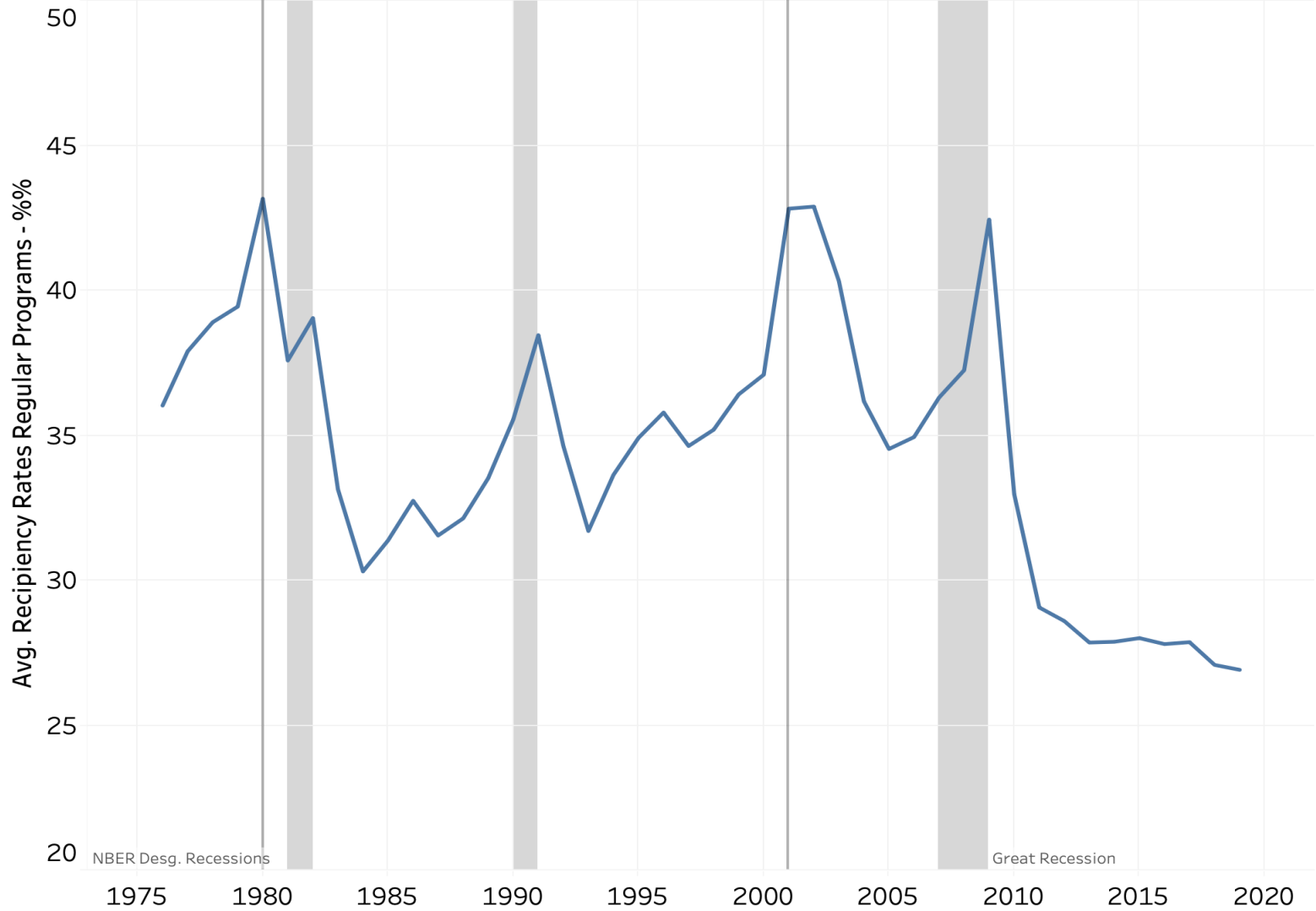


Table G: Job Separation by UI Program Designation

	Count	Percent
<u>Involuntary Separations</u>		
plant or company closed or moved	364	3.29%
slack bus conditions	825	7.45%
position abolished	247	2.23%
temp/seasonal job done	1,079	9.74%
own illness	357	3.22%
own injury	194	1.75%
other involuntary reason	600	5.42%
missing value recodes	1,138	10.27%
<b>Total</b>	<b>4,804</b>	<b>43.37%</b>
<u>Voluntary Separations</u>		
fired	757	6.83%
quit for another job	1,703	15.37%
unsatisfied with conditions	625	5.64%
quit for other reason	776	7.00%
retired	60	0.54%
school/training	935	8.44%
<b>Total</b>	<b>4,856</b>	<b>43.82%</b>
<u>Good Cause Reform Separations</u>		
childcare issues	165	1.49%
personal/family obligations	435	3.93%
other personal reason	819	7.39%
<b>Total</b>	<b>1419</b>	<b>12.81%</b>

Data source: 2014 - 2016 SIPP

Table H: Select Characteristics by SubSample

Variable	Anyone Entering an Unemployment Spell					
	Full Sample		Women		BIPOC Women	
	Mean		Mean		Mean	
Female	53.24%	***	100.00%		100.00%	
Asian	4.21%	***	4.27%		15.84%	
Black	16.21%	***	17.53%	***	64.99%	
Multiple Races	4.96%	***	5.17%		19.17%	
White	74.62%	***	73.02%	***	0.00%	
Hispanic	18.50%		18.96%		7.92%	***
No High School Diploma	11.43%		10.41%	***	10.25%	
High School Diploma	28.09%		23.89%	***	24.89%	
Bachelors Degree	17.08%	***	18.62%	***	16.78%	**
Masters Degree and Higher	7.18%	***	8.46%	***	8.99%	
Age	33.77	***	33.82		33.53	
Single	65.84%	***	63.95%	***	72.60%	***
Family Size	2.92	***	3.06	***	3.21	***
Number of Kids	1.19		1.32	***	1.47	***
WIC Receipt	3.19%	***	5.50%	***	6.56%	**
SNAP Receipt	20.62%	***	24.61%	***	33.85%	***
TANF Receipt	0.79%	***	1.20%	***	1.82%	**
EITC Receipt	25.13%	***	30.58%	***	36.21%	***
UI Receipt	19.88%	***	17.96%		12.24%	*
Checking Account	57.17%	***	58.46%	***	55.41%	***
Savings Account	48.85%	***	50.35%	***	44.78%	***
Student Loan Debt	22.76%	***	25.03%	***	25.60%	
Credit Card Debt	26.83%	***	28.37%	***	23.91%	***
Union Member	5.65%	***	5.44%		5.64%	
Total Jobs in Month	1.020	***	1.021		1.014	**
Works Part Time	57.55%	***	63.43%	***	61.47%	*
Earnings At Minimum Wage	66.40%	***	71.01%	***	72.09%	
0 Months with \$0 Earnings	87.16%	***	86.69%		89.94%	***
1 to 6 Months with \$0 Earnings	8.35%	***	8.83%	**	6.79%	***
1+ Years Missing Earnings	2.54%	***	2.32%		1.63%	**
Annual Earnings	\$14,607.78	***	\$12,441.85	***	\$11,924.09	
Lowest Quintile	\$1,028.32		\$922.25		\$1,158.57	
Second Lowest Quintile	\$3,918.19		\$3,474.80		\$3,568.39	
Median Quintile	\$7,996.85		\$7,060.74		\$7,122.52	
Second Highest Quintile	\$15,058.51		\$13,104.23		\$12,712.47	
Highest Quintile	\$45,023.56		\$37,632.91		\$34,880.27	
Comparison Group	Employed		Men		White Women	
Total Number of Spells	11,079		5,898		1,591	

Stars denote a significant difference as compared to the noted comparison group.

\* 90% confidence \*\* 95% confidence \*\*\* 99% confidence

Table J: UI Program Characteristics January 2016

State	Base Period Requirement	Benefit Week Minimum	Benefit Week Maximum	Waiting Period for Benefits	ABP Reform	Family Obligation Good Cause Reform	Part-Time Work History Reform	Region
AK	\$2,500	16	26	Yes	Yes	Yes	No	West
AL	\$2,314	15	26	Yes	No	No	No	South
AR	\$2,835	9	20	Yes	Yes	Yes	Yes	South
AZ	\$4,710	13	26	Yes	Yes	Yes	No	West
CA	\$1,125	14	26	Yes	Yes	Yes	Yes	West
CO	\$2,500	13	26	Yes	Yes	Yes	Yes	West
CT	\$600	26	26	No	Yes	Yes	No	Northeast
DE	\$720	24	26	Yes	Yes	Yes	Yes	South
FL	\$3,400	9	23	Yes	No	No	Yes	South
GA	\$1,760	6	20	No	Yes	No	Yes	South
HI	\$130	26	26	Yes	Yes	Yes	Yes	West
IA	\$2,220	7	26	No	Yes	No	Yes	Midwest
ID	\$2,340	10	26	Yes	Yes	No	Yes	West
IL	\$1,600	26	26	Yes	Yes	Yes	No	Midwest
IN	\$4,200	8	26	Yes	Yes	No	No	Midwest
KS	\$3,540	10	26	Yes	Yes	Yes	Yes	Midwest
KY	\$3,230	15	26	Yes	No	No	No	South
LA	\$1,200	26	26	Yes	No	No	Yes	South
MA	\$3,900	10	30	Yes	Yes	Yes	Yes	Northeast
MD	\$1,800	26	26	No	Yes	No	Yes	South
ME	\$4,584	15	26	Yes	Yes	Yes	Yes	Northeast
MI	\$4,743	14	20	No	Yes	No	No	Midwest
MN	\$2,700	11	26	Yes	Yes	Yes	Yes	Midwest
MO	\$2,250	13	20	Yes	No	No	No	Midwest
MS	\$1,200	13	26	Yes	No	No	No	South
MT	\$2,670	8	28	Yes	Yes	No	Yes	West
NC	\$1,560	12	20	Yes	Yes	No	No	South
ND	\$2,795	12	26	Yes	No	No	No	Midwest
NE	\$4,108	1	26	Yes	Yes	No	Yes	Midwest
NH	\$2,800	26	26	Yes	Yes	Yes	Yes	Northeast
NJ	\$3,360	1	26	No	Yes	No	Yes	Northeast
NM	\$1,921	14	26	Yes	Yes	No	No	West
NV	\$600	12	26	No	Yes	Yes	Yes	West
NY	\$2,850	26	26	Yes	Yes	Yes	Yes	Northeast
OH	\$4,860	20	26	Yes	Yes	Yes	Yes	Midwest
OK	\$1,500	16	26	Yes	Yes	Yes	Yes	South
OR	\$1,000	3	26	Yes	Yes	Yes	No	West
PA	\$3,391	18	26	Yes	No	Yes	No	Northeast
RI	\$3,840	17	26	Yes	Yes	Yes	No	Northeast
SC	\$4,455	13	20	Yes	Yes	Yes	Yes	South
SD	\$1,288	15	26	Yes	Yes	No	Yes	Midwest
TN	\$1,560	10	26	Yes	No	No	No	South
TX	\$2,405	10	26	Yes	No	Yes	No	South
UT	\$3,500	10	26	Yes	Yes	Yes	No	West
VA	\$3,000	12	26	Yes	Yes	Yes	No	South
VT	\$3,341	21	26	Yes	Yes	No	Yes	Northeast
WA	\$0	1	26	Yes	Yes	Yes	Yes	West
WI	\$1,890	14	26	Yes	Yes	Yes	No	Midwest
WV	\$2,200	26	26	Yes	Yes	Yes	No	South
WY	\$3,550	11	26	No	No	No	Yes	West

Data source: Author's own calculations from DOL Annual Reports

Figure K: Count of States with Implemented Reforms

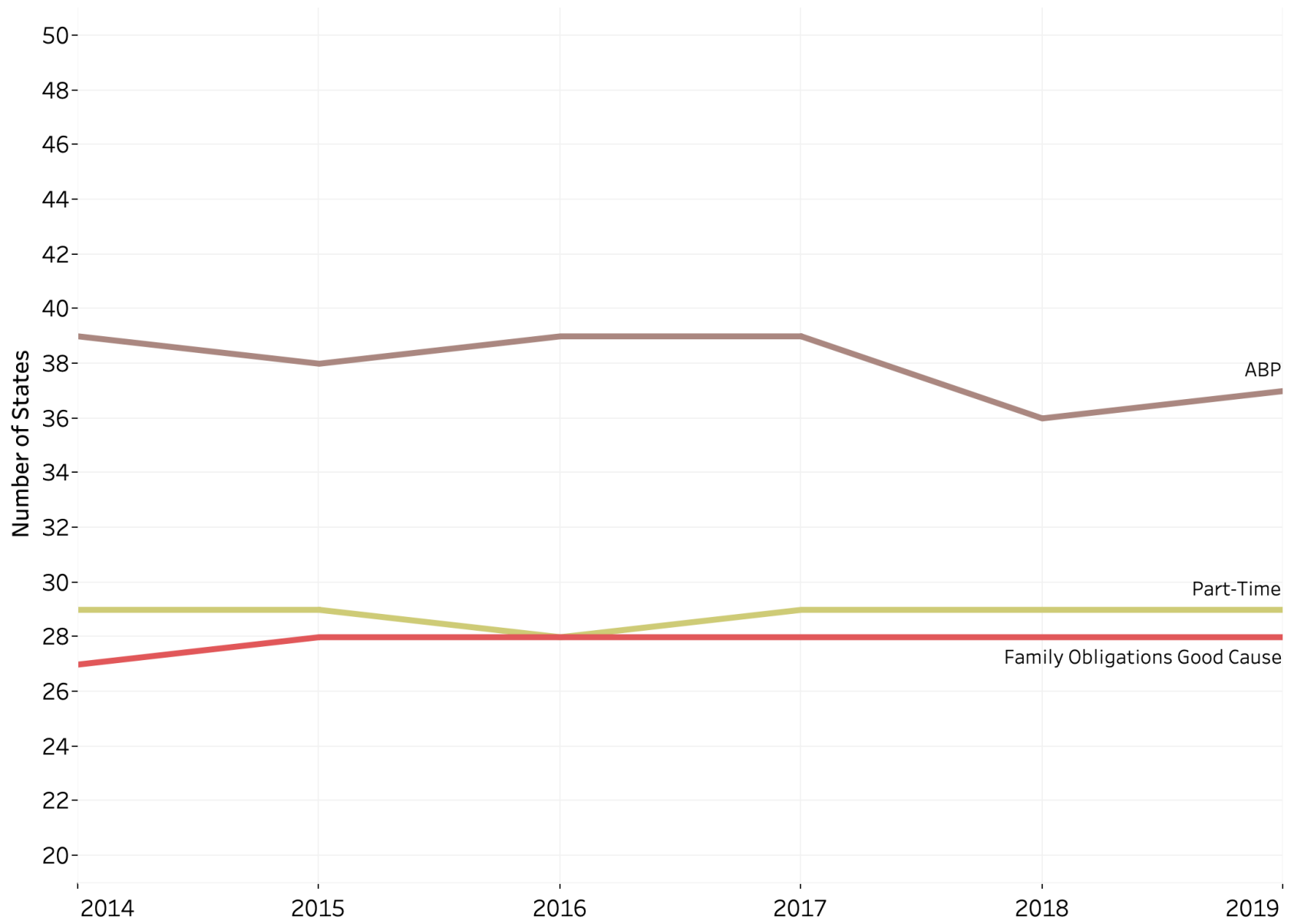


Figure L: Average Annual Reciprocity Rate by Region, 2014 - 2019

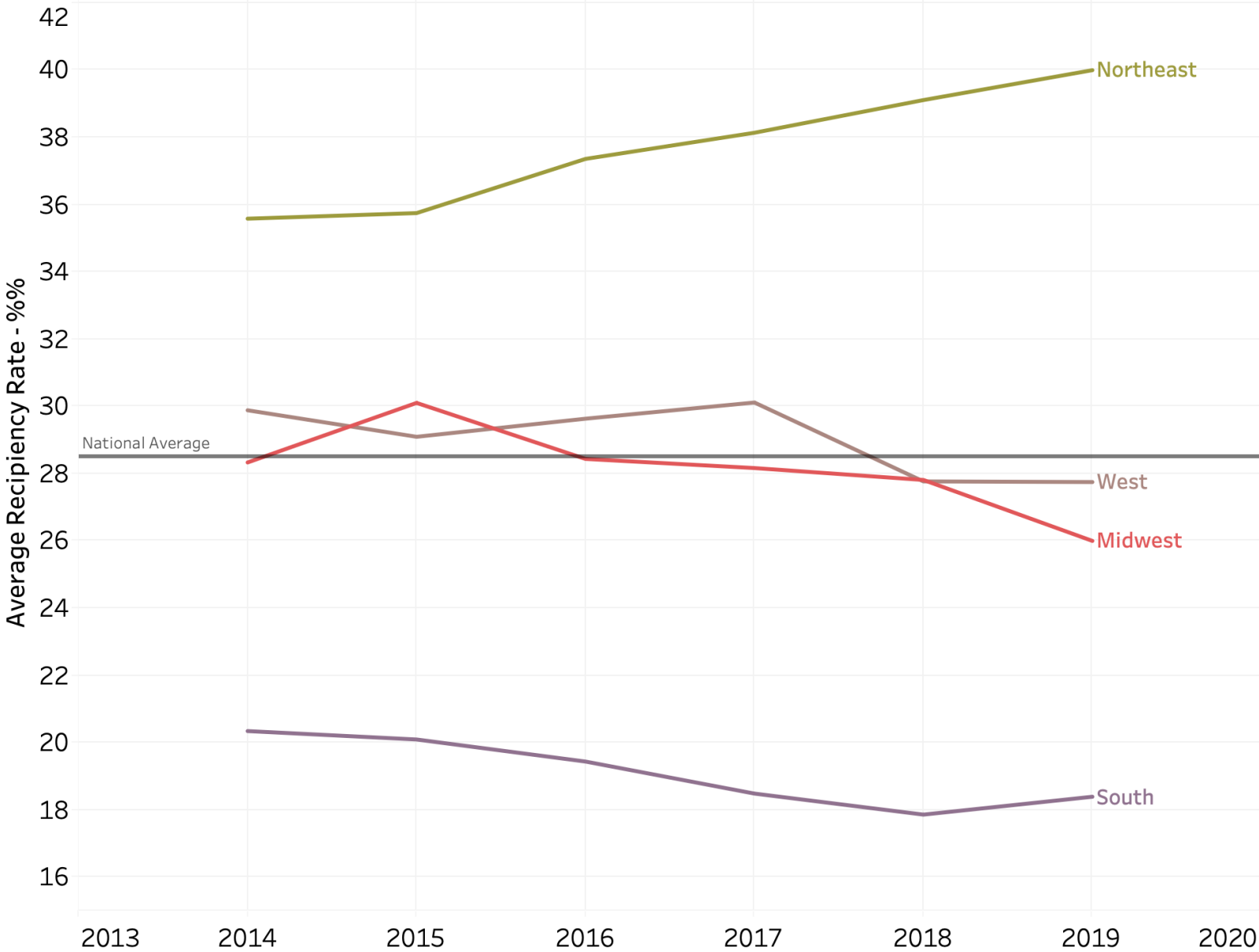


Table M: Simulation Programs

	Traditional Program	ABP Reform Program	Part-Time Reform Program	Family Reasons Good Cause Reform Program	Fully Reformed Program
Monetary Criteria	TBP	ABP	TBP	TBP	ABP
Nonmonetary Criteria: Work Availability	Full-Time	Full-Time	Part-Time	Full-Time	Part-Time
Nonmonetary Criteria: Job Separation	Involuntary Only	Involuntary Only	Involuntary Only	Involuntary or Family Obligations	Involuntary or Family Obligations
Nonmonetary Criteria: Job Type	Insured	Insured	Insured	Insured	Insured

Table P: Simulated Eligibility by Program Type and Demographic

	Full Sample	Women		Men	
		All	BIPOC	All	BIPOC
Traditional Program	16.87%	13.43%	13.24%	20.85%	18.67%
Alternate Base Period (ABP) Reform Only	17.42%	13.87%	13.63%	21.53%	18.93%
Family Obligations Good Cause Reform Only	21.16%	18.93%	19.03%	23.75%	21.75%
Part-Time Reform Only	34.76%	30.95%	30.85%	39.17%	38.95%
Fully-Reformed Program	47.96%	48.39%	47.27%	47.47%	46.33%

Table N1: State Monetary Criteria and Minimum Wage

	High Quarter Requirement	Base Period Earnings Requirement	State Minimum Wage	35 hrs/week on State Minimum Wage Annual Salary	20 hrs/week on State Minimum Wage Annual Salary
Average	\$1,004.04	\$2,530.90	\$8.01	\$14,585.84	\$8,334.77
Max	\$3,162.00	\$4,860.00	\$10.00	\$18,200.00	\$10,400.00
Min	\$0.00	\$0.00	\$5.15	\$9,373.00	\$5,356.00
State					
AK	\$0	\$2,500	\$9.75	\$17,745	\$10,140
AL	\$0	\$2,314	\$7.25	\$13,195	\$7,540
AR	\$0	\$2,835	\$8.00	\$14,560	\$8,320
AZ	\$3,140	\$4,710	\$8.05	\$14,651	\$8,372
CA	\$900	\$1,125	\$10.00	\$18,200	\$10,400
CO	\$1,084	\$2,500	\$8.31	\$15,124	\$8,642
CT	\$0	\$600	\$9.60	\$17,472	\$9,984
DE	\$0	\$720	\$8.25	\$15,015	\$8,580
FL	\$2,267	\$3,400	\$8.05	\$14,651	\$8,372
GA	\$924	\$1,760	\$5.15	\$9,373	\$5,356
HI	\$0	\$130	\$8.50	\$15,470	\$8,840
IA	\$1,480	\$2,220	\$7.25	\$13,195	\$7,540
ID	\$1,872	\$2,340	\$7.25	\$13,195	\$7,540
IL	\$0	\$1,600	\$8.25	\$15,015	\$8,580
IN	\$0	\$4,200	\$7.25	\$13,195	\$7,540
KS	\$2,777	\$3,540	\$7.25	\$13,195	\$7,540
KY	\$2,154	\$3,230	\$7.25	\$13,195	\$7,540
LA	\$800	\$1,200	\$7.25	\$13,195	\$7,540
MA	\$0	\$3,900	\$10.00	\$18,200	\$10,400
MD	\$1,176	\$1,800	\$8.75	\$15,925	\$9,100
ME	\$1,528	\$4,584	\$7.50	\$13,650	\$7,800
MI	\$3,162	\$4,743	\$8.50	\$15,470	\$8,840
MN	\$0	\$2,700	\$9.50	\$17,290	\$9,880
MO	\$1,500	\$2,250	\$7.65	\$13,923	\$7,956
MS	\$780	\$1,200	\$7.25	\$13,195	\$7,540
MT	\$1,780	\$2,670	\$8.05	\$14,651	\$8,372
NC	\$0	\$1,560	\$7.25	\$13,195	\$7,540
ND	\$0	\$2,795	\$7.25	\$13,195	\$7,540
NE	\$1,850	\$4,108	\$9.00	\$16,380	\$9,360
NH	\$1,400	\$2,800	\$7.25	\$13,195	\$7,540
NJ	\$0	\$3,360	\$8.38	\$15,252	\$8,715
NM	\$1,920	\$1,921	\$7.50	\$13,650	\$7,800
NV	\$400	\$600	\$8.25	\$15,015	\$8,580
NY	\$1,900	\$2,850	\$9.00	\$16,380	\$9,360
OH	\$0	\$4,860	\$8.10	\$14,742	\$8,424
OK	\$0	\$1,500	\$7.25	\$13,195	\$7,540
OR	\$667	\$1,000	\$9.75	\$17,745	\$10,140
PA	\$1,688	\$3,391	\$7.25	\$13,195	\$7,540
RI	\$1,920	\$3,840	\$9.60	\$17,472	\$9,984
SC	\$1,092	\$4,455	\$7.25	\$13,195	\$7,540
SD	\$728	\$1,288	\$8.55	\$15,561	\$8,892
TN	\$780	\$1,560	\$7.25	\$13,195	\$7,540
TX	\$1,613	\$2,405	\$7.25	\$13,195	\$7,540
UT	\$2,334	\$3,500	\$7.25	\$13,195	\$7,540
VA	\$0	\$3,000	\$7.25	\$13,195	\$7,540
VT	\$2,386	\$3,341	\$9.60	\$17,472	\$9,984
WA	\$0	\$0	\$9.47	\$17,235	\$9,849
WI	\$1,350	\$1,890	\$7.25	\$13,195	\$7,540
WV	\$0	\$2,200	\$8.75	\$15,925	\$9,100
WY	\$850	\$3,550	\$5.15	\$9,373	\$5,356

Data Source: Author's own calculations from dataset



Table N2: Base Period and High Quarter Requirements and Sample Earnings

<b>Base Period Requirement</b>			
Minimum Base Period by Quintile	Average	Min	Max
Under 1K (5 states)	\$410.00	\$0	\$720
1K - 2K (13 states)	\$1,492.62	\$1,000	\$1,921
2K - 3K (14 states)	\$2,527.07	\$2,200	\$2,850
3K - 4K (11 states)	\$3,459.27	\$3,000	\$3,900
4K - 5K (7 states)	\$4,522.86	\$4,108	\$4,860

<b>Base Period Earnings</b>			
Annual Earnings by Quintile	Full Sample	Women Only	BIPOC Only
Lowest	\$1,028.32	\$922.25	\$1,158.57
Second Lowest	\$3,918.19	\$3,474.80	\$3,568.39
Median	\$7,996.85	\$7,060.74	\$7,122.52
Second Highest	\$15,058.51	\$13,104.23	\$12,712.47
Highest	\$45,023.56	\$37,632.91	\$34,880.27

<b>High Quarter Requirement</b>			
High Quarter by Quintile	Average	Min	Max
\$0 (10 states)	\$0.00	\$0.00	\$0.00
\$0 - \$700 (10 states)	\$106.70	\$0.00	\$667.00
\$700 - \$1200 (10 states)	\$911.40	\$728.00	\$1,176.00
\$1200 - \$1875 (10 states)	\$1,606.10	\$1,350.00	\$1,872.00
\$1900 - \$3200 (10 states)	\$2,396.00	\$1,900.00	\$3,162.00

<b>High Quarter Earnings</b>			
High Quarter Earnings by Quintile	Full Sample	Women Only	BIPOC Only
Lowest	\$77.61	\$69.15	\$79.71
Second Lowest	\$947.19	\$787.08	\$829.87
Median	\$2,567.53	\$2,128.71	\$2,241.77
Second Highest	\$5,168.70	\$4,421.19	\$4,510.28
Highest	\$14,577.67	\$12,260.41	\$11,199.68

Data Source: Author's own calculations from dataset

**Table Q: Personal Characteristics and UI Program Eligibility**

Probit results converted to average marginal effects

Dependent Variable: Column #	Family				
	Traditional Program 1	ABP Reform Only 2	Part-Time Reform Only 3	Good Cause Reform Only 4	Fully-Reformed Program 5
Comp group: White Men					
White Women	-0.218 ** (0.091)	-0.242 *** (0.088)	-0.103 (0.105)	-0.160 ** (0.077)	0.034 (0.080)
BIPOC Women	-0.213 ** (0.084)	-0.236 *** (0.082)	-0.084 (0.109)	-0.132 (0.082)	0.015 (0.091)
Latina Women	0.003 (0.092)	0.037 (0.101)	0.025 (0.079)	0.003 (0.074)	0.004 (0.072)
BIPOC Men	-0.077 (0.054)	-0.099 * (0.055)	0.037 (0.059)	-0.072 (0.048)	-0.003 (0.047)
Latino Men	0.095 (0.074)	0.094 (0.067)	0.138 ** (0.059)	0.083 (0.063)	0.189 *** (0.057)
Comp group: HS Diploma					
No HS Diploma	0.189 *** (0.056)	0.218 *** (0.057)	0.199 *** (0.046)	0.150 *** (0.054)	0.169 ** (0.068)
BA	0.037 (0.048)	0.028 (0.048)	-0.099 ** (0.044)	0.029 (0.045)	-0.174 *** (0.039)
MA or Higher	0.053 (0.064)	0.061 (0.064)	-0.082 (0.063)	0.032 (0.061)	-0.069 (0.079)
Single	-0.038 (0.067)	-0.030 (0.067)	-0.018 (0.059)	-0.092 (0.062)	-0.074 (0.061)
Age	0.103 *** (0.013)	0.109 *** (0.012)	0.059 *** (0.015)	0.109 *** (0.014)	0.079 *** (0.015)
Age Squared	-0.001 *** (0.000)	-0.001 *** (0.000)	-0.001 *** (0.000)	-0.001 *** (0.000)	-0.001 *** (0.000)
Men with Children	-0.014 (0.048)	-0.011 (0.047)	0.031 (0.058)	-0.052 (0.048)	-0.045 (0.055)
Women with Children	-0.134 ** (0.056)	-0.119 ** (0.060)	-0.098 (0.074)	-0.090 * (0.047)	-0.006 (0.066)
Any Child Under 3	-0.059 (0.046)	-0.049 (0.042)	-0.139 ** (0.061)	0.113 *** (0.044)	0.127 * (0.068)
Depvar Mean	0.1682	0.1738	0.3570	0.2108	0.4899
Observations	10,622	10,622	10,622	10,622	10,622

Controlled for: state fixed effects, year, region, and urban/rural status

Robust standard errors in parentheses

\*\*\* p&lt;0.01, \*\* p&lt;0.05, \* p&lt;0.1

**Table R: Personal and Work Characteristics and UI Program Eligibility**

Probit results converted to average marginal effects

Dependent Variable: Column #	Family				
	Traditional Program 6	ABP Reform Only 7	Part-Time Reform Only 8	Good Cause Reform Only 9	Fully-Reformed Program 10
Comp group: White Men					
White Women	-0.011 (0.095)	-0.043 (0.092)	-0.030 (0.113)	0.066 (0.078)	0.075 (0.084)
BIPOC Women	-0.054 (0.092)	-0.082 (0.092)	-0.021 (0.118)	0.047 (0.082)	0.047 (0.096)
Latina Women	0.016 (0.099)	0.055 (0.109)	0.035 (0.090)	0.011 (0.077)	0.004 (0.075)
BIPOC Men	0.039 (0.059)	0.013 (0.059)	0.079 (0.057)	0.045 (0.047)	0.020 (0.046)
Latino Men	0.073 (0.055)	0.061 (0.055)	0.158 (0.061)	*** (0.043)	0.189 (0.062)
***					***
Comp group: HS Diploma					
No HS Diploma	0.196 (0.048)	*** 0.238 (0.053)	*** 0.188 (0.051)	*** 0.148 (0.047)	*** 0.164 (0.081)
BA	-0.022 (0.065)	-0.031 (0.064)	-0.109 (0.046)	** (0.062)	-0.180 (0.046)
MA or Higher	-0.042 (0.063)	-0.029 (0.062)	-0.134 (0.065)	** (0.070)	-0.093 (0.084)
Single	0.014 (0.062)	0.027 (0.061)	0.004 (0.055)	-0.051 (0.060)	-0.072 (0.055)
Age	0.046 (0.011)	*** 0.053 (0.011)	*** 0.044 (0.015)	*** 0.053 (0.013)	*** 0.075 (0.016)
Age Squared	0.000 (0.000)	*** -0.001 (0.000)	*** 0.000 (0.000)	* -0.001 (0.000)	*** -0.001 (0.000)
Men with Children	-0.053 (0.059)	-0.050 (0.059)	0.014 (0.062)	-0.103 (0.057)	* (0.064)
Women with Children	-0.097 (0.069)	-0.081 (0.075)	-0.088 (0.080)	-0.037 (0.063)	0.005 (0.065)
Any Child Under 3	-0.082 (0.049)	* -0.077 (0.048)	-0.139 (0.055)	** 0.123 (0.048)	*** 0.136 (0.066)
Hours Worked Per Week	0.045 (0.002)	*** 0.045 (0.002)	*** 0.003 (0.001)	** 0.052 (0.002)	*** 0.002 (0.001)
Worked for Minimum Wage	-0.117 (0.041)	*** -0.111 (0.044)	** -0.099 (0.033)	*** -0.114 (0.035)	*** -0.026 (0.042)
Union Coverage	-0.138 (0.060)	** -0.139 (0.060)	** -0.096 (0.072)	*** -0.170 (0.063)	*** -0.144 (0.100)
Personal Care Jobs	-0.136 (0.113)	-0.167 (0.114)	-0.260 (0.115)	** 0.036 (0.091)	0.014 (0.130)
Service Jobs	-0.324 (0.113)	*** -0.336 (0.111)	*** -0.204 (0.087)	** -0.165 (0.083)	** -0.047 (0.076)
Construction Jobs	0.297 (0.091)	*** 0.274 (0.094)	*** 0.378 (0.107)	*** 0.268 (0.089)	*** 0.281 (0.113)
Manufacturing Jobs	0.018 (0.074)	0.011 (0.073)	-0.004 (0.085)	0.033 (0.072)	0.041 (0.086)
Depvar Mean	0.1682	0.1738	0.3570	0.2108	0.4899
Observations	10,029	10,029	10,029	10,029	10,029

Controlled for: state fixed effects, year, region, and urban/rural status

Robust standard errors in parentheses

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

## Appendix B: Sensitivity Analyses

Table 1: Identified Self-Employed Workers  
by Job Separation Among Sample  
Entering Unemployment Spell

SIPP Variable: EJB1\_CLWRK

Category of Work	Involuntary Separation	
	Yes	No
Federal gov't	70	84
Active duty military	13	32
State gov't	229	312
Local gov't	211	255
Business	3,476	5,101
Nonprofit	304	491
Self-Employed, Owner	83	0
Self-Employed, Worker	418	0
<b>Total</b>	<b>4,804</b>	<b>6,275</b>

SIPP Variable: EJB1\_JBORSE

Category of Work	Involuntary Separation	
	Yes	No
Employer Employed	4,169	6,164
Self-Employed	501	0
Other Work Arrangement	134	111
<b>Total</b>	<b>4,804</b>	<b>6,275</b>

Table 2: Model Specifications of Simulation Results by Most Generous to Most Conservative

Though specifications vary in the percent of each sample eligible, all four have uniform trends in increases due to single-reform programs and all samples have the highest eligibility under the fully-reformed program.

Specification 1: Missing Causes coded to INVOLUNTARY and <i>other personal reasons</i> coded to REFORM					
	Full	Women	BIPOC Women	Men	BIPOC Men
Traditional	16.87%	13.43%	13.24%	20.85%	18.67%
ABP	17.42%	13.87%	13.63%	21.53%	18.93%
Good Cause	21.16%	18.93%	19.03%	23.75%	21.75%
Part-Time	34.76%	30.95%	30.85%	39.17%	38.95%
Full Reform	47.96%	48.39%	47.27%	47.47%	46.33%

\*Specification used in study

Specification 2: Missing Causes coded to INVOLUNTARY and <i>other personal reasons</i> coded to VOLUNTARY					
	Full	Women	BIPOC Women	Men	BIPOC Men
Traditional	16.87%	13.43%	13.24%	20.85%	18.67%
ABP	17.42%	12.87%	13.63%	21.53%	18.93%
Good Cause	18.62%	16.08%	16.29%	21.56%	19.38%
Part-Time	34.76%	30.95%	30.85%	39.17%	38.95%
Full Reform	41.12%	39.90%	39.06%	42.53%	41.49%

Specification 3: Missing Causes coded to VOLUNTARY and <i>other personal reasons</i> coded to REFORM					
	Full	Women	BIPOC Women	Men	BIPOC Men
Traditional	12.72%	9.78%	9.21%	16.11%	15.24%
ABP	13.18%	10.14%	9.47%	16.70%	15.39%
Good Cause	17.01%	15.27%	15.00%	19.01%	18.33%
Part-Time	27.22%	23.83%	24.05%	31.15%	32.18%
Full Reform	40.10%	40.88%	40.36%	39.20%	39.31%

Specification 4: Missing Causes coded to VOLUNTARY and <i>other personal reasons</i> coded to VOLUNTARY					
	Full	Women	BIPOC Women	Men	BIPOC Men
Traditional	12.72%	9.78%	9.21%	16.11%	15.24%
ABP	13.18%	10.14%	9.47%	16.70%	15.39%
Good Cause	14.46%	12.42%	12.26%	16.83%	15.95%
Part-Time	27.22%	23.83%	24.05%	31.15%	32.18%
Full Reform	33.26%	32.39%	32.14%	34.26%	34.46%