The Effect of Welfare Time Limits on Welfare Use

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Abstract

I study the effects of welfare time limits which were introduced as a major change to welfare in the 1996 Personal Responsibility and Work Opportunity Act and their effect on welfare use. I use variation in states timing and length of welfare time constraints to use a difference-in-difference model, estimating the effects of an "Effective Time Limit" which is a measure of the remaining years of welfare eligibility, taking into account both time limits and age of youngest child. I find that a one year increase in the effective time limit increases welfare use by 1.88 percentage points and number of months of welfare use in a given year by 0.206 on average. These findings suggest quite substantial effects of welfare time limits on welfare use.

1   Introduction

One of the biggest changes in welfare in recent history was the Personal Responsibility and Work Opportunity Reconciliation Act (PRWORA) of 1996 which created Temporary

Assistance for Needy Families (TANF), replacing the previous welfare program known as Aid for Families with Dependent Children (AFDC). These changes were meant to change welfare into a tool to promote self sufficiency rather than a life long reliance on government intervention and as a result led to a significant decrease in the reception of welfare. In particular, when looking at a high welfare use group, in the early 1990s the welfare use rate was over 25% which dropped significantly in the years following PRWORA in 1996 and is close to 5% in 2020 (Figure 1). One change in particular that is believed to have had a major effect on welfare use was the creation of time limits on welfare reception which stopped families from receiving federal TANF funding once a cumulative 5 years of welfare was used. States also have a say in the time limits, being allowed to opt for even shorter limits or instead use their own state funding to offer benefits beyond the 5 year federal funding limit. By studying the effects of time limits on welfare use this can give policy makers a better understanding of the tools they can use to change the amount of people on welfare.

In this paper, I study the effect of these time limits on welfare use by using a difference-in-difference strategy relying the state variation in timing and length of welfare time limits to estimate the effect of the amount of remaining eligibility on the reception of TANF. Because the remaining eligibility is made up of the states time limits and the age of the families youngest child, I create a measurement called the "effective time limit" which is the minimum of the remaining eligibility between the two. Additionally, I restrict my sample to be single mothers aged 24-56 with high school degree or lower education, as this is the group that TANF is primarily targeted towards. For my results, I find that a one year increase in the remaining effective time limit increases the reception of TANF in a given year by
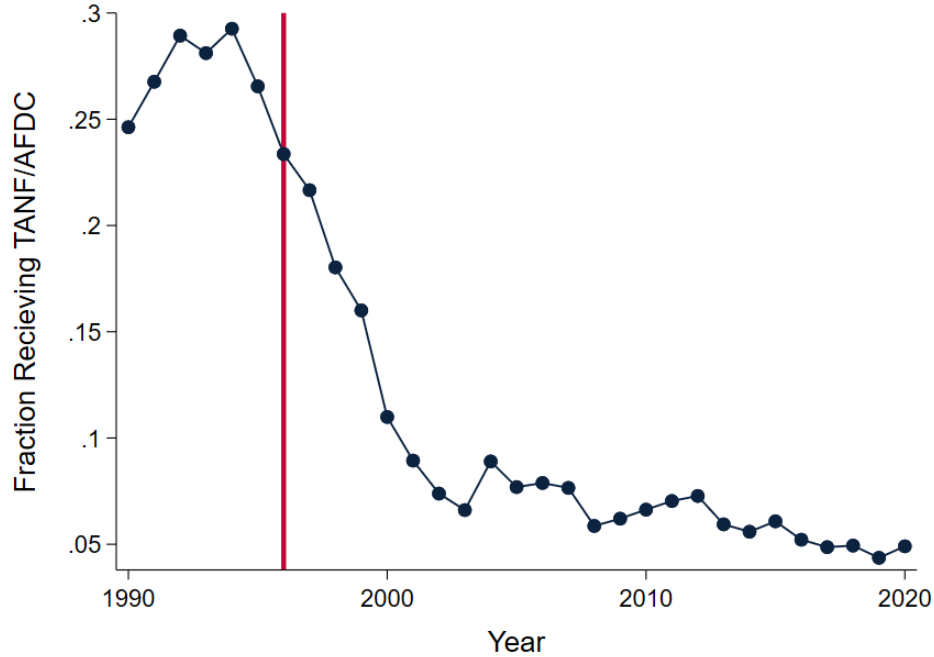
Figure 1: Fraction of High Welfare Use Group Receiving AFDC/TANF from 1990-2020

Note: Red vertical line at 1996 indicates passage of PRWORA. Sample for single mothers aged 24-56 with high school degree or lower education. Data from ASEC of CPS.

1.88 percentage points and increases the the number of months of TANF received in a given year by 0.206 on average. These effects are large when compared to the average of 12.3% of the sample using welfare and an average of 1.248 months per year of TANF usage. Using these means, the effect size can be described as one year increase in the effective time limit increasing welfare usage by about 15% of the outcome mean and the number of months of TANF used by about 16.5% of the mean.

Additionally, I study heterogeneity by race and education. For race, I find that there are similar increases on welfare reception of a one year increase in the effective time limit in levels for both whites and blacks. However, blacks are more likely to receive TANF on average, so as a percent of the mean, the effect of one year of the effective time limit is higher

for whites. When breaking the sample up into those with a high school degree and those with lower education, I find that the effect in levels is slightly larger for those with less than a high school degree, however those with a high school degree about two times less likely on average to use TANF than those with education less than high school degrees. I find that as a percent of the mean, the effect size of a one year increase in the effective time limit is larger for those with high school degrees compared to those without high school degrees.

Overall, my results suggest that time limits do play a significant role in the reception of welfare and contributed significantly to decreases in welfare following the 1996 PRWORA. When evaluating heterogeneity, the effect in terms of level changes do not seem to differ greatly by education or race. These estimates can be used by policy makers to evaluate the effects of changing welfare time limits. However, I do not assess time limits on important outcomes such as employment and income and cannot come to any conclusions about the effectiveness of welfare time constraints on economic self sufficiency.

The paper proceeds as follows: Section 2 gives a background of PWORA and time limits, Section 3 provides a review of related literature, Section 4 describes the data used, Section 5 describes the empirical strategy, Section 6 describes the main results and heterogeneity, and Section 7 concludes.

2 Background

Welfare time limits originated with the Personal Responsibility and Work Opportunity Reconciliation Act (PRWORA) of 1996. This act created Temporary Assistance for Needy Families (TANF) which replaced a previous cash assistance program for families in need,

known as Aid to Families with Dependent Children (AFDC). TANF is set up as block grants given to states to use to help families in need. Similar to AFDC, this gave states discretion in the implementation of the funding, being allowed to determine eligibility thresholds and benefit amounts as long as the funding is going towards needy families with children.

With the creation of TANF, there were four clear goals in mind: (1) provide assistance to needy families so that children can be cared for in their own homes or homes of relatives, (2) end dependence of needy parents on government benefits, (3) reduce out-of-wedlock pregnancies, and (4) promote the formation and maintenance of two-parent families (Falk, 2023). These ideas were inspired by Bill Clinton's 1992 Presidential campaign that sought to "end welfare as we know it", pushing to reform welfare into a program to promote self sustainability rather than life long dependence on government assistance.

One of the biggest changes introduced in order to meet these goals was the creation of time limits. In the new welfare rules, there was a 5 year time limit on federal funding, meaning heads of households who used TANF assistance could only receive benefits for a cumulative 60 months. States also had their own choice in time limits: for the federal funding, states could impose shorter time limits for TANF eligibility or states could decide to use their own funding to continue TANF benefits after the 5 years of federal funding was met. Some states such as Michigan and Vermont used their own funding to essentially have no time limits on TANF funding while others, such as California, have implemented benefit reductions that gradually phased out TANF benefits after the federal 5 year limit was reached by using state funding. Many other states went the other direction and imposed stronger time limits.

Looking at 2005 as a snapshot of the variation in states time limits, twenty-two states had a time limit of 5 years, seventeen states had a time limit less than 5 years, eight states and DC had 5 year time limits but still gave some funding after the 5 years were reached, one state (Indiana) had time limits less than 5 years but still gave reduced benefits after time limits were reached, and two states (Michigan and Vermont) had no time limits (Farrell et al., 2008). Overall, the time limits imposed by TANF vary widely depending on the individual state choices and their willingness to use state funding after the federal funding is cut off.

3   Literature Review

Early research on welfare time limits found little to no effect on welfare use (CEA, 1997; Ziliak et al., 2000). However, in a study of Florida welfare reform, Grogger and Michalopoulos (2003) find that welfare time limits have substantial effects, particularly for those with very young children. Taking into account the age of the youngest child was one of the important aspects missing from the previous studies. The reasoning is that families are forward facing and because of the uncertainty faced by future years, the families with younger children will hold on to their eligibility to receive welfare benefits rather than use them immediately. For families with older children however, there is a shorter time horizon since the families eligibility will automatically go away once the youngest child in the household reaches 18 years of age. Therefore, the age of the youngest child is an important factor in determining the effects of welfare time constraints. In a follow up paper, Grogger (2003) studies this model nationally using data from the Current Population survey, finding that time limits

accounted for one-eight of the decline in welfare use from 1993-1999.

In another study based on the model by Grogger and Michalopoulos, Mazzolari (2007) finds that welfare usage from time limits have been estimated to have decreased welfare usage by 25% between 1993 and 2006. An advantage that this study has is that it uses data from Survey of Income and Program Participation (SIPP) which contains information of an individuals remaining account stock of eligibility, which cannot be determined from CPS data.

My work adds to the existing literature by using ideas from the model by Grogger and Michalopoulos and looking at more recent years, in order to study the long run effects of time limits. I also study differences by groups, evaluating the differences of the time limits by race and by level of education.

4 Data

My primary data source is the Annual Social and Economic Supplement (ASEC) of the Current Population Survey (CPS), which is a yearly survey covering more than 75,000 households that contains information on a wide range of economics and social measures. I restrict my sample to be single mothers aged 24-56 with high school degree or lower education, for years 1990-2020, giving a total of 118,306 observations. The reasoning for this sample restriction is that this is the group that is primarily affected by TANF welfare and are similar sample selections to related papers (Grogger, 2003; Mazzolari, 2007). From this data, I have access to a wide range of demographics including age, race, and education. This data also provides a variable for age of youngest child, which is an important component to into

account for welfare eligibility. My outcomes of interest are variables for receiving TANF welfare in a given year or number of months receiving TANF welfare in a given year, which will allow me to estimate changes in welfare use.

For data on the TANF time limits, I use the Welfare Rules Database, which contains information for each states imposed time limits for a given year. The 1996 PRWORA imposed a federal time limit of 5 years on TANF welfare receipt, but states have the option to further restrict the time constraints. States also have the option to continue funding of TANF welfare beyond hard cap of 5 years by using their own state funds. In addition to the actual state time limits, families are also imposed by an eligibility time limit via the age of their youngest child. This is because once the youngest child turns 18 the family is no longer eligible for TANF. Therefore, to measure the effect of time limits, I created a variable which I call "Effective Time Limits" (ETL) which is defined as

$$
ETL = \begin{cases} \min(\text{State Time Limit}, \ 18 - Age_{yc}) & Age_{yc} < 18 \\ \\ 0 & Age_{yc} \geq 18 \end{cases}
$$

where Age_{yc} is the age of the youngest child in years. This then gives an estimate of the amount of time remaining that an individual has to use welfare. Note that this is an upper bound and may not be the actual remaining stock of eligibility because families could have used some months of eligibility in previous years, which is not recorded in the CPS data.

Looking at the summary statistics for the data in Table 1, 64.4% of the sample is white, 30.4% is black and only 5.2% of sample is another race. The average age is 37.9 years old and on average individuals have 1.9 children with the youngest children being 10.9 years old.

Table 1: Summary Statistics

	Mean	SD
Demographics		
Number of Months Recieved TANF in a Year	1.248	3.532
Recieved TANF/AFDC welfare in a Year	0.123	0.328
HS Grad	0.639	0.480
White	0.644	0.479
Black	0.304	0.460
Race, Other	0.052	0.222
Age 24 to 34	0.402	0.490
Age 35 to 45	0.367	0.482
Age 46 to 56	0.231	0.422
Age	37.9	8.957
Age of Youngest Child	10.9	8.335
Number of Children	1.9	1.084
TANF Time Constraints		
State Time Limit (Years)	4.721	0.711
Effective Time Limit (Years)	4.754	4.234
ETL, Conditional on Time Limits	3.413	2.046
Benefit Reduction	0.0954	0.294
No Time Limits	0.268	0.443
N	118,306	

Note: Data from CPS ASEC and Welfare Rules Database. Sample for single mothers aged 24-56 with high school degree or lower education, covering years 1990-2020. "State Time Limit (Years)" variable is conditional on states having time limits.

In the sample, 63.9% have a high school degree. For the variables of interest, 12.3% of the sample received TANF benefits, with an average of 1.248 months of benefits received in a given year. The average effective time limit is 4.754 years for the entire sample, but is only 3.413 years when conditioning on observations when there are time limits imposed. This means that on average the individuals in the sample have at most 4.754 years of eligibility remaining.

5   Empirical Strategy

To get a causal estimate of the effect of time limits on welfare receipt, I use a difference-in-difference strategy using the state variation in timing of implementation and length of welfare time limits. To estimate this, I run the following regression equation:

$$y_{i,s,t} = \alpha_s + \alpha_t + \beta_1 ETL_{i,s,t} + \gamma X_{i,t} + \rho W_{s,t} + \varepsilon_{i,s,t}$$

where i is an individual, s is a state, and t is a year. $y_{i,s,t}$ is a measure of welfare receipt, either a binary variable for receiving welfare or number of months of receiving welfare for individual i in a given year t. α_s and α_t are state and year fixed effects respectively. $ETL_{i,s,t}$ is the effective welfare time limit for an individual i, in a given state s, in a given year t. This is the variable of interest because it measures the effect of the changes in the binding welfare time limits on receiving welfare. I also include $X_{i,s,t}$ which are individual level demographics including age, completed a high school degree, race, number of children, and age of youngest child. $W_{s,t}$ are state level controls related to welfare time limit policies, including a dummy variables for if a state has a welfare time limit and if a state has benefit reductions once the time limits are met. Finally, $\varepsilon_{i,s,t}$ is the error term.

Since every state has some change in time limits, the measure of effective time limits varies in the degree of treatment, with some states imposing stricter time limits, while others have very lenient time limits. Also, states are changing the strictness of their time limits at different times, making this a staggered difference-in-difference model. The main assumption that I need for this strategy to work is the parallel trends assumption. This requires that

the states that do not change their time limits in a certain year need to represent the counterfactual trend for states that do change their time limits for a certain year. This could be violated if there cannot be any macro economic shocks or other policy changes that could affect the reception of welfare differentially for those states that change limits vs. those that don't. One particular worry is that states that are implementing changes in time limits could also be changing other aspects of TANF policies, which would mean the effect I am measuring is from collective changes in TANF rather than from time limits specifically. For example, if all of the states that impose more lenient time constraints also change their policies to have more lenient income thresholds for eligibility, then I would capture the combined effect of the policy changes rather than teasing out the effect of just the change in time limits.

6 Results

6.1 Main Results

Table 2: Results on TANF Reception

	Recieved TANF		Months of TANF	
	(1)	(2)	(3)	(4)
Effective Time Limit	0.0215***	0.0188***	0.222***	0.206***
	(0.000504)	(0.000774)	(0.00584)	(0.00875)
N	118,306	118,306	118,306	118,306
R-Squared	0.14	0.17	0.14	0.17
Outcome Mean	0.123	0.123	1.248	1.248
Demographic Controls	No	Yes	No	Yes

Note: *** p<0.01, ** p<0.05, and * p<0.1. Standard errors in parenthesis and are clustered at the state-year level. Sample is single mothers aged 24-56 with high school degree or lower education, for years 1990-2020. Demographic Controls refers to inclusion of individual level demographics including age, race, high school degree, age of youngest child, and number of children. Controls for states with no time limits and states with benefit reductions in all regressions.

My results for my main regressions are shown in Table 2. The result from column 1 can be interpreted as a one year increase in the effective time limit increases the likelihood of an individual receiving welfare in a given year by 2.15 percentage points. When both demographic and state time limit controls are included the effect size decreases slightly to 1.88 percentage points, with both of these results statistically significant at the 1% level. When looking at this effect as percent average welfare use (which is 12.3%),a one year increase in the effective time limit has an effect size of 15% of the mean. When looking at months receiving TANF, a one year increase in the effective time limit increases the number of months receiving TANF in a given year by 0.222 when controls are excluded and 0.206 when all controls are included, with both results statistically significant at the 1% level. When comparing this to the mean of 1.248 months of TANF use per year, a one year increase in the effective time limits has an effect size of 16.5% of the mean.

Overall, these findings show that increasing the effective time limit leads to substantial increases in the probability of using welfare and the amount of time that one uses welfare in a given year. This suggests that placing stricter welfare time limits lead to significant reductions in TANF reception and contributed to a large decrease in welfare use following PRWORA of 1996.

One limitation of these results are that the effective time limit variable is an upper bound and not the true remaining stock of time that an individual has left to receive welfare. This is because I am unable to account for previous years in which an individual may have received welfare, thus decreasing the their remaining months for federal TANF funding. Another limitation is not accounting for other potential policies that could effect welfare use such as

Earned Income Tax Credits or other changes in welfare policies, which could differentially affect welfare use in states with strict time limits vs. lenient time limits.

6.2 Heterogeneity Results

In addition studying the effects on the entire sample, I estimate the effects by race and by education. In Table 3 in panel A, I restrict the sample to only white individuals giving a sample size of 80,810, while in panel B, I restrict the sample to only black individuals giving a sample size of 30,036. When restricting to only white individuals and including all controls, a one year increase in the effective time limit increases the likelihood of receiving TANF in a given year by 1.87 percentage points on average. When looking at the sample restricted only to black individuals and with all controls included, the estimate is very similar with an effect size of 1.90 percentage points. Both of these point estimates are statistically different from zero, with p-values less than 0.01. Although the change in levels is similar, the baseline averages in welfare use are very different, with 10.1% of the white sample having received welfare while 17.1% of the black sample received welfare. This means the effect size as a percent of the mean for a one year increase in the effective time limit is 18.5% for whites and 11.1% for blacks.

When looking at the months of TANF received, for white individuals a one year increase in the effective time limit increased TANF by 0.198 months while for black individuals the effect was slightly larger with 0.217 months when all controls are included. This difference in effect size is only 0.019 months, which is a small difference in magnitudes. Similar as with TANF reception, there are different baseline means in average months of TANF used

for these groups, with an average of 1.014 months for whites and 1.772 months for blacks. Therefore as a percent of the mean, a one year increase in effective time limits increases the number of months of welfare reception by 19.5% for whites and 12.2% for blacks.

Table 3: Heterogeneity by Race

	Recieved TANF		Months of TANF	
	(1)	(2)	(3)	(4)
Panel A: White				
Effective Time Limit	0.0192***	0.0187***	0.194***	0.198***
	(0.000603)	(0.000887)	(0.00704)	(0.0102)
N	80,810	80,810	80,810	80,810
R-Squared	0.13	0.14	0.13	0.14
Outcome Mean	0.101	0.101	1.014	1.014
Demographic Controls	No	Yes	No	Yes
Panel B: Black				
Effective Time Limit	0.0253***	0.0190***	0.267***	0.217***
	(0.000755)	(0.00127)	(0.00878)	(0.0144)
N	30,036	30,036	30,036	30,036
R-Squared	0.17	0.20	0.17	0.20
Outcome Mean	0.171	0.171	1.772	1.772
Demographic Controls	No	Yes	No	Yes

Note: *** p<0.01, ** p<0.05, and * p<0.1. Standard errors in parenthesis and are clustered at the state-year level. Full sample is of single mothers aged 24-56 with high school degree or lower education, for years 1990-2020. "Panel A: White" restricts the sample to individuals whose race is white. "Panel B: Black" restricts the sample to individuals whose race is black. Demographic Controls refers to inclusion of individual level demographics including age, race, high school degree, age of youngest child, and number of children. Controls for states with no time limits and states with benefit reductions in all regressions.

In addition to race, I run specifications for heterogeneity by educational achievement by separating the sample into those with high school degrees and those with education less than a high school degree (Table 4). Looking at the differences by education level, the effect of a one year increase in the effective time limit on the probability of receiving TANF is 1.7

percentage points for those with a high school degree and 2.01 percentage points for those with less than high school degree. Similarly, the effect size in levels on months of TANF received is smaller for those with a high school degree with only 0.181 months while those without a high school degree is 0.225 months.

However, the baseline TANF receptions are very different between the two groups with those with 8.7% of those with high school degrees receiving TANF in the sample while 18.6% of those without a HS degree receiving TANF in the sample, which makes sense given that higher education is associated with higher earnings and therefore would be less likely to be on welfare. Therefore, the effect of a one year increase in the effective time limit is as a percent of the outcome mean for the probability of receiving welfare, is 19.5% for those with a high school degree and 10.8% for those with less than high school degree. Similarly, there are differences in the means of average months of TANF used in a given year for the different groups, thus giving the effect on the months of TANF received in a given year as a percent of the mean as 21.1% for those with a high school degree and 11.6% for those with less than a high school degree.

Overall, these findings suggest that the changes in the time limits do not have major differences between blacks and whites and those with and without high school degrees when looking at the effects in levels. However, when looking at the effect size as a percent of the means for the different samples, the effects are larger for whites and those with high school degrees because these samples are on average less likely to be using welfare.

Table 4: Heterogeneity by Education

	Recieved TANF		Months of TANF	
	(1)	(2)	(3)	(4)
Panel A: HS Degree				
Effective Time Limit	0.0183***	0.0170***	0.183***	0.181***
	(0.000561)	(0.000955)	(0.00639)	(0.0107)
N	75,406	75,406	75,406	75,406
R-Squared	0.10	0.12	0.10	0.11
Outcome Mean	0.087	0.087	0.857	0.857
Demographic Controls	No	Yes	No	Yes
Panel B: Less than HS Degree				
Effective Time Limit	0.0250***	0.0201***	0.264***	0.225***
	(0.000645)	(0.00106)	(0.00745)	(0.0121)
N	42,900	42,900	42,900	42,900
R-Squared	0.17	0.18	0.17	0.18
Outcome Mean	0.186	0.186	1.940	1.940
Demographic Controls	No	Yes	No	Yes

Note: *** p<0.01, ** p<0.05, and * p<0.1. Standard errors in parenthesis and are clustered at the state-year level. Full sample is of single mothers aged 24-56 with high school degree or lower education, for years 1990-2020. "Panel A: HS Degree" restricts the sample to individuals whose highest educational acheivement is a high school degree. "Panel B: Less than HS Degree" restricts the sample to individuals with educational less than a high school degree. Demographic Controls refers to inclusion of individual level demographics including age, race, high school degree, age of youngest child, and number of children. Controls for states with no time limits and states with benefit reductions in all regressions.

7 Conclusion

I find that increasing the effective time limit by one year increases the probability of receiving TANF by 1.88 percentage points and increases the average number of months receiving TANF in a given year by 0.206 months. These effect sizes are quite substantial when looked at as a percentage of the outcomes mean, which suggests that the state imposed time limits do have significant effects on the reception of welfare. These findings suggest that

welfare time limits were a large factor in the decrease of welfare use following PRWORA of 1996. When looking at the effects on different groups, the effective time limits had similar effects in terms of levels, but whites received TANF lower on average, so the effect was bigger when looked at as a percent of the mean for whites than blacks. When looking at groups by education, the effect of the effective time limits were smaller in levels for those with high school degree compared to those with higher education. However, the size of the effect as a percent of the average of TANF reception was larger for the HS degree group compared to the the less than HS degree group. Overall, this suggests that the time limits have similar effects in levels but not percents. However, I am unable to give a proper description for why there are these differences.

Overall, for future research, one could look further into different policies that are implemented that could be changing reception of welfare such as Earned Income Tax Credits (EITC) which are identified by Grogger (2003) as important factor in welfare use. It could also be the case that states with more lenient time restrictions could also be more generous with EITC credits, which could influence people to go and work, pushing them out of income range to receive welfare, thus causing my estimates to underestimate the effect of welfare time limits. There could also be more research further evaluating the effects of welfare time limits on actual outcomes of self sufficiency, which was one of the reasons for their implementation. For example, this paper could be expanded by looking at the effects on employments and income.

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