TANF RESPONSES TO RACE DURING THE GREAT RECESSION

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By

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ABSTRACT

Federal welfare programs in the United States have long suffered from implicit and explicit racial discrimination. The programs rules were originally written to exclude Blacks. The literature documents a persistent negative correlation between race and welfare generosity. The program’s current iteration, Temporary Assistance for Needy Families (TANF), failed to respond to the increase in need that occurred during the Great Recession. I posit that this lack of response may have been due in part to racial threat: the economic downturn changed the correlation between race and TANF benefits, making the relationship more negative. Using OLS with state fixed effects, I find that the interaction between changes in racial composition and unemployment rate are significant predictors of TANF benefits. My model shows that predicted TANF benefits increase when a state’s Black population grows and unemployment is low and decrease when a state’s Black population grows and unemployment is high.
The research and writing of this thesis is dedicated to my parents Karen Ellingstad and Fred Triem for their unwavering and enthusiastic support of all of my academic endeavors. I am also grateful for my classmates at the McCourt School of Public Policy for their creative, technical, and intellectual support, particularly Michael Quinn, Kristin Blagg, and Myriam Alexander-Kearns.

Many thanks,
Carole M. Triem
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INTRODUCTION

Public assistance programs, known commonly as welfare, have a long history in the United States. The structure of the federal programs has changed over the years, and so have the goals of the programs and the public’s opinion about them. The Social Security Act of 1935 established the first federal program. The name of that program, Aid to Dependent Children (ADC), reveals the ultimate intention of this country’s public assistance system: ensure the well-being of children. Welfare programs have accomplished this through transfers to the parents. As public opinion, policies, and demographics have changed, so have society’s expectations of the parents who receive benefits (Heclo, 2001). Throughout welfare’s history in the United States, public opinion, policies, and societal expectations of welfare recipients have been influenced and shaped by racial relations, sometimes implicitly and sometimes explicitly.

The original recipients of ADC benefits were single mothers who had been widowed or abandoned. Beneficiaries were intended to be only the deserving poor mothers, a vestige of English poor laws. There were many ways the program discriminated against the undeserving poor mothers. To ensure passage of the Social Security Act, concessions were made to Southern members of Congress, who “did not want to give authority to anyone in Washington to deny aid to any state because it discriminated against Negroes” (Witte, 1962, p. 144). Agricultural and domestic workers were not eligible for ADC, which excluded almost two-thirds of the black workforce (Lieberman, 2006). Caseworkers also had considerable discretion to enforce what was termed the “suitable homes” requirement, which was used to “exclude ‘undesirable’ families from aid, particularly children of never-married or African-American mothers” (Blank & Blum, 1997, p. 30).
The program changed as the country’s demographics changed and the idea faded that a mother should stay at home with her children. ADC caseloads grew rapidly in the 1960s and so did the number of never-married mothers. The name of the program was changed to Aid to Families with Dependent Children (AFDC) in 1962, “partly reflecting concern that the program’s benefits and eligibility rules discouraged marriage” (Blank & Blum, 1997, p. 31). Regulations continued to change to enforce the idea that beneficiaries should make an effort to support themselves, such as the 1971 mandate that welfare recipients participate in employment and job training programs (Blank & Blum, 1997). The most significant change to the program came in 1996 when welfare reform was enacted. The passage of the Personal Responsibility and Work Opportunity Reconciliation Act (PRWORA) eliminated the entitlement status of welfare, changed the funding of the program, and established a new program: Temporary Assistance for Needy Families (TANF). PRWORA created new work requirements and time limits for families receiving benefits and gave states the power to sanction recipients who did not meet the new requirements. Instead of receiving matching dollars for their own spending, states now receive a fixed amount based on their aggregate AFDC spending levels in the late 1990s.

Although federal courts struck down some of the most discriminatory regulations in the 1960’s (including the “suitable homes” requirement), there has always been a correlation between race and welfare participation, benefits, and economic outcomes. Orr (1976) found the fraction of families receiving benefits headed by non-whites to be negatively and statistically significantly correlated with AFDC benefit amounts. Black recipients are more likely to receive

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a For a more thorough history of the program, see Blank & Blum, 1997 and Heclo, 2001.
sanctions under TANF rules than white recipients with the same behavior (Schram, Soss, Fording, & Houser, 2009).

The Great Recession\(^b\) was the first big test of TANF’s ability to provide a safety net for poor Americans. Overall, TANF caseloads did not increase along with unemployment rates during the recession, as they did in the Supplemental Nutrition Assistance Program and Unemployment Insurance programs (Center on Budget and Policy Priorities [CBPP], 2011). One reason for this unresponsiveness is likely TANF’s block grant funding structure. In nominal dollars, the value of the TANF block grant has not changed since PRWORA was passed in 1996. This means the real value of the money available to states has been eroded by inflation.\(^c\)

All states have faced the same loss in value due to inflation, but state responses during the Great Recession (between December 2007 and December 2009) varied greatly. According to a Center on Budget and Policy Priorities report (2011), eight states had TANF caseload increases of more than 30%, 21 states had caseload increases between 10% and 30%, 16 states had increases less than 10%, and in eight states TANF caseloads actually decreased. The caseload changes did not seem to track changes in unemployment.

TANF’s overall response to the Great Recession raises important questions about the program’s ability to provide an adequate social safety net when it is needed most. This paper takes steps to explain the responsiveness (or lack thereof) of state TANF programs during the Great Recession, focusing on the role of race in shaping welfare policies. I examine previous models of welfare benefit determination (Orr, 1976; Kail & Dixon, 2011) through the lens of

\(^b\) I use the term “Great Recession” to refer to the recession in the United States that began in December 2007 and ended in June 2009.
\(^c\) The American Recovery and Reinvestment Act of 2009 did authorize an increase to the TANF Emergency Fund, but it was available only for fiscal years 2009 and 2010 (CBPP, 2009).
racial threat theory, which hypothesizes that “members of the dominant or majority group perceive a sizeable racial minority group as a viable threat to existing social arrangements,” especially when economic resources are tight (King & Wheelock, 2007).

No federal welfare program has had to respond to an economic downturn as severe as the Great Recession. If the majority group felt an increase in racial threat due to the recession, it may be that influence of race on welfare benefits changed during this time. This may offer some explanation of state TANF responses to the Great Recession.
LITERATURE REVIEW

Both welfare policies and racial threat have been studied extensively, but there is little research on the relationship between the two. Because I focus my analysis on cash benefits, rather than in-kind transfers or services, I first discuss the literature on benefit determination. I then turn to the existing literature on racial threat.

Benefit determination

There is a substantial body of literature related to public assistance benefits and the factors that influence their size. Government transfers are paid for by tax revenue, so there is an economic component of benefit determination. As mentioned above, public opinion and societal expectations are also important influences on welfare policy. Ideological factors also appear to impact welfare benefit amounts.

Economic Factors

The public finance theory of income redistribution as a public good assumes that taxpayers want the poor to receive cash transfers and that the taxpayers are willing to be taxed to provide the benefits. According to the model developed by Orr (1976), an individual’s preference for the amount of the transfer depends on her income and the amount she pays in taxes to fund the transfer.

Orr assumes that individual preferences may vary but state benefit levels are determined by the median voter’s preferences. In this model, taxpayers will prefer higher benefit amounts when: 1) taxpayer income is higher; 2) the ratio of recipients to taxpayers is low; 3) taxpayers have more altruistic tastes. Using two-stage least squares regression on average AFDC benefits between 1963 and 1972, Orr finds strong support for his model. Most importantly for this paper,
Orr’s results show that benefits are “strongly influenced by state per capita income” (p. 368) and that the racial composition of recipients is an important predictor of benefit levels, with a negative correlation between the proportion of non-white recipients and benefit levels.

The federal matching rate for state AFDC spending was not a statistically significant predictor of benefit amounts. This may seem counterintuitive, as more federal money should allow states to increase benefit amount. In practice, it seems that federal matching funds replaced, or crowded out, state spending.

Other studies have followed the income redistribution as a public good theory of benefit determination with similar results: Ribar and Wilhelm (1999) use different econometric techniques in an attempt to reconcile varying results of previous studies. Using OLS, fixed effects, and two-stage least squares regressions, Ribar and Wilhelm find that the only consistently significant predictors of the maximum AFDC benefit guarantee are a state’s per capita income and the proportion of a state’s population that is Black. Per capita income is positively associated with benefit levels and the proportion Black is negatively associated with benefit levels. In his 1994 paper, Tweedie finds that per capita income is significant in only some of his pooled time-series analyses of changes in AFDC benefits. He does find that state revenue is consistently statistically significant, implying that a state’s fiscal capacity, or ability to pay for benefits, is an important factor in benefit determination. Tweedie’s study does not include any measure of the race of welfare recipients or of a state’s population.

A report by the Lewin Group (2004) focuses exclusively on state fiscal capacity and its influence on state spending for social welfare programs. The authors use per capita income as one measure of a state’s fiscal capacity because “it is a relatively good indicator of residents’
ability to pay taxes” (p. 4). Using OLS with state and year fixed effects, the report finds weak evidence that per capita income is associated with state spending on cash assistance. However, the models do not include controls for political or institutional variables that may affect state spending decisions. The analysis also does not include any measures of race.

**Political and Institutional Factors**

There is also political science research on benefit determination. States receive federal funding, but a state’s institutions and political history are important, as TANF benefit levels and eligibility criteria are determined at the state level. The ideology of a state’s government and constituents can affect welfare spending, as can the state’s political structures.

Testing the importance of ideology and institutions, Kail and Dixon (2011) find strong evidence that liberal ideology is positively correlated with AFDC benefits. Using a random effects regression, they find public union strength and Democratic control of state legislatures to be positively correlated with AFDC benefits. Institutional factors are also important: Legislative professionalism and governor’s power, two features “often associated with welfare state expansion and spending more generally,” are also positively correlated with AFDC benefits (p. 389). Not only do Kail and Dixon show that political factors are important for welfare benefits, but they also find more evidence that race plays a role in shaping welfare policy. The proportion Black of a state’s population was negatively and statistically significantly correlated with AFDC benefits. The correlation was slightly less negative for the proportion Hispanic, but the relationship was not statistically significant.

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d States have always had autonomy over ADC, AFDC, and TANF benefit levels and eligibility criteria (Blank & Blum, 1997).
Focusing on TANF policies, Fellowes and Rowe (2004) look for evidence of constituent and institutional pressure. A year fixed effects regression on a measure of the strictness of a state’s TANF eligibility rules found a negative correlation with citizen and government liberalness and with stricter eligibility rules. Strict eligibility rules are one way state lawmakers can reduce the size and scope of their TANF programs. The number of Democrats in the state legislature was also found to be negatively correlated with TANF eligibility strictness. Fellowes and Rowe find that a larger Black population was correlated with stricter eligibility rules, but the size of a state’s Hispanic population was negatively correlated with strict eligibility rules. Both variables were statistically significant. However, both proportion Black and proportion Hispanic were negatively correlated with the size of TANF cash benefits. A similar analysis done by Soss, Schram, Vartanian, and O’Brien (2001) again finds liberal government ideology and the size of a state’s Black population to be negatively correlated with stringent TANF policies.

The large body of literature on benefit determination shows that both money and politics are important influences on welfare benefit amounts. Race has also been found by past researchers to have a consistent relationship with benefits. Specifically, the number of Black residents in a state and the number of Black residents receiving benefits have been shown to be negatively correlated with the size of the benefits. I hypothesize that racial threat is the reason for this persistent negative correlation.

**Racial threat**

The theory of racial threat is predicated on the idea that racial prejudice or animus stems from “a sense of group position rather than in a set of feelings which members of one racial group have toward the members of another racial group” (Blumer, 1958). Discriminatory
behavior by dominant groups is spurred by the perceived threat to social order by subordinate groups. The perceived threat exists because “that the dominant group develops the view that certain resources belong exclusively to them” (Quillian, 1995, p. 588).

In his 1995 paper, Quillian hypothesizes that racial threat depends on the size of the subordinate group relative to the dominant group and the economic conditions. A larger subordinate group increases competition and makes political mobilization easier to achieve. Worsening economic conditions can increase feelings of group threat because of competition for increasingly scarce resources, or if the dominant group blames the subordinate group for the downturn. Using population and survey data from a sample of 11,000 respondents in 12 European countries, Quillian finds evidence to support his hypothesis. Using multilevel logistic regression, he finds that the interaction between the size of a country’s immigrant population and an index of economic conditions is correlated with the probability an individual will feel racial prejudice. This suggests that the feelings of racial threat associated with the size of the subordinate group intensify when economic conditions worsen. Quillian finds more evidence that the interaction between subordinate group size and economic conditions is important in his 1996 research on regional differences in racial attitudes in the United States.

King and Wheelock find that changes in racial composition are important for perceptions of racial threat (2007). It is the relative size of the dominant and subordinate groups that matters for perceptions of threat. If both groups grow at the same rate, the dominant group may not feel an increase in threat to social order or economic resources. Green, Strolovitch, and Wong (1998) and Olzak (1992) find similar results.
When group threat has been studied in the context of welfare, the research has tended to focus on public opinion and policy choices rather than benefit determination. Monnat (2010) looks for evidence of racial threat in the incidence of TANF sanctioning. She finds that the proportion Black and proportion Hispanic of a beneficiary’s county are not statistically significant predictors of the likelihood of sanctions. However, Monnat uses the actual levels of racial composition instead of changes, which may not accurately measure changes in racial threat.

Schram et al (2009) also study welfare sanctions. They conduct an experiment by giving case managers vignettes about hypothetical clients. They find that white caseworkers do not act differently than non-white caseworkers and conclude “these findings are hard to square with an account that emphasizes white in group loyalty or white animus toward blacks” (p. 415).

The literature shows that there is a consistent correlation between race and welfare policies in the United States. Little research has been done on why this correlation exists. This paper attempts to offer an explanation for this correlation by testing the racial threat hypothesis in the context of the Great Recession.
CONCEPTUAL FRAMEWORK

The literature reviewed in the previous section suggests that there are five broad factors that influence the size of a state’s cash TANF benefits: voter preferences, government institutions, fiscal capacity, the level of need for public assistance within a state, and the racial composition of a state’s population.

Voter preferences are important because the voters select the lawmakers who set TANF policy. More liberal voter ideology is associated with larger benefits. Voter income may also affect preferences – voters with higher incomes may be more willing to give up some of their income in taxes to be used for redistribution.

Income is also important for a state’s fiscal capacity, as higher incomes mean more potential tax revenue. Fiscal capacity is an important factor for benefit determination because states cannot spend money on public assistance that they do not have. States with more fiscal resources should be able to provide larger benefits, holding all else equal. Fiscal capacity is affected also by the level of need within a state. Holding fiscal capacity at a fixed amount, an increase in the number of recipients would likely lead to a decrease in benefit amounts, as a state divides its welfare budget among more recipients. On the other hand, altruistic voters may prefer benefits to rise in response to increased need.

Finally, research has shown that the size of minority populations is negatively correlated with benefit amounts. This negative correlation may be due to racial threat – majority groups view increasing minority populations as a threat to social order and economic resources. Racial threat could result in unwillingness to provide public assistance to others and the tax revenue
needed to provide it. The theory of racial threat suggests that it intensifies as the economic conditions worsen and the majority group becomes more protective of economic resources.

I hypothesize that changes in a state’s racial composition are correlated with the state’s cash TANF benefits, and that this correlation varies with economic conditions in the state. In other words, I predict that as a state’s Black and Hispanic populations increase, the state’s TANF benefits decrease, and that they decrease even more when the minority population increases while the economy is bad. This hypothesis is diagrammed in Figure 1.

**Figure 1. Conceptual Framework**
DATA AND METHODS

Variables and Data Sources

This study combines state level data from several sources. The unit of analysis for each variable is the state by year. The data is for all 50 states and the District of Columbia from 1997 to 2011. I choose to begin my analysis in 1997 because PROWORA was not implemented until August of 1996. Data for many of my variables is not yet available for years after 2011.

Dependent Variable

The dependent variable in each of my models is the maximum cash TANF benefit available for a family of three in each state. Data on this variable comes from the University of Kentucky Center for Poverty Research’s (UKCPR) publicly available dataset, *State-Level Data of Economic, Political, and Transfer-Program Information for 1980-2012* (UKCPR, 2013). To control for inflation, I converted the dependent variable (and all other pecuniary variables) to 2011 dollars using the Bureau of Labor Statistic’s CPI-U. Real benefit maximums for a family of three varied from $87 in Mississippi to $923 in Alaska in 2011.

Descriptive statistics for the dependent variable and all other variables are in Table 1.
Table 1. Descriptive Statistics

<table>
<thead>
<tr>
<th>Ratio Variables</th>
<th>Min.</th>
<th>Max.</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Missing Observations</th>
<th>Sample Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>TANF benefit*</td>
<td>85.62</td>
<td>923.00</td>
<td>355.47</td>
<td>142.63</td>
<td>0</td>
<td>765</td>
</tr>
<tr>
<td>Change in Proportion Black</td>
<td>-0.0143</td>
<td>0.0067</td>
<td>0.0003</td>
<td>0.0018</td>
<td>0</td>
<td>765</td>
</tr>
<tr>
<td>Change in Proportion Hispanic</td>
<td>-0.0080</td>
<td>0.0646</td>
<td>0.0033</td>
<td>0.0039</td>
<td>0</td>
<td>765</td>
</tr>
<tr>
<td>Unemployment Rate</td>
<td>0.0230</td>
<td>0.1380</td>
<td>0.0547</td>
<td>0.0203</td>
<td>0</td>
<td>765</td>
</tr>
<tr>
<td>Poverty Rate</td>
<td>0.0560</td>
<td>0.2280</td>
<td>0.1271</td>
<td>0.0322</td>
<td>0</td>
<td>765</td>
</tr>
<tr>
<td>Median Household Income (ln)*</td>
<td>9.8819</td>
<td>11.1573</td>
<td>10.5295</td>
<td>0.2618</td>
<td>0</td>
<td>765</td>
</tr>
<tr>
<td>Gross State Product (ln)*</td>
<td>9.2482</td>
<td>14.4879</td>
<td>11.6424</td>
<td>1.0760</td>
<td>0</td>
<td>765</td>
</tr>
<tr>
<td>Proportion Democrat in State House</td>
<td>0.1600</td>
<td>0.9200</td>
<td>0.5211</td>
<td>0.1573</td>
<td>30</td>
<td>735</td>
</tr>
<tr>
<td>Proportion Democrat in State Senate</td>
<td>0.1100</td>
<td>0.9600</td>
<td>0.5119</td>
<td>0.1629</td>
<td>30</td>
<td>735</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Categorical Variables</th>
<th>Min.</th>
<th>Max.</th>
<th>Mode</th>
<th>Variation Ratio</th>
<th>Missing Observations</th>
<th>Sample Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Large Increase in Proportion Black</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>0.3895</td>
<td>0</td>
<td>765</td>
</tr>
<tr>
<td>Large Increase in Proportion Hispanic</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0.3891</td>
<td>0</td>
<td>765</td>
</tr>
<tr>
<td>Great Recession Year</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0.2000</td>
<td>0</td>
<td>765</td>
</tr>
<tr>
<td>Governor is a Democrat</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0.4547</td>
<td>15</td>
<td>750</td>
</tr>
</tbody>
</table>

*In 2011 dollars

Valid sample size is 735.
**Independent Variables**

The variables of interest in this paper measure the racial composition of the population in each state. Because the research on racial threat suggests that *relative changes* in demographic composition are more important to perceived threat, I choose to operationalize this concept by using *Change in Proportion Black* and *Change in Proportion Hispanic*. Both of these variables represent changes from the previous year.\(^e\) For preliminary analysis I created indicator variables from the two change variables. *Large Increase in Proportion Black* equals 1 if the change in proportion black in the state and year was greater than or equal to the mean change in proportion black across the entire sample. If there was a small, negative, or zero change, *Large Increase in Proportion Black* is equal to 0. *Large Increase in Proportion Hispanic* was calculated the same way. Race and ethnicity data comes from the Census Bureau’s yearly population estimates.

To measure economic conditions I use three variables. The first is an indicator variable for *Great Recession Year*. This variable indicates the years 2007, 2008, and 2009. The value of this variable is equal to 1 when an observation is from one of these three years and it is equal to 0 for all other years in the sample. While this variable could capture other influences from these three years, I believe that economic conditions is the largest factor from these three years that affected all 50 states and the District of Columbia.\(^f\) The second measure of economic conditions is the *Unemployment Rate*. Data for this variable also come from the UKCPR, which collected

\(^e\) *Change in Proportion Black* \(_{i,t} = (Proportion \ Black_{i,t} – Proportion \ Black_{i,t-1})\) and *Change in Proportion Hispanic* \(_{i,t} = (Proportion \ Hispanic_{i,t} – Proportion \ Hispanic_{i,t-1})\)

\(^f\) Using unemployment rate as a measure of economic conditions, it is clear that the Great Recession affected all states, although unevenly. In 2007, 26 states had unemployment rates *lower* than the previous year, although no state’s unemployment rate decreased by more than 1 percentage point. In 2008 and 2009 only one state (Oklahoma) had a decrease in unemployment and it was less than one-half of a percentage point.
information from the Bureau of Labor Statistics’ (BLS) Local Area Unemployment Statistics program. The third control for economic conditions is a state’s Poverty Rate. This data comes from the U.S. Census Bureau’s Small Area Income and Poverty Estimates (Census Bureau, 2013). This variable represents the estimated number of people (of all ages) in each state living in poverty.

I add Poverty Rate to my other economic controls for two reasons: First, the poverty rate serves as a measure of the level of need for public assistance. This may affect a state’s fiscal capacity and voter preferences. Secondly, the Poverty Rate may capture some of the economic picture missed by Unemployment Rate. Unemployment Rate does not include discouraged workers who have stopped actively seeking employment. Because the number of discouraged workers rose during the Great Recession, Unemployment Rate may not represent the full extent of the economic downturn during this time period. (BLS, 2009)

Control Variables

The analysis includes a number of variables to control for other factors affecting benefit determination that were discussed in the Literature Review and Conceptual Framework. To control for state fiscal capacity, I include Median Household Income and Gross State Product.\textsuperscript{g} Median Household Income was included in the Census Bureau’s Small Area Income and Poverty Estimates dataset. Gross State Product data comes from the UKCPR, which collected data from the Bureau of Economic Analysis. This variable is measured in millions of dollars.

Voter preferences are controlled for by three variables measuring the ideology of state government lawmakers. If voters elect officials who share their preferences, voter ideology will

\textsuperscript{g} Both of these variables were converted to 2011 dollars using the CPI-U and logged.
be expressed in the ideology of state lawmakers. The first variable is an indicator variable for the party affiliation of a state’s governor. *Governor is a Democrat* will equal 1 when a state’s governor is a Democrat and 0 when otherwise. *Proportion Democrat in State House* is the fraction of lawmakers in state’s lower house who are Democrats. *Proportion Democrat in State Senate* is the fraction of lawmakers in a state’s upper house who are Democrats. Liberal governments are correlated with more generous welfare policies so I expect all three of these variables to be positively correlated with the dependent variable. Data for these three variables is from the UKCPR, which collected information from The Council of State Governments.

**Sample Size**

Although data on TANF benefits, economic conditions, and fiscal capacity are available for all 50 states and the District of Columbia, I was forced to drop Nebraska and the District of Columbia from my sample. Nebraska has a non-partisan, unicameral state legislature so data on two of my ideology variables is unavailable. The District of Columbia has neither a legislature nor a governor so these data are not available. The District of Columbia is also an outlier when it comes to race and ethnicity. It is the only unit in the sample to have a majority Black population. For this reason, I assume that racial threat may not operate the same way in D.C. as it does in other states where Black is a minority group. The valid sample size for my analysis is 735, which includes 15 years of data for the remaining 49 states.

**Methods**

I estimate a fixed effects regression model to analyze the relationship between changes in racial composition, economic conditions, and TANF benefits. Using fixed effects allows me to control for time-invariant characteristics unique to each state – the inherent “Alaskaness” of
Alaska and so on. I do not include year fixed effects because I am interested in economic conditions affecting all states, which vary over time. My regression model is specified as:

\[
\text{TANF Benefits}_{it} = \beta_0 + \gamma_{it}\beta_1 + \delta_{it}\beta_2 + \rho_{it}\beta_3 + \eta_{it}\beta_4 + \gamma_{it} \cdot \delta_{it}\beta_5 + \alpha_i + \mu_{it}
\]

where \(i\) represents the state in year \(t\), \(\gamma\) is a vector representing variables that measure changes in a state’s racial composition, \(\delta\) is a vector for economic variables, \(\rho\) is a vector for fiscal capacity variables, \(\eta\) is a vector of ideology variables, \(\gamma \cdot \delta\) is an interaction between racial composition and economic conditions, \(\alpha_i\) are time-invariant state characteristics, and \(\mu_{it}\) is the error term.
**RESULTS**

Table 2 presents the results of the state fixed-effects regression. For all of these models the dependent variable is the maximum cash TANF benefit available for a family of three, in 2011 dollars. Model (I) is a preliminary analysis of the interaction between economic conditions and changes in state demographics. The analysis is refined in models II and III.

Model (I) uses broad measures of economic conditions and the potential for racial threat. The variables of interest in this model are indicator variables: two for a *Large Increase in Proportion Black* and *Large Increase in Proportion Hispanic*, and an indicator variable for *Great Recession Year*.

*Great Recession Year* is significant at the 10% level and the coefficient is negative. This variable controls for the unique effects of 2007, 2008, and 2009 across all states. If TANF benefits responded countercyclically to the recession we would expect this coefficient to be positive. Instead, it appears that TANF cash benefits, like caseloads, did not respond countercyclically.

There are also interactions of each race variable and the recession variable. Neither race variable is significant on its own. Tests of joint significance shows that *Large Increase in Proportion Black* and *Great Recession Year* are jointly significant predictors of TANF benefits\(^h\), as are *Large Increase in Proportion Hispanic* and *Great Recession Year*\(^i\).

\(^{h}\) F-test of joint significance: F = 3.23, degrees of freedom = 48, p-value < 0.05.
\(^{i}\) F-test of joint significance: F = 2.29, degrees of freedom = 48, p-value < 0.10.
<table>
<thead>
<tr>
<th>Independent Variables</th>
<th>(I)</th>
<th>(II)</th>
<th>(III)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Racial Composition</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Large Increase in Proportion Black from Previous Year</td>
<td>4.13</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(3.44)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Large Increase in Proportion Hispanic from Previous Year</td>
<td>-2.08</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(3.01)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Change in Proportion Black from Previous Year</td>
<td></td>
<td>703.50</td>
<td>9,343.05**</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(1,083.81)</td>
<td>(4,403.38)</td>
</tr>
<tr>
<td>Change in Proportion Hispanic from Previous Year</td>
<td></td>
<td>255.62**</td>
<td>-549.54</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(124.28)</td>
<td>(1,009.97)</td>
</tr>
<tr>
<td><strong>Economic Conditions</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(7.17)</td>
<td>(9.00)</td>
<td></td>
</tr>
<tr>
<td>Unemployment Rate</td>
<td></td>
<td></td>
<td>404.10**</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(153.76)</td>
</tr>
<tr>
<td>Poverty Rate</td>
<td></td>
<td>212.60</td>
<td>233.70</td>
</tr>
<tr>
<td></td>
<td>(164.68)</td>
<td>(159.16)</td>
<td></td>
</tr>
<tr>
<td><strong>Fiscal Capacity</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Median Household Income</td>
<td>321.08***</td>
<td>315.67***</td>
<td>235.95***</td>
</tr>
<tr>
<td></td>
<td>(80.11)</td>
<td>(81.22)</td>
<td>(68.56)</td>
</tr>
<tr>
<td>Gross State Product</td>
<td>-63.32</td>
<td>-60.82</td>
<td>-20.28</td>
</tr>
<tr>
<td></td>
<td>(51.54)</td>
<td>(51.70)</td>
<td>(46.02)</td>
</tr>
<tr>
<td><strong>Ideology</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Governor is a Democrat</td>
<td>2.27</td>
<td>2.17</td>
<td>2.48</td>
</tr>
<tr>
<td></td>
<td>(4.45)</td>
<td>(4.38)</td>
<td>(4.40)</td>
</tr>
<tr>
<td>Proportion Democrat in State House</td>
<td>51.33</td>
<td>49.20</td>
<td>38.33</td>
</tr>
<tr>
<td></td>
<td>(38.88)</td>
<td>(39.23)</td>
<td>(38.56)</td>
</tr>
<tr>
<td>Proportion Democrat in State Senate</td>
<td>65.55*</td>
<td>66.22*</td>
<td>64.71*</td>
</tr>
<tr>
<td></td>
<td>(38.96)</td>
<td>(38.07)</td>
<td>(36.92)</td>
</tr>
<tr>
<td><strong>Interactions</strong></td>
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<td></td>
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<tr>
<td>Large Change in Proportion Black and Great Recession Year</td>
<td>-3.44</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>(7.88)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Large Change in Proportion Hispanic and Great Recession Year</td>
<td>-3.04</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(7.75)</td>
<td></td>
<td></td>
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<tr>
<td>Change in Proportion Black and Great Recession Year</td>
<td>-4,515.28</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(3,858.88)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Change in Proportion Hispanic and Great Recession Year</td>
<td>-1,782.27</td>
<td></td>
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</tr>
<tr>
<td></td>
<td>(2,313.14)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Change in Proportion Black and Unemployment Rate</td>
<td></td>
<td></td>
<td>-222,601.37**</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(101,141.65)</td>
</tr>
<tr>
<td>Change in Proportion Hispanic and Unemployment Rate</td>
<td></td>
<td></td>
<td>20,850.84</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(18,699.25)</td>
</tr>
<tr>
<td>Constant</td>
<td>-2371.67***</td>
<td>-2,345.36***</td>
<td>-1,961.00***</td>
</tr>
<tr>
<td></td>
<td>(294.99)</td>
<td>(299.28)</td>
<td>(228.95)</td>
</tr>
<tr>
<td>Observations</td>
<td>735</td>
<td>735</td>
<td>735</td>
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<tr>
<td>R-squared</td>
<td>0.75</td>
<td>0.75</td>
<td>0.75</td>
</tr>
<tr>
<td>Number of states</td>
<td>49</td>
<td>49</td>
<td>49</td>
</tr>
</tbody>
</table>

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.10
Figure 2 shows the average marginal effects of *Great Recession Year* at different values of *Large Increase in Proportion Black* and *Large Increase in Proportion Hispanic*. The average marginal effect of *Great Recession Year* when a state does not experience a large increase in proportion Black is to decrease predicted TANF benefits by approximately $15. When there is a large increase in proportion Black, the average marginal effect of *Great Recession Year* is to decrease predicted TANF benefits by approximately $18.

**Figure 2.**

Results for the change in proportion Hispanic were similar. The average marginal effect on predicted TANF benefits of *Great Recession Year* for a small, zero, or negative change in proportion Hispanic is approximately $-16$. When there is a large change in proportion Hispanic, the average marginal effect of *Great Recession Year* on predicted TANF benefits is approximately $-19$. This supports my hypothesis that worsening economic conditions during the
Great Recession increased feelings of racial threat, which were manifested in welfare policy and TANF benefits.

Other variables that are significant predictors of TANF benefits in Model (I) are Median Household Income and Proportion Democrat in State Senate. This is consistent with previous literature that finds that a state’s fiscal capacity and ideology of state lawmakers are important factors in benefit determination.

I shift my analysis in Model (II) to the actual changes in proportion Black and proportion Hispanic of a state’s population. Using the actual changes in proportion Black and proportion Hispanic allows for the relationship between race, the recession, and TANF benefits to vary continuously with racial composition. I continue to use the dummy variable Great Recession Year to control for economic conditions and I include controls for state fiscal capacity and ideology.

In Model (II), Change in Proportion Hispanic is the only variable of interest that is significant by itself, at the 5% level. It is also jointly significant with Great Recession Year at the 5% level. Change in Proportion Black is not significant, nor is it jointly significant with Great Recession Year. However, post-estimation shows that Great Recession Year is a useful predictor of TANF benefits at certain levels of Change in Proportion Black. The average marginal effects of Great Recession Year on predicted TANF benefits are large and positive when Change in Proportion Black is at -0.02, or when the proportion of a state’s population that is Black decreases by 2 percentage points from the previous year. The average marginal effect decreases but stays positive until Change in Proportion Black reaches zero. The average marginal effect of

\[ \text{F-test of joint significance: } F = 3.69, \text{ degrees of freedom} = 48, \text{ p-value} < 0.03. \]
Great Recession Year becomes more negative as Change in Proportion Black reaches 0.01, which is close to the largest value in the sample.

The trend is similar for Change in Proportion Hispanic. At negative values of the variable, which represent a decrease in a state’s Hispanic population, the predicted average marginal effects are positive. When Change in Proportion Hispanic is at zero, the average marginal effect of Great Recession Year is negative and becomes more negative as Change in Proportion Hispanic increases. However, the results are not statistically significant. The confidence intervals of the average marginal effects cross zero for all values of Change in Proportion Hispanic in the sample.

Model (III) replaces the Great Recession Year indicator variable with a state’s unemployment rate. Unemployment Rate is a continuous variable, which allows for the state of the economy to vary in the analysis. This variable is interacted with Change in Proportion Black and Change in Proportion Hispanic and the same control variables are included in the model.

In this model, Unemployment Rate is statistically significant at the 5% level and the coefficient is positive. This is different from the previous two models, in which the control for economic conditions, Great Recession Year, had a negative coefficient. The positive coefficient on Unemployment Rate provides some evidence that, holding changes in racial composition at zero, TANF benefits do respond to business cycles.

However, when interacted with Change in Proportion Black, the positive correlation between Unemployment Rate and TANF benefits disappears. The coefficient on the interaction term is statistically significant at the 5% level, meaning the effect of each of the variables
depends upon the level of the other variable. Figure 3 shows the average marginal effects of the unemployment rate at different levels of *Change in Proportion Black*.

*Figure 3.*

![Average Marginal Effects of Unemployment Rate with 95% Confidence Intervals](image)

When a state’s Black population is shrinking (when *Change in Proportion Black* is negative), the average marginal effect of *Unemployment Rate* on predicted TANF benefits is positive. It becomes less positive as *Change in Proportion Black* approaches zero. When *Change in Proportion Black* is greater than zero, the average marginal effect of *Unemployment Rate* is negative. It becomes more negative as *Change in Proportion Black* increases.

The results from Model (III) show that the correlation between changes in a state’s racial composition and its TANF benefits does change with economic conditions. Figure 4 shows predicted TANF benefits vary with *Unemployment Rate* and *Change in Proportion Black*. 

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At low levels of unemployment predicted TANF benefits are similar for both a decrease in proportion black and an increase.\(^k\) As the unemployment rate rises the predicted benefits diverge. Predicted benefits increase with the unemployment rate when the Black population shrinks but decrease when the Black population grows. When the Black population grows, the linear prediction of benefits even becomes negative at the highest levels of unemployment.

However, the results are not the same for Change in Proportion Hispanic. Unlike in models (I) and (II), the predicted average marginal effects (shown in Figure 5) of Unemployment Rate appear to increase as Change in Proportion Hispanic increases, but the results are not

\(^k\) -0.02 is approximately the smallest value in the sample for Change in Proportion Black and 0.02 is approximately the largest value.
statistically significant. This could be the case if Hispanics are not seen as threatening to social arrangements and economic resources.

**Figure 5.**

As the unemployment rate increases, predicted TANF benefits increase when *Change in Proportion Hispanic* is both positive and negative, as seen in Figure 6. When the size of the Hispanic population decreases\(^1\), predicted TANF benefits increase slightly from low levels of unemployment to high levels of unemployment. When the size of the Hispanic population increases, the predicted TANF benefits increase dramatically from low levels of unemployment to high levels of unemployment.

\^1 -0.01 is approximately the smallest value of *Change in Proportion Hispanic* in the sample and 0.05 is approximately the largest value.
If majority groups feel threatened by a growing Hispanic population and TANF benefits change accordingly, the expected result would be the opposite. However, the results are not statistically significant and there is a large overlap between confidence intervals for three of the four predictions.

Other significant findings from all three models were the positive correlations between TANF benefits and a state’s median household income and proportion Democrat in the state senate. These results confirm previous studies that found positive correlations between generosity and individual income and liberal governments. It is not possible to tell from these specifications if individual income is correlated with TANF benefits because it influences voter preferences, increases state fiscal capacity, or both.
DISCUSSION AND CONCLUSION

Major Findings

My empirical analyses tested the hypothesis that the correlation between a state’s racial composition and TANF benefits depends on economic conditions. The results of the regression shown in Model (III) confirm this hypothesis. As predicted, as the unemployment increases, the correlation between the size of a state’s Black population and the state’s TANF benefits becomes more negative. This suggests that racial threat plays a role in benefit determination.

My analysis shows that changes in a state’s Black population are important for benefit determination, but the results do not hold for changes in a state’s Hispanic population. The results for Change in Proportion Hispanic were inconsistent across different specifications and not statistically significant. This is consistent with previous research on welfare benefits and policies. This could suggest that the history of federal public assistance is still an important influence.

This paper attempts to offer a possible explanation for the lack of response by TANF in the Great Recession. Unlike other federal safety net programs, TANF barely responded to the economic downturn. I find evidence that the extraordinary economic conditions of the Great Recession changed the correlation between race and welfare generosity.

Policy Implications

TANF (and its predecessor programs) is different from other federal assistance programs in an important way: States choose the size of the benefits (Falk, 2013). This allows voter preferences to influence TANF policies in a way that they cannot influence programs like SNAP. Similar to previous research, my findings suggest that TANF policies are influenced by racial
discrimination. To address the problem of discrimination, the link between voter preferences and policies must be weakened. One option to accomplish this would be to set federal minimums for benefit amounts and maximums for work requirements, sanctions, and other such policies.

**Suggestions for Future Research**

In this paper, I looked only at the relationship between a state’s racial composition and the maximum cash TANF benefit for a family of three. There may be other variables in which this relationship is stronger or responds more quickly to changes. Basic assistance (the category of TANF spending that covers cash assistance) accounted for less than one-third of TANF money spent in FY2012 (Falk, 2013). Some states have barely touched the nominal value of their cash benefits, allowing their real value to be eroded by inflation. This is another topic that deserves more research.

State lawmakers have other policy levers available that may be used more widely to affect who receives assistance and how much. Welfare reform imposed a number of new restrictions on eligibility. There are federal minimum standards for work requirements and time limits. States are free to set their own minimums above the federal standards. States also have the ability to impose sanctions on recipients who do not comply with the program rules. These policies, and eligibility rules, can be used to influence a state’s welfare caseload in a way that may be politically easier than cutting a dollar amount. Future research could look for evidence of group threat influencing changes in these policies regressing a similar interaction model on state policy choices.
REFERENCES


