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Signe-Mary McKernan
*Urban Institute*

Robert I. Lerman
*Urban Institute*

Nancy Pindus
*Urban Institute*

Jesse Valente
*Abt Associates*

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The Impact of Welfare Policy on the Employment of Single Mothers Living in Rural and Urban Areas

Signe-Mary McKernan, Robert Lerman,* Nancy Pindus, and Jesse Valente
The Urban Institute
and
*American University

Moving recipients off welfare rolls and into employment was one of the primary goals of the Personal Responsibility and Work Opportunity Reconciliation Act (PRWORA) of 1996. Early evidence indicates that since PRWORA was enacted, caseloads, unemployment rates for the working-age poor, and child poverty rates have all declined, but—as this volume addresses—perhaps not uniformly across all regions of the United States. Evidence from selected studies suggests that nonmetropolitan (nonmetro) areas are faring worse than metropolitan (metro) areas in responding to changes in the welfare system (Bosley and Mills 1999; Rural Policy Research Institute 1999). So far, however, the case for a weaker response in nonmetro areas is far from clear. This chapter presents new evidence on area differences in the ability to achieve a major goal of PRWORA, i.e., expanding employment among potential welfare recipients. This issue is of considerable importance to nonmetro areas, given that 20 percent of working-age welfare recipients live in nonmetro areas and the special hardships observed in nonmetro areas may indicate the need to adjust policy to deal with area differences.2

Because single mothers and their families are the primary beneficiaries of cash welfare, we focus on differences between nonmetro and metro areas in the employment trends of single mothers. Specifically,
we look at changes in employment among single mothers between the period 11 months prior to PRWORA and 3 years later. To avoid attributing gains in employment to a healthy economy, we focus on the extra gains achieved by single mothers beyond those achieved by a comparison group. Because welfare policy changes affected single parents but not the comparison group, the different gains experienced by single mothers represent one estimate of the effects of several policy changes. The shift from the Aid to Families with Dependent Children (AFDC) program to the Temporary Assistance for Needy Families (TANF) program was not the only change in welfare policy that began in 1996. The expansion of the Earned Income Tax Credit (EITC) passed in 1993 but only became fully operational for the 1996 tax year. Increases in the availability of subsidized child care and health insurance improved the work incentives among single mothers after 1996. Our estimates thus link changes in employment among single mothers to changes in several social policies, not simply the dramatic transformation of the cash assistance program for families with children.

The chapter uses field research in 12 selected rural areas and monthly data from the nationally representative Current Population Survey (CPS) to analyze the relationship between nonmetro and metro locations, changing welfare policies, and the employment of single mothers. To add to the rapidly growing quantitative welfare reform literature, we focus on the effects of welfare changes on employment rather than on caseloads. We also use a “difference-in-difference” approach. The basic idea is to assess what took place during the first few years after the passage of TANF by comparing changes in employment of welfare-eligible single mothers with employment changes of a comparison group not eligible for welfare. This approach departs from the common method of focusing on deviations from time trends, which measures the trend of employment and looks for changes from that trend around the time of welfare reform. Finally, we use monthly rather than annual data, and we analyze the different effects of welfare changes in nonmetro and metro areas.

PRWORA increased the focus on work by imposing a five-year lifetime limit on receiving federal welfare benefits (and permitting states to impose even shorter time limits), penalizing states that have too few recipients in work activities, and requiring recipients to participate in work activities within two years of receiving benefits. Within
this framework, states have considerable flexibility in designing and operating their welfare programs.

PRWORA became law in August 1996 and by October 1997, all state TANF plans had been approved. Although variation in state welfare policies was already under way by the mid 1990s under federal waivers, our focus is on the post-PRWORA period. By 1998–1999, state TANF programs were fully implemented and were using the flexibility provided first through waivers, and then under TANF, in setting eligibility and benefits, time limits, work participation requirements, and other aspects of personal responsibility, including school attendance, immunization compliance for children, and family caps (that is, no increase in benefits for children conceived while the mother is receiving cash assistance). Beyond rules for cash assistance programs, PRWORA provides states with flexibility in funding and administering other services that support working parents, including child care assistance programs (Long et al. 1998) and transportation services to support welfare reform’s employment goals (Nightingale 1997).

Employment rates of single mothers might differ between nonmetro and metro areas because of differences in economic growth, job availability, wage levels, public transportation, and access to child care. Geographic dispersion of the nonmetro poor may limit their access to social services that could help overcome barriers to getting and keeping jobs (Deavers, Hoppe, and Ross 1996; Rural Policy Research Institute 1999). Differences in work incentives could also lead to different employment rates of single mothers in nonmetro and metro areas. Recent work by Lerman, Duke, and Valente (1999) found slightly greater financial incentives to work in nonmetro areas than in metro areas. Welfare benefits are generally lower in nonmetro areas while the federal EITC and Food Stamp program benefits are the same throughout the country. Because welfare benefits decline nearly a dollar for each dollar of earnings, going to work means giving up more cash welfare benefits in metro than in nonmetro areas in exchange for the same amount of earnings, food stamps, and EITC payments. As a result, the net gain from working at the minimum wage or another low wage will be generally higher in nonmetro areas than in metro areas. Moreover, among those working at the minimum wage, nonmetro residents will reach higher incomes relative to the average than metro residents because average incomes are lower in nonmetro areas.
The effects of welfare policy changes on employment may differ as well. Vehicle asset limits (limits on the value of a vehicle that an individual can own and still be eligible for welfare) may impose greater restrictions on nonmetro residents, who require reliable automobiles for long commutes to work. The lack of public transportation or reliable private transportation may serve as a disincentive to employment or may restrict individuals to low-paying jobs close to home. Finding employment in some nonmetro areas may take longer because there are a limited number of available jobs; consequently, clients may risk losing benefits if they exceed time limits. Work activity requirements in areas of limited employment opportunities may be filled by part-time employment, community service, or skills training. These activities could lead to full-time employment, but higher unemployment may make such transitions less likely in nonmetro areas. Bosley and Mills (1999) found that nonmetro southwest Virginia has higher rates of unemployment and lower rates of female labor participation than metropolitan northern Virginia.

This chapter looks at the effects of welfare policy changes from two perspectives. We begin with reports from field studies on the operation of welfare programs in 12 selected nonmetropolitan areas. Although we find important program and environmental barriers to employment for welfare recipients in these areas, the distinction between nonmetro and metro areas is not as stark as anticipated. In light of extensive field work in metropolitan areas conducted as part of the Urban Institute project “Assessing the New Federalism,” we find that many of the issues faced by these rural communities are similar to those faced by any poor community trying to serve its neediest citizens. Nevertheless, remote locations, sparse population, and limited economic development do appear to exacerbate the problems of the poorest rural communities visited (Pindus 2000). We then develop estimates of the gains in employment induced by welfare policy and explain how these gains vary between metro and nonmetro areas in the nation as a whole. The next sections describe the empirical models, data, and the empirical results. Our conclusions are sanguine for nonmetro areas. Neither the site visit evidence nor the national data indicate that welfare policy is leading to worse outcomes for single mothers in nonmetro than in metro areas.
HOW WELFARE REFORM AFFECTS NONMETROPOLITAN AND METROPOLITAN AREAS

Site visits were held in 12 localities in Arkansas, California, Maine, and Alabama to examine the implementation of program rules in several, distinctive local settings. The sites selected varied by economic, geographic, and demographic characteristics, the TANF benefit level, the unemployment rate, the percentage of families in poverty, the number of TANF recipients, the AFDC/TANF caseload change between 1993 and 1998, the percentage of the state’s population that was foreign born, and transfer payments as a percentage of total personal income. State TANF policies, including the strictness of work activity requirements, sanctions, time limits, and exemptions, varied widely among states.

We intentionally oversampled the South because more rural TANF and food stamp recipients lived there. The 12 sites included counties adjacent to large metropolitan areas and counties much more isolated. Unemployment rates in the selected counties ranged from 5.1 percent to 25.7 percent in 1998. The counties relied on a variety of industries, from farming to government, services, and manufacturing. Four of the selected counties had an African-American population of more than 40 percent, and two of the counties included a substantial proportion of Hispanics.

At the two-day site visits, we interviewed welfare staff (including the county welfare director, case managers, eligibility workers, and supervisors of welfare, food stamps, and work-related programs for welfare recipients), employment and training service providers, child care referral agency staff, emergency service providers such as food banks and shelters, and providers of substance abuse treatment, mental health, and transportation. We also met with community representatives in those local areas with coalitions working on welfare reform.

In most counties, low-wage jobs were readily available, but a few counties not adjacent to metro areas were experiencing quite high unemployment. Employment in some counties is highly dependent on a few firms or industries and thus subject to considerable fluctuations. Service and retail trade jobs are most accessible, but the pay is low. In fact, low pay is widespread across many types of jobs.
The most serious barriers to jobs facing welfare recipients, according to most respondents, were inadequate transportation and limited access to employment services. Given the lack of public transportation, car ownership is important, but many lack the resources to maintain a car in operating condition. The long distances in nonmetro areas meant that transportation problems limited access not only to employment, but also to child care, health care, and other services (Rural Policy Research Institute 1999). At the same time, several sites have tried to limit the transportation barriers by establishing van pools, providing assistance for car repairs, having caseworkers drive clients to service providers, and expanding county-operated bus routes. The transportation problem could influence work outcomes indirectly to the extent that it limits the implementation of work requirements. Although most counties continue to enforce rigorous work rules, some relax the provisions in cases where transportation is unavailable.

The special importance of car ownership in rural areas increases the possible negative impact of asset limits in the food stamp and other programs. Under PRWORA, states have the flexibility to set their own asset rules for TANF eligibility. However, for the time period of this study, all states were subject to the $4,650 vehicle limit for food stamp eligibility for non-TANF food stamp applicants. Officials identified these limits as problems in a few counties. The effect on work, however, is uncertain. In some cases, recipients may be deterred from having an adequate car because it would disqualify them from food benefits. In others, working people with cars worth more than the asset limit may simply forego food stamps.

Many of the barriers cited in general studies of welfare populations surfaced in our rural interviews (Clark et al. 1998; Geen et al. 1998; Pindus et al. 1998; Pindus 2000). Respondents commonly cited a lack of affordable housing and a limited availability of mental health, substance abuse treatment, domestic violence, and emergency food and shelter services in nonmetro communities. However, it is unclear that these problems were more severe in rural areas.

Although labor market conditions varied across the sites visited, employment opportunities, especially for women, were dominated by minimum wage, service industry jobs with little opportunity for advancement. Contrary to traditional views, most rural local economies were not heavily dependent on agriculture, and seasonal employment
was important in only one or two local sites. However, many employment positions were part-time or intermittent. Not surprisingly, counties adjacent to metropolitan areas had better job opportunities than nonadjacent counties. Particularly in the rural South, low education is a substantial barrier to employment.

The availability, duration, and ease of access to transitional benefits are important factors in employment decisions and the move toward self-sufficiency. Especially in the South, where income eligibility levels are low, many families are no longer eligible for TANF once employed. In these states, respondents pointed to the ease of accessing transitional Medicaid benefits and subsidized child care as important factors for remaining off welfare. Alabama, Arkansas, and Maine provide one year of transitional child care. Reports from these states indicate that people were returning to TANF after one year in order to obtain additional child care benefits. California provides two years of transitional child care. Respondents do not see the lack of available child care as a particularly important barrier so long as subsidies are available. Most but not all rural counties in the sample have licensed centers. Gaps in supply exist, but there is no indication they are more serious than in urban areas.

The site visits revealed differences in state and local practices regarding the ease of accessing transitional benefits. In some sites, when a client left cash assistance, her or his case was automatically transferred to a caseworker who handled transitional benefits; in other sites, the client had to take the initiative to apply for transitional benefits. The timing and method (e.g., in-person interview, mail-in form) for recertification varied as well in ways that may affect access.

Most of the jobs obtained by welfare recipients did not provide health insurance or other benefits. The information reported was consistent with the predominance, in rural areas, of small employers who are less likely to provide health care insurance (Rural Policy Research Institute 1999). Transitional Medicaid or other subsidized health insurance is expected to have a positive impact on work decisions (Meyer and Rosenbaum 2000).

In summary, the site visits identified inadequate transportation, limited employment services, weak labor markets, low education levels, and shortfalls in transitional benefits as problems in rural areas. Whether these obstacles to employment are more severe or exert a larg-
er impact in nonmetro than in metro areas requires further study. The
next section provides two approaches to testing for larger obstacles to
employment in nonmetro areas.

**EMPIRICAL METHOD**

Our primary empirical approach uses difference estimators to mea-
sure the effect of TANF on the employment of single mothers and to
measure how this effect differs in nonmetropolitan and metropolitan ar-
eas. Difference estimators provide a simple, powerful, and intuitive
tool for evaluation analysis. They enable us to measure the effect of
TANF by using simple differences to answer questions. What is the
difference in employment since TANF? (In other words, after subtract-
ing the average pre-TANF employment level from the average post-
TANF employment level, do we find employment has changed? Is
employment higher after TANF than it was before TANF?) Is the
difference in employment since TANF greater in nonmetro or metro
areas? To explore the role that dissimilar demographic and economic
factors in nonmetro and metro areas play in any differences we find, we
also use regression analyses to estimate the effect of TANF while con-
trolling for these factors.

We use three levels of comparisons to draw conclusions about wel-
fare reform independent from the thriving economy evident since wel-
fare reform. We compare employment in nonmetropolitan areas rela-
tive to metropolitan areas, employment before and after TANF, and
employment for potentially welfare-eligible single mothers relative to
welfare-ineligible single women without children under the age of 18.
Under varying assumptions, simple difference estimators provide us
with a consistent estimate of the relationship between TANF and living
in a nonmetro area.

**Difference Estimator**

We first obtain the difference across areas in post-TANF employ-
ment by subtracting average post-TANF metro employment from aver-
age post-TANF nonmetro employment. This difference is only an ap-
appropriate measure of area differences in TANF’s impact on employment under the following two conditions. First, the pre-TANF employment level must be the same in nonmetro and metro areas. If pre-TANF employment differed between areas, then any difference in the post-TANF employment level could be due to these preexisting differences. Second, the growth in employment in nonmetro and metro areas would have to have been the same in the absence of TANF. If employment was growing over time at a faster rate in metro areas than in nonmetro areas (or vice versa) in the absence of welfare reform, then the difference estimator would wrongly attribute gains to TANF that are actually due to the faster general employment growth. Because these conditions probably do not apply, we turn to a more complicated difference estimator.

**Difference-in-difference estimator**

The derivation of this estimator involves calculating the change in employment of single mothers in nonmetro areas between pre-TANF and post-TANF periods, the comparable change in employment in metro areas, and then the difference in these two changes. This nonmetro/metro difference in the change in employment is the difference-in-difference estimator. It controls for initial area differences in pre-TANF employment rates. The estimator also takes account of greater initial difficulties in being an employed mother in nonmetro versus metro areas that are not attributable to TANF, given that it essentially subtracts any initial advantage or disadvantage of one area over another in the employment of single mothers. However, this difference-in-difference estimator is still only appropriate if the employment growth rates for metro and nonmetro areas would be the same in the absence of TANF. Subtracting one more difference from our estimator controls for differing employment growth rates in nonmetro and metro areas.

**Difference-in-difference-in-difference estimator**

We extend our difference-in-difference estimator to allow employment growth rates to differ by comparing the pre-TANF to post-TANF employment growth of single mothers, which is our treatment group, with that of a comparison group that should experience a similar growth rate but not be affected by welfare reform, in this case, single
females without children under age 18. We use this latter group to control for the general growth in employment for single females because family status is likely to be unimportant to the general time trend of employment for these women; the trends of single females with and without children are comparable. However, family status is important for welfare law and related social policies; single females with children under age 18 may be eligible, but single females without children under age 18 are ineligible. Thus, TANF should affect the employment probability of single females with children under 18, but not those without children.9

One might ask, are single women without children a good comparison group for single females with children? A priori, the answer is yes. There is little reason to expect that the growth rate of employment differs for these two groups. Empirical evidence presented in Figure 9.1 indicates that single females without children are a good comparison group. The pre-TANF employment trends for the two groups are relatively similar, although it is important to note the levels of employment between the two groups need not be similar. The difference-in-difference-in-difference estimator assumes similar employment growth rates for single females with and without children under age 18, but does not assume similar levels of employment for the two groups. Different levels of employment for the two groups are differenced (subtracted) away; they no longer matter because this estimator compares changes in the levels of employment, not the levels of employment.

A potential concern arises from using single females without children under 18 as a comparison group if fertility decisions are affected by welfare policy changes. If so, then TANF could affect whether some females end up in the treatment group or the comparison group and potentially the employment probability of the comparison group. As a result, the difference-in-difference-in-difference model would underestimate the effect of welfare on the employment of single mothers by subtracting its effect on potential single mothers. Because the evidence on the effects of welfare on fertility shows only insignificant or small significant effects, we expect any bias to be small or insignificant.10

By comparing pre-TANF and post-TANF differences in employment rates for single women with children under age 18 (who may be eligible for welfare) and single women without children under the age of 18 (who are ineligible for welfare), we can control for differences in
Figure 9.1  Average Employment Trends of Single Females with and without Children under Age 18

Pre-TANF

Post-TANF

NOTE: All averages are multiplied by 100. The weighted sample of 59,604 single females age 19–45 is from the Current Population Survey group data for the 22 months of 9/95 to 7/96 (pre-TANF) and 9/98 to 7/99 (post-TANF).

both the level and growth rates of employment in nonmetro and metro areas. The difference-in-difference-in-difference estimator compares the change in employment for women with and without children in nonmetro areas with the change in employment for women with and without children in metro areas.

These difference techniques provide simple and consistent estimates of the relationship between nonmetro and metro areas, TANF, and employment under the assumptions mentioned above. Simple difference methods such as these, however, do not control for or identify the effects of additional demographic and economic factors that may affect our outcomes of interest. A regression framework addresses this shortcoming.

**Regression framework**

Our regression model includes demographic and economic variables to determine whether any difference in nonmetropolitan and metropolitan employment is due to different demographic or economic characteristics in the two areas. The model controls for demographic characteristics such as age, education, race, and immigrant status, as well as the local area unemployment rate. We estimate a probit model to provide a non-linear framework for our binary dependent variable, employment.

**DATA**

The data for this part of the study come from the monthly outgoing rotation groups in the Current Population Survey. The Current Population Survey (CPS) is a nationally representative monthly survey of approximately 50,000 households. To examine changes in the employment situation associated with welfare policy changes, we use information for the 11-month period before the welfare law (September 1995 to July 1996) and the 11-month period three years later (September 1998 to July 1999). TANF became law in August of 1996, so these comparisons allow up to three years for TANF to affect employment. The CPS sample consists of 59,604 single (widowed, divorced,
separated, or never married) females living in nonmetropolitan and metropolitan areas.

Employment is the primary variable of interest. As defined in the monthly CPS data, an individual is either employed (if working for pay for at least one hour) or non-employed (all other cases) during the survey week. The census definition of metropolitan is an area with a large core population (such as a city with a population of 50,000 or more) and adjacent communities with a high degree of social and economic integration with the core (U.S. Census 2000). People living elsewhere reside in nonmetropolitan areas. A narrower definition would probably represent the concept of rural areas better than the nonmetro area grouping, but no such definition is available in the public-use CPS data. We separate single females into mothers with at least one child under 18 and other single females and distinguish between the pre- and postwelfare change. In multivariate analyses, we control for the following characteristics: age, age squared, and indicators for race or ethnicity, education level completed, and non-U.S. citizenship.

To obtain monthly average measures of unemployment rates in each type of area (central city, balance MSA, nonmetro, not identified), we tabulate two measures, based on information from all rotations of the CPS monthly data for our 22-month period of interest. The first measure excludes single females from the weighted mean calculation in order to avoid including members of our study population in our independent measure of the unemployment rate. The second measure includes all respondents age 16 and over in the weighted mean calculation. Our results are not sensitive to the measure used.

EMPIRICAL RESULTS

In the three years since TANF, labor market and welfare indicators all show gains nationally (Table 9.1). The employment–population ratio (hereafter called employment rate) increased 1.4 percentage points, the unemployment rate fell 1.2 percentage points, and welfare case-loads fell 43 percent. Nonmetropolitan and metropolitan areas both shared in the national improvement. However, nonmetro areas were not doing as well prior to reform and saw less of an improvement after
Table 9.1  Employment, Unemployment, and Welfare Caseloads

<table>
<thead>
<tr>
<th>Time period</th>
<th>Employment/ population ratio(^a,b) (%)</th>
<th>Unemployment rate(^b) (%)</th>
<th>No. of welfare caseloads(^c) (AFDC/TANF)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-TANF, 9/95–7/96</td>
<td></td>
<td></td>
<td>4,415,000</td>
</tr>
<tr>
<td>National</td>
<td>62.9</td>
<td>5.6</td>
<td></td>
</tr>
<tr>
<td>Nonmetro</td>
<td>61.3</td>
<td>5.9</td>
<td></td>
</tr>
<tr>
<td>Metro</td>
<td>64.6</td>
<td>5.4</td>
<td></td>
</tr>
<tr>
<td>Post-TANF, 9/98–7/99</td>
<td></td>
<td></td>
<td>2,536,000</td>
</tr>
<tr>
<td>National</td>
<td>64.3</td>
<td>4.4</td>
<td></td>
</tr>
<tr>
<td>Nonmetro</td>
<td>61.9</td>
<td>4.8</td>
<td></td>
</tr>
<tr>
<td>Metro</td>
<td>66.1</td>
<td>4.2</td>
<td></td>
</tr>
<tr>
<td>Difference, post-TANF – pre-TANF (pct. pt.)</td>
<td>1.4</td>
<td>−1.2</td>
<td>1,879,000 (−43%)</td>
</tr>
<tr>
<td>National</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nonmetro</td>
<td>0.5</td>
<td>−1.1</td>
<td></td>
</tr>
<tr>
<td>Metro</td>
<td>1.4</td>
<td>−1.1</td>
<td></td>
</tr>
</tbody>
</table>

\(^a\) Also called “employment rate” in text.
\(^b\) Weighted employment and unemployment means calculated from all rotations of the Current Population Survey for the specified period.
\(^c\) Welfare family caseloads for August 1996 (pre TANF) and June 1999 (post TANF) as measured by the U.S. Department of Health and Human Services Administration for Children and Families (1999).

reform. Pre-TANF employment rates were lower in nonmetro areas (61.3 percent) than metro areas (64.6 percent) and improved less over the three-year period (0.5 percentage points nonmetro, 1.4 percentage points metro). Similarly, pre-TANF unemployment rates were higher in nonmetro areas (5.9 percent nonmetro, 5.4 percent metro), although the improvement was similar (1.1 percentage points for nonmetro and metro areas, respectively).

**Difference Estimators**

The difference estimators provide a measure of the effects of TANF on employment and how any effects differ between nonmetro and metro areas. The first results are for all single females age 19–45. The next set of findings shows patterns for less- and more-educated single mothers and for white, Hispanic, and African-American single mothers.

**All single females, ages 19–45**

During the pre-TANF period, single mothers with children under age 18 had identical employment rates in nonmetro and metro areas (Table 9.2). Single mothers in nonmetro areas experienced increases in employment rates of 8 percentage points, from the pre-TANF level of 64 percent to the post-TANF level of 72 percent. This jump in employment is high in percentage terms and in relation to the experience of other groups. To test whether these gains came mainly from the economy or from the social policy changes culminating with TANF, we compare the employment gains of single mothers with those of our comparison group, single women in the same age group but without children. Note that the employment rate of the welfare-ineligible women started at 71 percent, a rate much higher than the initial rate for single mothers. However, single women without children experienced no significant increase in jobholding; employment remained close to 71 percent in the post-TANF period. Thus, TANF and other social policies appear to have raised the employment of single mothers relative to that of their ineligible counterparts in nonmetro areas. A summary estimate of this effect appears in the final row in the first data column. It subtracts the comparison group’s gain in employment from the increase experienced
Table 9.2 Differences in Average Employment Probabilities of Single Females

<table>
<thead>
<tr>
<th>Category</th>
<th>Nonmetro</th>
<th>Metro</th>
<th>Nonmetro minus metro (pct. pt.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mothers with children age &lt;18 (C=1)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pre-TANF level, 9/95–7/96 (%)</td>
<td>63.9**</td>
<td>63.7**</td>
<td>+0.2</td>
</tr>
<tr>
<td>Post-TANF level, 9/98–7/99 (%)</td>
<td>71.5**</td>
<td>73.1**</td>
<td>–1.5a</td>
</tr>
<tr>
<td>Difference, Post/pre-TANF (pct. pt.)</td>
<td>+7.6**</td>
<td>+9.4**</td>
<td>–1.8</td>
</tr>
<tr>
<td>Females without children age &lt;18 (C=0)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pre-TANF level, 9/95–7/96 (%)</td>
<td>70.7**</td>
<td>75.6**</td>
<td>–5.0**</td>
</tr>
<tr>
<td>Post-TANF level, 9/98–7/99 (%)</td>
<td>71.7**</td>
<td>76.3**</td>
<td>–4.7**</td>
</tr>
<tr>
<td>Difference, Post/pre-TANF (pct. pt.)</td>
<td>+1.0</td>
<td>+0.7</td>
<td>+0.3</td>
</tr>
<tr>
<td>Females with and without children age &lt;18</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Difference-in-difference (pct. pt.)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(post-TANF – pre-TANF</td>
<td>C=1) – (post-TANF – pre-TANF</td>
<td>C=0)</td>
<td>+6.7**</td>
</tr>
</tbody>
</table>

NOTE: Weighted sample of 59,604 single females age 19 to 45 is from the Current Population Survey outgoing rotation group data for the 22 months 9/95–7/96 (pre-TANF) and 9/98–7/99 (post-TANF). All averages are multiplied by 100. ** = Statistical significance at the 0.05 level.

a Bold values are estimates of the differential effect of TANF between metro and nonmetro areas.


by single mothers. Because single women without children saw little or no growth in employment, the policy effect on single mothers in nonmetro areas remains large, at over 6 percentage points.

How do these gains compare with gains in metro areas? As the second data column shows, single mothers in metro areas achieved large and significant employment gains (9 percentage points, or 15 percent) between the pre- and post-TANF periods, while no significant difference over this time took place for the comparison group. Thus, the net social policy effect in metro areas remains at 9 percentage points.

Estimates of the differential effect of TANF between nonmetro and metro areas appear (in bold) in the third data column of Table 9.2. Our first difference estimator measures the simple difference between the
post-TANF employment rate in nonmetropolitan and metropolitan areas (by subtracting the post-TANF metro employment level [73.1 percent] from the post-TANF nonmetro employment level [71.5 percent]) and is shown in the second row in data column 3. Although nonmetro areas had lower post-TANF employment levels than did metro areas, the difference was only 1.5 percentage points and was not statistically different from zero. However, as explained in our description of the empirical method, this simple difference estimator is only appropriate if the pre-TANF employment level was the same in nonmetro and metro areas (among other conditions).

The second and third estimators find slightly larger, but still statistically insignificant, effects. The second estimator, difference-in-difference, compares differences in pre- and post-TANF employment in nonmetro (7.6 percentage points) and metro (9.4 percentage points) areas by subtracting the metro difference from the nonmetro difference (7.6 minus 9.4). The difference-in-difference estimator finds that the social policy effect was –1.8 percentage points, or 19 percent smaller in nonmetro areas than in metro areas. This method controls for differences in initial employment rates, but does not control for differential changes in the economies of metro and nonmetro areas that might have affected employment growth in the absence of TANF and other social policies.

The third estimator, difference-in-difference-in-difference, controls for area economic growth by subtracting each area’s employment gains for our comparison group—single women without children under age 18 who are ineligible for welfare—from each area’s employment gains of single mothers. Because there was little difference in pre- and post-TANF employment for the comparison group, the third estimator yields results similar to the second, with TANF and other social policies exerting a 2 percentage point (or 24 percent) smaller effect in nonmetro areas than in metro areas, though the difference is not statistically significant.

Overall, the results presented in Table 9.2 suggest that TANF and other social policies increased the employment of single mothers by 7 to 9 percentage points in nonmetro and metro areas. The increase may have been slightly smaller in nonmetro areas than in metro areas, but the measured gap is not large enough to declare a clear difference between the two areas.
Less-educated and more-educated single females

How should the effects of TANF and related policies vary by education? On one hand, the social policy impact on single-parent employment should be greater among less-educated women (less than a high school degree) because they are more disadvantaged and more likely to be on welfare and thus affected by welfare policies, such as work requirements. On the other hand, social policies could have a smaller effect on the employment of less-educated women because these women are the least skilled and, therefore, have fewer ways of responding to the various incentives and pressures to work. It is important to note that, contrary to popular opinion, a significant proportion (ranging from 9 percent to 26 percent) of welfare recipients have higher levels of education (i.e., more than a high school education).\textsuperscript{16}

The differing social policy effect between nonmetro and metro areas may also differ for less- and more-educated single mothers. For example, if there are fewer low-skilled and more high-skilled jobs available in nonmetro areas than in metro areas, then we would expect TANF and other policies to have a smaller effect on the less educated and a larger effect on the more educated in nonmetro areas. The results presented in Table 9.2 may mask these differences by aggregating the averages for less- and more-educated mothers. In this analysis, we distinguish between two groups: women with a high school education or less (less educated) and women with more than a high school education (more educated).

The patterns of social policy effects are complex, as shown in Table 9.3. Note that the rows are similar to those of Table 9.2; data columns 1 to 3 relate to the less educated and data columns 4 to 6 relate to the more educated. Both before and after TANF, employment levels are much higher for the more educated than for the less educated. For example, prior to TANF, the nonmetro employment rate for those with a high school degree or less was 58 percent, well below the 73 percent rate for those with more than a high school degree. The 15 percentage point disparity remains in the post-TANF period. The disparity is even larger in metro areas, where it starts at 24 percentage points prior to TANF and falls to 20 percentage points afterwards.

Despite initial differences in job-holding by education, changes in employment rates are similar among less- and more-educated single
Table 9.3 Differences in Average Employment Probabilities of Single Females, by Education

<table>
<thead>
<tr>
<th>Category</th>
<th>Education ≤ high school</th>
<th>Education &gt; high school</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Nonmetro</td>
<td>Metro</td>
</tr>
<tr>
<td>Mothers with children age &lt; 18 (C=1)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pre-TANF level, 9/95–7/96 (%)</td>
<td>58.5**</td>
<td>53.7**</td>
</tr>
<tr>
<td>Post-TANF level, 9/98–7/99 (%)</td>
<td>65.4**</td>
<td>64.7**</td>
</tr>
<tr>
<td>Difference, post-TANF – pre-TANF (pct. pt.)</td>
<td>+6.9**</td>
<td>+10.9**</td>
</tr>
<tr>
<td>Females without children age &lt; 18 (C=0)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pre-TANF level, 9/95–7/96 (%)</td>
<td>62.6**</td>
<td>66.2**</td>
</tr>
<tr>
<td>Post-TANF level, 9/98–7/99 (%)</td>
<td>65.7**</td>
<td>69.1**</td>
</tr>
<tr>
<td>Difference, post-TANF – pre TANF (pct. pt.)</td>
<td>+3.1</td>
<td>+2.9**</td>
</tr>
<tr>
<td>Females with and without children age &lt;18</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Difference-in-difference (pct. pt.)</td>
<td>+3.8</td>
<td>+8.1**</td>
</tr>
<tr>
<td>(post-TANF – pre-TANF</td>
<td>C=1) – (post-TANF – pre-TANF</td>
<td>C=0)</td>
</tr>
</tbody>
</table>

NOTE: Weighted sample of 59,604 single females age 19 to 45 is from the Current Population Survey outgoing rotation group data for the 22 months 9/95–7/96 (pre-TANF) and 9/98–7/99 (post-TANF). All averages are multiplied by 100. ** = significance at the 0.05 level; * = significance at the 0.10 level.
mothers. Gains between pre- and post-TANF periods ranged from about 7 to nearly 11 percentage points. Estimates of single-mother employment gains net of any increased employment among single women without children appear in the “Difference-in-difference” row. The effects ranged from 4 to 8 percentage points for less-educated mothers and from 7 to 9 percentage points for more-educated mothers.\textsuperscript{17} The finding of such a large and significant social policy effect on the employment of more-educated, single mothers suggests that these women may not serve as a valid comparison group for measuring the effects of TANF as suggested by some authors (Schoeni and Blank 2000).

The size of the impacts by education varied between nonmetropolitan and metropolitan areas. Within nonmetro areas, TANF and other social policies had a 6 percentage point smaller effect on the employment of less-educated mothers than on that of more-educated mothers (Table 9.3, data columns 1 and 4, difference-in-difference row; difference significant at the 10 percent level [not shown in table]). Within metro areas, social policies had a similar 7–8 percentage point effect on both less-educated mothers and more-educated mothers (columns 2 and 5).

The difference-in-difference row estimates of area differences in net social policy effects reveal differences by education. The social policy effect on employment of less-educated, single mothers shows up as 4 points smaller in nonmetro areas than in metro areas (column 3), although this difference is not statistically different from zero at the 10 percent confidence level. Prior to TANF, less-educated, nonmetro, single mothers were more likely to be employed than their metro counterparts (58 percent nonmetro, 54 percent metro). Post-TANF, the nonmetro and metro levels of employment are similar (65 percent nonmetro and metro). Any greater employment gains in metro areas only served to leave low-education, metro, single mothers with the same level of employment as their nonmetro counterparts. In contrast to the smaller social policy effect in nonmetro areas on less-educated women, the measured impact is a two percentage point larger effect in nonmetro areas among more-educated women.\textsuperscript{18}

White, Hispanic, and African-American single mothers

Table 9.4 presents the difference analysis separately for whites, Hispanics, and African Americans. We might expect different effects
Table 9.4 Differences in Average Employment Probabilities of Single Females by Race/Ethnicity

<table>
<thead>
<tr>
<th>Category</th>
<th>White</th>
<th>Hispanic</th>
<th>African American</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mothers with children age &lt; 18 (C=1)</td>
<td>Nonmetro</td>
<td>Metro</td>
<td>Nonmetro</td>
</tr>
<tr>
<td>Pre-TANF level: 9/95–7/96 (%)</td>
<td>68.0**</td>
<td>72.5**</td>
<td>60.1**</td>
</tr>
<tr>
<td>Post-TANF level: 9/98–7/99 (%)</td>
<td>76.1**</td>
<td>79.7**</td>
<td>53.5**</td>
</tr>
<tr>
<td>Difference, post- – pre-TANF</td>
<td>+8.1**</td>
<td>+7.2**</td>
<td>-6.6</td>
</tr>
<tr>
<td>Females without children age &lt; 18 (C=0)</td>
<td>Nonmetro</td>
<td>Metro</td>
<td>Nonmetro</td>
</tr>
<tr>
<td>Pre-TANF level: 9/95–7/96 (%)</td>
<td>72.9**</td>
<td>79.5**</td>
<td>66.3**</td>
</tr>
<tr>
<td>Post-TANF level: 9/98–7/99 (%)</td>
<td>75.0**</td>
<td>79.9**</td>
<td>58.3**</td>
</tr>
<tr>
<td>Difference, post- – pre-TANF</td>
<td>+2.1</td>
<td>+0.4</td>
<td>-8.0</td>
</tr>
<tr>
<td>Females with and without children age &lt; 18</td>
<td>Nonmetro</td>
<td>Metro</td>
<td>Nonmetro</td>
</tr>
<tr>
<td>Difference-in-difference (pct. pt.) (post- – pre-TANF</td>
<td>+6.0**</td>
<td>+6.8**</td>
<td>1.4</td>
</tr>
</tbody>
</table>

NOTE: Weighted sample of 59,604 single females age 19 to 45 is from the Current Population Survey outgoing rotation group data for the 22 months 9/95–7/96 (pre-TANF) and 9/98–7/99 (post-TANF). All averages are multiplied by 100. ** = statistical significance at the 0.05 level; * = statistical significance at the 0.10 level.

if, for example, minority groups face additional barriers (such as lan-
guage or discrimination) to employment. The last row of the table
(difference-in-difference) shows that TANF and other social policies
increased employment by a range of 6–10 percentage points for all but
the nonmetro Hispanic group, who seem to have experienced essen-
tially no employment gains at all. The higher jump in employment
among African-American single mothers is particularly noteworthy.
These mothers raised their employment by 12 percentage points in
nonmetro areas and 11 points in metro areas. Even after subtracting
the approximate 2 percentage point gains for single, African-American
women without children, the social policy effects on African-American
single parents are about 9 percentage points in both nonmetro
and metro areas, well above the 6-point gains for white single moth-
ers. Moreover, the size of the African-American gains are especially
dramatic given their lower employment levels in the pre-TANF pe-
riod.

Hispanics are the only group showing virtually no increases in em-
ployment in nonmetro areas. Given the 9 percentage point increase in
Hispanic employment in metro areas, social policies apparently exerted
an 8 percentage point smaller effect on Hispanic employment in non-
metro areas than in metro areas, although this difference is not signifi-
cant at the 10 percent confidence level.

Why should TANF affect nonmetropolitan Hispanics differently?
Our site visit findings suggest that English language resources are not
as readily available in some nonmetro areas, making it more difficult
for nonmetro Hispanics to obtain the English language skills necessary
for employment in some positions. Many Hispanics are thus limited to
entry-level service jobs such as hotel housekeeper. If there are fewer
such jobs in nonmetro areas and most less-educated women work, there
may be fewer job opportunities for Hispanics. This situation may be
exacerbated by the fact that nonmetro areas have smaller Hispanic
communities, which means a smaller network to help find or provide
employment.

All together, our results indicate that TANF increased the probabil-
ity of employment for welfare-eligible single mothers (those with chil-
dren under age 18) by 7–9 percentage points in nonmetro and metro ar-
eas. This increase was shared by less- and more-educated single
mothers, and by white, metro Hispanic, and African-American single mothers.

**Regression Model**

To explore whether TANF’s effects in nonmetro and metro areas are due to dissimilar demographic or economic characteristics, we estimated an employment equation that controls for these characteristics. The results yielded social policy effects similar to those revealed in the simple comparisons. The coefficients from the regressions (not shown) indicate that TANF and other social policies increased employment by 9 percentage points for metro single mothers, 2 percentage points more than for nonmetro single mothers, although the difference is not statistically significant at the 10 percent level. According to the regressions, single females with no children under age 18 experienced no statistically significant change in employment in metro and nonmetro areas.

To incorporate a nonlinear framework for our 0-to-1 dependent variable (employment), we estimate a set of probit models (estimates are available on request to the authors). The results from this estimation were very similar in magnitude to earlier findings, even after we control for a variety of individual and area characteristics. For example, we incorporate a measure of the individual’s age, education, whether she was a U.S. citizen, and area unemployment rates. Still, we find no significant difference between the effects of social policies in nonmetro and metro areas.

Although controlling for individual and area characteristics does not alter our estimates of social policy in nonmetro and metro areas, these variables yielded interesting, although not surprising, findings. First, older single females were more likely to be employed than younger single females. Second, all racial and ethnic groups were less likely to be employed than whites. Third, each successive education degree increased the probability of employment. Fourth, single females who are not U.S. citizens were less likely to be employed than females who are U.S. citizens. Finally, adding the monthly unemployment rate—an important determinant of labor market conditions—exerted little effect on the magnitude or significance of our estimates of policy impacts.
CONCLUSION

Based on traditional views about nonmetropolitan areas, past evidence, and site visits, one might expect that work-oriented welfare reforms would be much harder to implement and yield worse outcomes in nonmetropolitan areas than in metropolitan areas. Low population density appears to make travel and connections with services and employment difficult in nonmetropolitan areas. Indeed, Bosley and Mills (1999) found worse employment outcomes in nonmetropolitan areas for a small sample of females in Virginia. In contrast, Lerman, Duke, and Valente (1999) found greater work incentives in nonmetropolitan areas than in metropolitan areas.

Contrary to expectations, we find that the employment level of single mothers was similar in nonmetropolitan and metropolitan areas prior to TANF and gained almost as much in nonmetropolitan areas as in metropolitan areas after TANF. We find no strong evidence that TANF and other social policies affected the employment of single mothers differently in nonmetro and metro areas. Within the group of single mothers, we find some differences by education. Despite the higher unemployment rate in nonmetropolitan areas, less educated, single mothers are more likely than their metropolitan counterparts to have worked prior to TANF. Although metropolitan areas have since caught up, there are gains in nonmetro areas as well. On the other hand, the level of employment for more educated, nonmetro, single mothers falls slightly short of their metropolitan counterparts. However, the level is high in both areas, and the nonmetropolitan gains are as solid as the metropolitan gains. Apparently, the obstacles to employment are not so severe that they prevent nonmetropolitan areas from effectively implementing welfare-oriented policies.

Our results are consistent with those of Danziger (in this volume)—who finds that patterns of work effort, welfare receipt, and the poverty rate are “strikingly similar regardless of place of residence” (p. 31)—and those of Lichter and Jensen (in this volume)—who find “for the most part, recent trends in rural poverty, earnings, and welfare receipt have followed national patterns” (p. 103). Our national-level results are less consistent, although also less comparable, with Gennetian, Redcross, and Miller’s (in this volume, p. 287) state-specific
results. Similar to our results, they find that Minnesota’s welfare reform increased employment in both rural and urban areas. Unlike our results, they find a significant difference in the employment increases between areas; the rural area increases faded over time and fell behind the urban area increases. Surprisingly, much of this difference in Minnesota welfare reform’s effects in rural and urban counties could be explained by the fact that rural Minnesota welfare recipients were better prepared to enter the workforce, reported fewer child care barriers, and were more likely to have been previously married than their urban counterparts.

Considered together with Lerman, Duke, and Valente (1999), our empirical findings suggest that the obstacles to employment do not yield poorer outcomes in nonmetro areas than in metro areas. Nonmetro areas are becoming more diverse, and low-wage service economies are relevant for both nonmetro and metro areas. Similar to metro areas, the growth of the nonmetro service economy has reinforced the mass entry of women into the formal labor market (see Gibbs, in this volume, for a discussion of this trend). As Gibbs concludes, “rural labor markets may be better positioned for welfare reform than is often assumed because rural and urban job structures appear to be converging” (p. 70).

Yet how do we reconcile the empirical findings with the inadequate transportation, limited employment services, low education levels, and shortfalls in transitional benefits identified as problems in our site visits? Although we found a variety of barriers facing single mothers, jobs appeared readily available in most of the rural sites. Perhaps, the most serious rural problems reflect only pockets of poverty or a limited number of nonmetro areas. As Howell reports in this volume, local nonmetro labor markets vary widely in their ability to create jobs for TANF recipients. Our rural sites may not characterize most nonmetro areas, just as pockets of poverty in metropolitan areas do not define all metro areas.

This chapter analyzes only the gains in employment of single mothers, not their gains in earnings. Although women in nonmetro areas may be as likely to be employed, they may be employed in lower paying or more part-time jobs. Additional research is needed to examine whether nonmetro areas do as well as metro areas in raising the earnings of single mothers.
The research reported in this chapter was supported by the U.S. Department of Agriculture’s Economic Research Service, Food Assistance and Nutrition Research Program. The chapter draws on a more technical paper by the authors titled “Metropolitan and Nonmetropolitan Locations, Changing Welfare Policies, and the Employment of Single Mothers,” (working paper no. 192, Joint Center for Poverty Research, Chicago, 2000). The authors thank Amy-Ellen Duke for input to the chapter, Lorna M. Aldrich, Harry J. Holzer, Caroline Ratcliffe, and Douglas Wissoker for comments and advice, Fay Schwartz and Ludovick Shirima for research assistance, and Joyce Morton and Greg Welland for programming and data assistance. Contact information: smckerna@ui.urban.org; phone: (202) 261-5330.

1. PRWORA replaced the federal program Aid to Families with Dependent Children (AFDC) with Temporary Assistance for Needy Families (TANF), which provides block grants to states that can be used for cash assistance, child care, and other services that support the goals of welfare reform.


3. Important contributions to the welfare reform literature have been made by Grogger (2000), Meyer and Rosenbaum (2000), Moffitt (1999), Schoeni and Blank (2000), Wallace and Blank (1999), and Ziliak et al. (2000), among others.


5. See for example, Clark et al. (1998), Geen et al. (1998), and Pindus et al. (1998).

6. Pindus (2000) provides detailed descriptions of the sites and site visit findings.

7. New Food Stamp program regulations, approved in November 2000, exempt all cars with an equity value less than $1,500 and, for cars above this value, exempt one car per adult in the household plus any car used by a teenager to drive to work or to school.

8. See McKernan et al. (2000) for a more technical description of the empirical method.

9. Welfare reform could affect employment of single females without children if it affects the entire labor market for low-skilled workers. It might be that welfare recipients entering the labor force take low-skill jobs and increase unemployment for other low-skilled workers. However, this scenario is unlikely. Lerman, Lo- presti, and Ratcliffe (1999, p. 6) projected that, on average, metropolitan areas “will experience decreases in unemployment, even with the entry of welfare recipients into the labor force, largely because of growth in low-skill employment.”

10. Alternative methods used to control for employment trends have other shortcomings. One approach is to capture trends with year fixed effects and an interaction between a time trend and state variable. However, this approach assumes linear employment trends and requires a longer time period of data.

11. The difference models are based in part on similar models described by Card and Sullivan (1988) and Moffitt (1991).
12. August 1995 and August 1998 were dropped from the data because geographic variables necessary to identify nonmetro and metro areas were not available in the August 1995 CPS data.

13. Of the non-employed, some are counted as officially unemployed because they are available for work and actively seeking a job, while others are outside the labor force.

14. 157 respondents lived in areas that were geographically classified as “not identified” in the CPS. We dropped these respondents from the analysis.

15. A higher pre-TANF level of employment for our comparison group does not pose a problem for our difference estimator. Although our estimator assumes similar trends in employment for single females with and without children, it does not assume similar levels of employment; the levels are differenced away.

16. A significant proportion of more educated welfare recipients are reported from both national-level and state-level data. At the national level, the U.S. Department of Health and Human Services (1995) reported that 9 percent of mothers receiving AFDC in 1995 had more than a high school degree (though the education level was unknown for 43 percent of the sample); Ratcliffe (2000) found that 26 percent of single mothers who received TANF in 1997 had more than a high school education; Loprest (1999) reported that 33 percent of former welfare recipients had more than a high school education; and Pavetti (1995) reported that 53 percent of all first-time AFDC recipients had at least 12 years of education. Using state administrative data, Howell (2000) found that 14 percent of 1996 TANF recipients in Mississippi had more than a high school degree and that a significant number of recipients held college degrees. Howell discusses related findings in this volume (p. 313).

17. Due to the large standard error on this estimate for less-educated women, we cannot reject the hypothesis that the 4 percentage point effect of TANF on low-education single mothers in nonmetro areas is zero. However, we also cannot reject the hypothesis that the 4 percentage point effect in nonmetro areas is the same as the 8 percentage point effect in metro areas.

18. Although neither difference is statistically different from zero at the 10 percent confidence level, the two differences are statistically different from one another at the 10 percent confidence level.

References


