

The Welfare Caseload, Economic Growth and Welfare-to-Work Policies:

An Analysis of Five Urban Areas

Peter R. Mueser
Department of Economics
University of Missouri-Columbia

Julie L. Hotchkiss
Department of Economics and the Fiscal Research Program
School of Public Policy
Georgia State University

Christopher T. King
Center for the Study of Human Resources
University of Texas-Austin

Phillip S. Rokicki
Florida Institute for Career and Employment Training
Florida Atlantic University

David W. Stevens
The Jacob France Center
University of Baltimore

April 29, 2000

A preliminary discussion of our data was presented at the Southern Economic Association annual meeting in Baltimore, MD, on November 8, 1998. We thank Robert Moffitt and David Greenberg, who were the discussants of that paper, for valuable suggestions. Helpful comments on drafts of this paper were provided by Dan Black, Terra McKinnish, Philip Graves, Joe Haslag, Lael Keiser and Robert McNow. We wish to acknowledge the computational assistance provided by Jerome Olson and Kyung Seong Jeon. This research was supported by the U.S. Department of Labor, Employment and Training Administration, Office of Policy and Research, Division of Research and Demonstration, under DOL Agreement K-6558-8-00-80-60 to David Stevens.

Direct correspondence to: Peter Mueser, 118 Professional Building, University of Missouri, Columbia, MO 65211. E-mail: mueserp@missouri.edu; tel. (573) 882-6427; fax (573) 882-2697.

Abstract

This paper uses quarterly data on AFDC (later TANF) recipients in five major urban areas to examine the relative importance of policy reform and economic conditions in explaining the dynamics of the welfare caseload and the employment experiences of welfare leavers. We find that both increases in exits as well as reductions in entry to welfare played an important role in the caseload declines of the 1990s. However, in contrast to previous research, we find that economic conditions are less important in explaining the decline than policy or related changes.

Consistent with the welfare-to-work ideal underlying reform efforts, we find that welfare reforms were accompanied by substantial increases in the employment of those leaving welfare. However, this appears to be largely the result of an increasingly tight labor market rather than the reforms. We conclude that although an economic recession would not boost TANF caseloads to prior levels, it would seriously jeopardize the goal of increasing self-sufficiency of former welfare recipients through employment.

I. Introduction

The last decade has seen extraordinary changes in the welfare programs supporting indigent single parents and their children in the U.S. From its inception in the 1930s through the 1960s, federal Aid to Families with Dependent Children (AFDC) operated on the implicit assumption that a mother's primary job should be caring for her children. With greater acceptance of working mothers, public opinion has gradually shifted away from this view, inducing an increased emphasis on the importance of employment as an alternative to government aid.

Between the late 1980s and 1998, the U.S. welfare system was transformed from a structure allocating cash and in-kind payments according to federal rules to a variety of programs designed by the states focusing on providing transitional financial support and aid in obtaining employment. Although the Work Incentive program (WIN), in effect since 1967, required states to set up programs to aid welfare recipients in obtaining employment, most welfare recipients received no actual services. Despite some differences across states, including large differences in grant levels, federal AFDC rules forced states to set up systems that emphasized complex eligibility rules, often creating bureaucratic obstacles to recipients who wished to obtain employment (Bane and Ellwood, 1994, chapter 1).

Although passage of the federal Family Support Act of 1988 established the JOBS program, which for the first time required that states provide employment-related services to a substantial share of welfare recipients, major program changes did not occur until the 1990s, when many states were granted federal waivers that allowed them to operate programs that modified AFDC rules. Changes to an employment-focused system culminated with passage of the federal Personal Responsibility and Work Opportunity Act in 1996, which replaced AFDC with

Temporary Assistance for Needy Families (TANF). The new legislation specified explicit work requirements for participants as well as limitations on the length of time aid could be received. In contrast to AFDC, TANF did not have the legal status of an entitlement for individuals who met eligibility requirements but instead allowed states to provide aid in accord with a wide range of program structures.

The legislative benchmarks provide only a rough indication of the changes occurring in the effective administration of AFDC and TANF programs. In the 1990s, under federal waivers, many states imposed increasingly stringent work and training requirements on recipients. Equally important, administrative directives in many states shifted program emphasis away from the provision of aid to families and toward finding employment alternatives to public assistance. Bureaucratic change has accelerated as states develop programs under the 1996 federal reform (Nathan and Gais, 1999).

After moderate increases through most of the previous two decades, for the most part tracing increases in the U.S. population, the AFDC caseload had reached 4.0 million by 1990. In the next four years, the caseload increased rapidly to a peak of 5.0 million and then began a decline, falling to 3.9 million in 1997, when AFDC was replaced by TANF in most states. By March 1999, the caseload had declined to 2.7 million, a level not seen since 1971.

While welfare policy has clearly changed over this period, it is unclear whether these changes are responsible for observed caseload declines. After economic stagnation in the early 1990s, growth in the remainder of the decade has been extremely strong, and it appears likely that the economy is at least partly responsible for observed caseload movements. While early studies, based on data from the 1970s, suggested that employment was of relatively little importance in

explaining why individuals left the welfare rolls (O'Neill, Bassi and Wolf, 1987), recent work suggests that it plays an important and growing role (Blank, 1989; Harris, 1993; Hoynes, 1996)

Studies that examine variation in AFDC in the 1970s and 1980s make clear that both economic conditions and policy changes influenced caseloads. In an analysis of aggregate quarterly data for the period 1973 through 1991, Peskin (1993) found that unemployment had a substantial impact on the caseload, as did the welfare reforms instituted in the early 1980s. The growth in single parent families was also a primary factor tending to increase caseloads (see also Moffit, 1998). A careful study by Black, McKinnish and Sanders (1999) opens the possibility that the impacts of economic factors are stronger than they appear, because welfare recipients are unlikely to respond to transitory variation in economic growth. They show that when long-term and clearly exogenous changes in the markets for steel and coal during the 1970s and 1980s impacted labor markets, local expenditures on AFDC in affected areas exhibited substantial responses.

There has been much recent work attempting to identify the relative importance of economic conditions and policy reform in explaining caseload growth and decline in the 1990s. Blank (1997) examined annual caseload data for 51 states for the period 1977-1995. While she found that economic conditions and policy changes influenced caseloads, her model did not explain the caseload increase to 1994. However, the national caseload decline of just over 5 percent in 1994-1995 was explained by her model, with economic factors explaining about two-thirds of the decline. A highly influential study by the Council of Economic Advisors (1997), also using annual caseload data across states over two decades, focused on explaining the 20 percent decline in the welfare caseload from 1993 to 1996, attributing 44 percent to economic growth and

30 percent to the impacts of policy changes associated with federal waivers. The specification of policy measures in this model has been criticized because it includes lead effects, undercutting the causal interpretation (Martini and Wiseman, 1997). Omitting these measures reduces the estimated impact of policy measures by about half.

A revised analysis by the Council of Economic Advisors (1999) finds that, for the period 1996-1998, the imposition of TANF is responsible for about one third of the observed 33 percent decline in the caseload, while economic factors contributed less than one fifth. Other work tends to confirm the importance of policy, although estimated impacts vary (Moffitt, 1999; Bartik and Eberts, 1999) and attempts to identify the impacts of different kinds of policies have not been successful (Gittleman, 2000). The notable exception to the finding that policy variables matter is that of Ziliak et al. (1998), who find that policy has little impact and that economic factors explain all of the caseload decline in the period 1993-1996. Their analysis differs from that of most others in that it uses monthly data for the period 1987-1996. However, the difference in their results is primarily due to the particular lag specification they use, as well as the shorter time series (Figlio and Ziliak, 1999; Wallace and Blank, 1999). Studies also show that welfare reform induces increases in labor force participation (Bishop, 1998; Moffitt, 1999), as well as increases in earnings, declines in poverty, and increases in marriage rates (Schoeni and Blank, 2000) among those most likely to be eligible for welfare.

Changes in tax codes and related policy may have also played a role in reducing welfare caseloads. Meyer and Rosenbaum (1999a) show that annual employment rates for single mothers increased from 74 percent in 1992 to 82 percent in 1996, while the rate for childless single women remained at 93 percent. The most important policy change during this period, they argue, was in

the Earned Income Tax Credit, which increased take-home pay by more than \$1,000 for a single mother earning \$10,000. Their structural models suggest that about one third of the relative growth in labor force participation can be traced to the EITC, while somewhat smaller portions are due to expansion of the Medicaid program and to welfare reforms associated with waivers (see also Meyer and Rosenbaum, 1999b; and Ellwood, 1999). Although we know of no attempt to directly estimate the impact of changes in the EITC on welfare declines, these results suggest a substantial effect.

If welfare reform is responsible for some of the decline in caseloads, it is natural to judge the reforms, in part, by how those leaving welfare are faring. Since the goal of many policy changes was to replace welfare with gainful employment, one might hope for an increased movement from welfare to employment. On the other hand, many administrative changes may have had the effect of discouraging individuals from receiving public assistance even when their employment opportunities are very limited. There are a number of recent attempts to determine the employment experiences of those leaving welfare in the 1990s (Brauner and Loprest, 1999; Parrott, 1998; Loprest, 1999; Cancian et al., 1999). We know that a large share of welfare leavers are employed, although their average wages are low. Nonetheless, their labor market experiences are highly heterogeneous, with some better off than they were while receiving welfare and others appreciably worse off. As caseloads decline, it is clear that many of those leaving welfare include long-term recipients and others with substantial barriers to obtaining employment (Kalil et al., 1998), and that wages in the jobs available to them will be low (Lawson and King, 1997).

The results of these studies, however, provide little information on how former recipients

have been influenced by recent reforms. Many of these analyses focus on whether welfare leavers under the reformed policies are better off after leaving welfare than before. Given that those who leave welfare are a selected group, consisting of those whose opportunities have improved the most, this kind of comparison tells us little about program impact. It is necessary to examine the experiences of those leaving welfare under different policy regimes to infer the impact of policy changes on welfare leavers' experiences.

The current study examines the dynamic structure of AFDC/TANF participation and the labor market involvement of participants starting in the early 1990s through 1997 in each of the core counties containing Atlanta, Baltimore, Fort Lauderdale, Houston and Kansas City. All these cities display a recent decline in welfare caseloads, consistent with the national trend. By focusing on five major cities, our analyses allow us to begin to examine the extent to which differences in local administrative directives and local labor markets contribute to observed trends. Comparison across cities will enhance our understanding of the mechanisms inducing change and the interaction between local labor market conditions and government policy. Although our focus on the 1990s is driven by data availability, given the major changes occurring in welfare programs over this time, it is this most recent period that is most directly relevant.

Whereas most of the studies dealing with the welfare caseload use specifications that attempt to predict caseload size, we will examine the determinants of rates of flow into and out of welfare. Klerman and Haider (2000) argue that it is these rates that will be most directly influenced by economic and policy factors, and their empirical tests, based on analyses of the welfare caseload in California counties, suggest that using caseload produces substantial bias.

Our work builds on that of Lane and Stevens (1995) and Lane, Shi and Stevens (1997),

who have used administrative data on employment and AFDC participation in Maryland to examine the dynamics of welfare and work. The research reported here is unique in that it focuses on how dynamics have shifted over this recent period of extraordinary change in five geographically distinct metropolitan areas.

We first identify the relative importance of changes in inflows and outflows in explaining the caseload declines in each of our sites. We then consider the role of economic conditions and policy in determining these flows. We also examine the kinds of employment experiences of former welfare recipients during this period, allowing us to examine how economic conditions and policy contribute to the employment of recipients.

In the following section, we describe our approach and data sources, detailing state and local program changes occurring in the 1990s over the period of our study. The next two sections describe analytical results and the final section concludes with an emphasis on policy implications.

II. Approach and Data Sources

Our data pertain to AFDC/TANF cases in the central county of each of five metropolitan areas: Fulton County, GA (Atlanta); Baltimore City, MD (county equivalent unit); Broward County, FL (Fort Lauderdale); Harris County, TX (Houston); and Jackson County, MO (Kansas City). In each case, the county contains all or almost all of the central city population. With the exception of Baltimore, where the county-level unit is the city, the county also contains substantial population outside the central city, although a large share of the county's welfare recipients are in the central city. For four of our five sites, the metropolitan area includes more

than one county. In these sites, the proportion of the metropolitan population included in the central county varies from less than one fifth (for Fulton County, in the Atlanta Metropolitan Area) to nearly three-quarters (for Harris County, in the Houston Metropolitan Area).¹ Although the convention of referencing each site by the name of its central city is followed here, all information on welfare participation applies to the central county.

The analysis here is limited to families headed by females in the age range 18-64, who received AFDC-Basic or TANF cash payments.² The unit of analysis can be viewed as the family, or as the mother who is the payee. Those who received only noncash benefits, even if they were listed as participants in AFDC or TANF programs, are omitted. For the purposes of examining trends, monthly payments are aggregated to quarterly totals.

Because administrative practices regarding the archiving of data differ across states, the period of coverage for our sites varies somewhat. Data for Baltimore and Kansas City are available beginning in 1990, for Atlanta beginning in 1992, and for Fort Lauderdale and Houston beginning in 1993. In all sites, welfare measures extend through 1997.³

In order to examine the employment experiences of aid recipients, we have obtained quarterly total earnings for all individuals in jobs covered by unemployment insurance in the state,

¹In Fort Lauderdale, the central county (Broward) corresponds to the metropolitan area.

²The selection criteria omit all men as well as women who received aid as part of the AFDC-Unemployed Parent program. Although the experiences of such individuals may be of substantial interest, they make up a small share of the welfare population. Since welfare receipt and employment patterns are likely to differ for these individuals, separate analyses examining their experiences are preferred.

³Baltimore data extend to the third quarter of 1997. Data for other sites extend to the fourth quarter.

matching these to the records of AFDC/TANF recipients. (For the analysis of Kansas City, both Missouri and Kansas earnings data were used.) The vast majority of employment in each state is covered by these data, although illegal employment, self-employment and several classes of nonprofit and federal employment are omitted. The files also fail to identify employment for individuals who left the state.

Several measures are used to capture economic conditions at each site. The unemployment rate and job growth in the metropolitan area are used because they reflect the local labor market but are unlikely to be influenced by welfare policy. County level unemployment and employment growth are also considered. Instrumental variables methods of estimation based on shift-share analysis are employed to remove possible effects of policy on local employment.

The measure of welfare receipt uses the quarter as the unit of analysis, so that those receiving any payments in the quarter are viewed as recipients. Given monthly turnover, the caseload measured this way for any given quarter will be slightly greater than the highest monthly caseload. An individual is defined as an exit from welfare if she received welfare during a quarter but not during the following quarter. The exit rate is calculated as the number of exits divided by the first quarter's caseload. Similarly, an individual is defined as entering welfare if she was receiving welfare in one quarter but not in the preceding one.

The rate of employment for welfare exits is the proportion receiving earnings in a job covered by unemployment insurance in a given quarter among those who left welfare in the prior quarter. This measure includes both individuals who obtained jobs prior to leaving welfare and individuals who left welfare and found a job some time before the end of the following quarter.

Prior to the 1996 federal reform, major welfare reform at the local or state level occurred

as states received federal waivers permitting substantial deviations from AFDC rules. Among waiver provisions were the strengthening of work requirements, in some cases applied with special force to long-term recipients; restrictions on the length of time payments could be received; and requirements that recipients enter into agreements to achieve self-sufficiency. Often recipients were provided with new services to aid them in obtaining employment, and in some cases those leaving the welfare rolls were eligible to retain certain benefits that would have been lost under earlier rules, such as medical care and childcare assistance. Major changes in the administrative structures occurred as well.

The primary measures of policy used in existing studies of the welfare caseload are the date of approval of federal waivers and the date of TANF implementation. The consensus is that waivers specifying work requirements were the most likely to influence movements into and out of welfare. Four of our sites are in states with such waivers approved over the data period, so measures that identify the quarter in which each was granted are included. However, waiver approval dates may not fully capture actual policy changes at the local level. In order to better measure the actual timing of changes that influenced welfare policy, statutory or administrative changes are identified that may have influenced the welfare program in each site, based on our observation of local and state policy directives and interviews with local administrators. In some cases, these dates indicate passage of state legislation, but date of implementation is used when it is distinct and can be identified.

Table 1 provides a listing of dates for policy changes at each site and indicates how these were coded in our analysis. Dates in which waivers that allowed work requirements were granted were coded in a dummy variable taking on a value of one in any quarter at or after the specified

date (these dates correspond to those in Ziliak et al., 1998). A similar variable identifies the date that TANF was implemented in the state. Major administrative and legislative changes that could have affected welfare recipients were combined to form a simple composite for each site indicating the number of changes that had occurred at the site up to that point. While the various reforms may not have influenced outcomes to the same degree, in the absence of any good information about their relative importance, the scaling treats them as equal. Events were dropped from a composite when statistical tests showed that the simple sum combined measures with different effects. Finally, one event--the dropping from the welfare rolls in Atlanta of all recipients who had not completed self-sufficiency pacts--was coded differently. Since the primary impact of this action was to elevate the exit rate in a single quarter, a dummy variable was coded as one in that quarter only.

Our interest is in identifying the impacts of program policy broadly defined, whether associated with federal waivers, TANF implementation, state legislation, or administrative reform. Given our data, we do not believe it is possible to identify the impacts of particular policy changes. Many of the dates in our measures of policy specify points in time when multiple reforms occurred, for example, when a state's general welfare reform bill was implemented. It should also be recognized that specific dates identified in our measures are often milestones in a reform process in which changes are largely continuous. In many cases, when programs were initiated they served only a small number of clients, expanding over a period of as much as two years. Nonetheless, we suspect that the dates may be associated with activities that influence observed programs.

Despite other changes, differences between the sites in payment levels that existed under

AFDC remained essentially unchanged during the period of the study. At the conclusion of our study period, the maximum benefit levels for a mother and two children were as follows: Atlanta, \$280; Baltimore, \$388; Fort Lauderdale, \$303; Houston, \$188; and Kansas City, \$292. These levels have remained essentially unchanged in nominal terms since at least 1990.

III. The Exit and Entry Components of the Caseload Decline

Trends in Caseload

Figure 1A presents the welfare caseload over the 1990s for each area. In each case, the size of the caseload is at a peak in the early to mid-1990s, followed by a decline to the current level. However, there are substantial differences, as Table 2 shows. Atlanta and Kansas City experienced peak caseloads slightly later than the other areas. The largest decline is in Fort Lauderdale, of nearly 66 percent, while that in Houston is 57 percent. Declines for Baltimore and Atlanta are about one third, whereas the decline in Kansas City is about one quarter.

Figure 1B shows that unemployment rates for the metropolitan areas of each of our sites follow a pattern similar to that of the caseloads. After a period in the early 1990s of variable and increasing unemployment, all areas experienced a strengthening labor market through the end of the study period. There are substantial differences, however, with Atlanta and Kansas City showing appreciably lower unemployment than the other areas, while in Baltimore the recovery appears to be less steady.

Welfare Entry and Exit Rates

Figure 2 shows the exit rate from welfare as well as the number of cases entering welfare.

These two determine the change in the size of the caseload. Substantial differences exist across regions. The lowest exit rates are in Atlanta and Baltimore, which average around 8 percent. In contrast, the average exit rate in Kansas City is over 11 percent, while Houston shows an average exit rate of over 15 percent, with the exit rate close to 20 percent in the most recent two years. Fort Lauderdale displays rates of nearly 20 percent until 1996, increasing to over 40 percent by the end of 1997.

Some of these patterns are clearly tied to administrative decisions. In Atlanta during the second quarter of 1997, the exit rate increases to 17 percent from 8 percent in the previous quarter, and then declines to 11 percent in the following quarter. This reflects the fact that all welfare recipients who had not signed personal responsibility agreements were dropped from the rolls that quarter. The dramatic increase in the exit rate in Fort Lauderdale is probably the result of Florida's welfare reform legislation (WAGES), which became effective statewide in October 1996, specifying a maximum limit of two years of welfare receipt in any five-year period.

To what degree have entry and exit contributed to observed declines in caseloads? Figure 2 suggests that changes in both exit and entry rates have played a role. Both measures show the clearest trend for Houston and Fort Lauderdale, which are the sites with the greatest caseload declines. In the other sites there are similar--if weaker--trends.

In order to examine the relative importance of these flows, for each quarter we projected what the caseload would be if the rates of entry and exit observed at that time remained unchanged.⁴ The point in time for which these rates produced the largest projected caseload was

⁴In this and later analyses, entry rate is calculated as the number of individuals entering welfare divided by the county's total population.

then selected. These maximum projected caseloads are listed in column 1 of Table 3. For all sites, this maximum is somewhat larger than the actual observed caseload, since average flows at this point imply continued caseload growth in all sites. The projected final caseload was also calculated under the assumption that the rate of welfare entry remained at the current level but that exit rates followed their observed path (column 2). This is a measure of how much increases in exit rates alone contribute to the caseload decline. A similar projection was also produced holding constant the exit rate while allowing the entry rate to follow its observed path (column 3).⁵

These projected caseloads may be compared with the observed final caseload (column 4), which reflects the combined impacts of changes in both rates of exit and entry. The impact of each measure separately does not quite add to the total (especially for large caseload declines), but the projections do give an indication of the relative importance of variation in these flows. The final three columns in Table 3 present the projected and observed caseload declines in percentage terms.

The importance of changes in rates of exit and entry are quite different across the five sites. In Atlanta, changes in both exit rates and entry rates induce declines in the caseload, with exit rates somewhat more important. In Baltimore and Kansas City, exit rates are relatively more important still. In both Fort Lauderdale and Houston, increases in exit rates and declines in entry rates have large impacts on the caseload, although the decline in the exit rate plays a less important role for Houston.

⁵Gittleman (2000) uses a similar approach to examine the role of changes in transition rates in explaining the caseload decline at the national level.

Overall, we can conclude that increases in exit rates have caused substantial caseload declines at all of our sites, but that the role of declines in entry rates is more variable. This may reflect the fact that current welfare recipients are a focus of much of the national discussion of welfare policies, and so programs focused on them may be relevant at almost all sites. In contrast, efforts to discourage new recipients, although frequently cited, may be less consistent across sites. Still, at each site, changes in rates of both exit and entry played a role in the declining caseload and at least a third of the observed decline would have occurred if one of the two flows had not changed.⁶

Explaining Welfare Exit Rates

In order to examine the determinants of exit rates, we fitted a variety of models based on a pooled time series for the five sites. The dependent variable in each case is the natural logarithm of the proportion of individuals exiting welfare following any given quarter, so coefficients of dependent variables may be read as identifying proportional impacts. In all specifications, dummies for sites are included. Many models also include site-specific time trends to control for secular changes in demographic or other factors. Seasonal dummies are tested in each case, as are differences across sites in seasonal effects.

Unemployment and welfare exit rates display similar patterns over time, suggesting that economic growth may play an important role in speeding exits from welfare. Equation 1, reported in Table 4, confirms this intuition. In a simple regression equation in which

⁶At the national level, Gittleman (2000) also found that changes in transition rates both onto and off of welfare played a role in the downturn in the welfare caseload beginning in the early 1990s.

unemployment predicts the exit rate, with differences between sites controlled with simple dummy variables, each percentage point decline in the unemployment rate increases the natural logarithm of the leaving rate by 0.17. However, the high error autocorrelation in this specification implies that the measures of statistical significance cannot be taken at face value.

Controls for policy variables show that these apparent effects are largely spurious. Equation 2 in Table 4 includes our measures controlling welfare policy change at each location, reducing the impact of unemployment by about two-thirds. It is clear that these measures of policy have substantially greater impact than unemployment.

Both equations 1 and 2 in Table 4 exclude any trend effects, implicitly assuming that changes over time can be traced to measured policy or labor market conditions. Equation 3 allows each site to have its own linear trend, accounting for any exogenous continuous changes that affect exit rates. In this specification, the total impact of unemployment is further reduced by two-thirds, and the coefficient is no longer statistically significant. In contrast, the policy variables remain significant.

It is natural to consider whether exits from welfare differ by quarter. Given that the structure of employment differs dramatically across our sites, quarter effects could well be site-specific. In fact, inspection of Figure 2 suggests that exits do vary by quarter in several of the sites. When simple dummies for quarter are entered, they do not approach statistical significance (either jointly or separately), but when quarter effects are permitted to vary across sites, 3 of the 15 coefficients are statistically significant, and the F statistic for the 15 site-specific quarter variables, considered together, is easily statistically significant. Equation 4 in Table 4 shows how results are altered by inclusion of these 15 measures. Here the coefficient of unemployment is -

0.06 and is statistically significant. Coefficients on the policy measures are not reduced substantially.

A variety of specifications were considered to see if any alternative could better capture the influence of economic conditions. One concern is that the impacts of the economy could differ across sites. When the single measure of unemployment was replaced with five site-unemployment interaction terms, the F-test on the additional degrees of freedom was not statistically significant.

Table 5 presents several specifications using alternative measures of economic conditions but with impact constrained to be the same across sites. Equation 1 reproduces the result from the last equation in the previous table, showing a statistically significant impact of unemployment. There is no evidence that considering more unemployment lags (equations 2 and 3) or combining the previous year's unemployment rate into a single measure (equation 4) better captures the effect of the economy. We also tested specifications that considered up to eight quarterly unemployment lags, as well as average annual unemployment for two prior years. None of the alternative specifications suggests a more important role of unemployment than that indicated by the single unemployment measure entered in equation 1. Interactions between unemployment and time and between unemployment and various policy measures were considered. None was statistically significant. The last two columns list an estimation equation that replaces unemployment with metropolitan employment growth, measured as a quarterly percentage. The two specifications are typical of the many that were tested in that they fail to suggest any impact of employment growth.

Measures of labor market conditions based on the metropolitan area have the advantage

that welfare policies are unlikely to affect them, since, in each of the sites, the metropolitan area contains populations outside the county with relatively low welfare rates.⁷ Since the metropolitan area is defined to identify an integrated labor market, measures at this level should capture opportunities for residents in the central county. However, if, as some have suggested, inner city residents have limited mobility (Kain, 1992), metropolitan measures may not represent welfare recipients' employment prospects. In order to examine whether measures at the level of the county perform better, the lower part of Table 5 presents data for measures of economic condition in the county. Results for unemployment in the county are very similar to those obtained for metropolitan unemployment. Current unemployment does appear related to exit rates, and considering lagged effects does not suggest stronger impacts. Employment growth in the county, like employment growth for the metropolitan area, has no observable relationship to the exit rates.

A potential shortcoming of county-level measures is that they may be influenced by the welfare exit rate. If welfare recipients were to leave welfare in greater numbers during a particular period for reasons unrelated to economic conditions--perhaps due to welfare reform--their numbers would tend to induce unemployment. The estimated negative impact of unemployment on welfare would then be biased toward zero. In order to remove such bias, predicted employment growth at the level of the county was constructed based on the distribution of employment across two-digit industries in the county, combined with the national rate of

⁷The exception is that Broward County is both the metropolitan area and the central county. However, in this case, the welfare population is heavily concentrated in the city of Fort Lauderdale, which contains a relatively small portion of the county population, so employment statistics for the county are unlikely to be influenced by welfare policies.

employment growth in each of the industries. Such “shift-share” growth rates indicate the growth that would occur in the county if each industry grew at the national average, and so, in large part, identify the impact of shifts in national demand and industry-specific technological growth. It should therefore be largely free from the impacts of local area policies. Predicted growth in prior quarters was found to have a substantial correlation with the unemployment rate, suggesting that it could serve as an appropriate instrument. However, once site-specific time trends were introduced, the shift-share measures displayed very little independent association with unemployment. In none of the instrumental variable specifications considered was the coefficient of unemployment or its lag estimated with any precision, and estimated effects were never statistically significant.

Given that the policy environment was changing dramatically over the 1990s, it is natural to ask whether the impact of economic conditions has changed. The Council of Economic Advisors (1999) report found that economic conditions had a substantial and similar impact in the 1990s as in earlier periods, while Ziliak et al. (1998) and Figlio and Ziliak (1999) found that the impact of economic factors was greater in the presence of the welfare reforms that occurred in the 1990s. In the analyses here, interactions between the metropolitan unemployment rate and time never approached statistical significance in their effects on exit rates. Similarly, interactions between the unemployment rate and various measures of policy failed to yield significant effects.

In the literature that focuses on predicting caseloads, the most common measures of welfare policy are variables coded to the dates when federal waivers were granted to states and when TANF was implemented in the state. Table 6, equation 1, shows that measures based on waivers and TANF implementation have coefficients that are both substantial and statistically

significant. However, these measures are clearly less important than the six welfare policy measures we have constructed, which apply for each of the sites. When both the waiver measures and other policy measures are entered together (equation 2), neither the waiver nor TANF measure is statistically significant. Finally, equation 3 in Table 6 replaces the aggregate measures with 26 dummy variables, each capturing an observed policy event for a particular site, coded one for the quarter of the event and each quarter after, and zero for prior quarters. An F-test indicates that the explained variance associated with these additional degrees of freedom is not statistically significant. Comparing across the three variations of the equations, we see that the estimated impact of unemployment is not influenced by differences in the policy controls.

A specification with a lagged dependent variable was also considered, but the coefficient on the lag was not statistically significant and other coefficients were not altered substantially.

Our conclusion is that the impact of economic factors in inducing the observed increase in welfare exit rates is modest at best. In contrast, our estimates of policy impact are substantial. Nonetheless, we are cautious about claiming either that our policy measures fully capture the impact of policy changes or that they capture only these impacts. In part, observed coefficients may merely indicate that administrative changes are occurring in the latter portion of our period, at a time when exit rates are increasing. Still, our findings do suggest that changes outside the labor market are critical in explaining increases in exit rates, and welfare policy and related administrative changes may have played an important role.

Explaining Welfare Entry Rates

We saw earlier that reductions in welfare caseloads are due both to declines in the rate at

which individuals enter welfare and to increases in the exit rate. Regression equations are fitted predicting the natural logarithm of the number of individuals beginning to receive welfare in a given quarter divided by the county's total population.⁸ The basic structure of these equations parallels that for the exit rate.

Equation 1 in Table 7 shows that, in the absence of controls for welfare policy or time trends, high unemployment in the metropolitan area does appear to increase the number of those entering welfare. Equations 2 and 3 show that this apparent impact is spurious. The estimated impact of unemployment is reduced dramatically when measures of welfare policy are controlled. Specification tests indicated that seasonal impacts differed across sites, and so equation 3 controls for site-specific quarter effects and time trends. We see that these controls cause the impact of unemployment to be negative, although it is not statistically significant.

The residual in equation 3 displays a strong negative autocorrelation, which suggests that reported statistical tests may be biased. It turns out that this negative autocorrelation is related to the six policy measures. Equation 4 replaces these measures with the conventional measures of policy, identifying federal waivers and TANF implementation, producing a specification with a much smaller negative residual autocorrelation. Equation 5 enters a lagged dependent variable as a way to account for the negative autocorrelation, retaining our basic policy measures. While each of equations 3-5 has obvious shortcomings, in none of them is there any suggestion that an increase in the unemployment rate spurs entry into welfare.

⁸While it may appear preferable to express this rate as a proportion of the population at risk (young women) or to use population as an independent variable predicting movement, in practice it makes little difference. Changes in population or demographic group size will be small over the period considered and are likely to be accounted for by the site-specific time trends.

Various lag structures for unemployment and employment growth were also considered, both in specifications with a lagged dependent variable and without. In several cases, lagged measures of unemployment were statistically significant, but successive lags entering into an equation generally had opposite signs. Overall, the implied impact of unemployment was small and negative, consistent with the estimated coefficients in equations 3-5 in Table 7. In no case did any specification using metropolitan unemployment or employment growth imply that local economic conditions had the expected overall positive impact on welfare entries. Results were no different for measures of unemployment or employment growth at the county level, and attempts to use shift-share measures of employment growth as instruments were not successful.

The composite measures of local welfare policy all have the expected negative impacts on the rate of entry into welfare. Coefficients for at least four of the six site-specific policy measures are statistically significant in all specifications. These results suggest that state policies have a substantial influence on the number of arrivals. Of course, our earlier warnings about the validity of our policy measures apply with particular force in interpreting these estimates. Many of the policy changes are explicitly focused on current welfare recipients. For example, the dummy for Atlanta identifies the quarter in which all welfare recipients who had not signed a self-sufficiency pact were removed from the rolls, which would not directly affect exit rates. The substantial negative coefficient in this specification must be due to indirect effects or to other policy changes occurring at the same time. In general, treatment of recipients should influence those considering whether to apply for aid, and we suspect that policy actions--whether or not captured by our measures--played a substantial role in observed declines in entry rate.

Comparisons with Prior Work on the Determinants of the Welfare Caseload

The conclusions here would appear to differ from those of prior work in that we find policy measures to have a substantial and robust impact on welfare exits and entry, whereas the effects of economic factors are small or, in the case of the welfare entry rate, perverse. The greater impact of policy in our specifications is partly due to use of more detailed measures of policy in our specification. In predicting exit rates, specifications that entered the conventional measures, identifying federal waivers and TANF implementation, displayed statistically significant impacts, but the six site-specific composites constructed for the work here increased explanatory power substantially (Table 6). Similarly, specifications predicting entry rate using the conventional measures explained appreciably less variation than did the composites (Table 7). While the measures employed in the analysis are rough, they are more detailed than the policy measures in any prior work.

The measures of economic conditions used in these analyses are less than ideal, and it is tempting to attribute the small estimated impacts to this. In a study that examined exit from welfare for individuals in California 1987-1992, Hoynes (1996) found that county employment growth and industry-specific income were better predictors of leaving welfare than the unemployment rate. In analyses of the welfare caseload, Blank (1997), Bartik and Eberts (1999) and Wallace and Blank (1999) showed that measures based on wages for low-skilled workers may better capture economic opportunities than does the unemployment rate. Despite these results, most analyses suggest that the unemployment rate does capture much that is relevant about the local labor market for welfare recipients. Many of the studies that have examined the caseload decline use the unemployment rate as their only or primary measure of economic conditions

(Council of Economic Advisors, 1997, 1999; Ziliak et al., 1998; Moffit, 1999; Schoeni and Blank, 2000).

In fact, our findings are not seriously discrepant from those of other studies. Consider the Council of Economic Advisors (1999) estimate of the impact of the unemployment rate, which indicates that an increase of one percentage point in unemployment induces a 0.3 percent decline in the current caseload, a 1.2 percent increase in the following year, and a 3.9 percent increase two years ahead, implying a total impact of 5.4 percent.⁹ Compare this with our estimates of the impact of unemployment reported in equation 4 of Table 4. A one-percentage-point increase in unemployment causes exits to decline by 6 percent. Given a departure rate of 10 percent (close to the mean for our sites), this means that, in each quarter, a one-percentage-point increment in unemployment causes the caseload to increase by 0.6 percent. If unemployment remains elevated for a full year, the caseload increases by approximately 2 percent. Based on the lag structure implicit in this calculation, if the increase in the unemployment rate is permanent, the caseload ultimately increases by 6.4 percent,¹⁰ somewhat more than that implied by the three lags of unemployment in the caseload analysis but well within the sampling error of the estimates. In short, our estimates of the impact of unemployment on exit rate alone are sufficient to produce the relationship between unemployment and the caseload found in other studies.

Our finding that arrivals onto welfare are less responsive to economic conditions than are exits, while difficult to explain in terms of theory, corresponds with findings of the few studies

⁹These are based on coefficients estimated in model 2 in Table 2 of the Council of Economic Advisors (1999) report.

¹⁰If the arrival and departure rates remain constant, the caseload approaches the stable level rP/d , where r is the arrival rate, P is the population, and d is the exit rate.

that have examined this. Gittleman (2000) finds no evidence that economic conditions play any role in predicting transitions to welfare, whereas exits display a modest response. Blank and Ruggles (1994) report that economic conditions have no effect on welfare recidivism.

While they are consistent with previous work, estimates of the impact of economic factors reported here are not very precise. This reflects the fact that the data cover a period in which both economic growth and welfare reforms display strong secular trends. It is notable, however, that the measures of policy change in these analyses have substantial and robust impacts in predicting both exit and entry rates. While it is not possible to assure that policy changes were not timed to correspond with strong economic growth, it seems unlikely such reverse causation would drive all our results. We suggest that a principal lesson of these analyses is that even rough measures like those used here may reveal the impact of policy changes in local environments. Much of the decline in caseloads nationally may well be due to administrative reforms that have not been coded in any of the caseload work focusing on the state level.

IV. Employment Rates for Welfare Leavers

While the reduction in the caseload is perhaps the primary concern of welfare reform, in most states this is coupled with an emphasis on moving recipients into self-supporting employment. Although the success of the reforms hinges, in part, on their ability to assure that welfare leavers obtain employment, no studies to date provide any indication of whether welfare reform has in fact increased the employment levels for welfare leavers. While it is clear that current welfare recipients are working at higher rates than in the past (often a simple result of work requirements), none of the studies of those who leave welfare provides any comparison

between current leavers and those who left under previous policy regimes.

Welfare-leaver employment rates in the quarter following exit are presented in Figure 3. The proportion is increasing in all sites (note the trend line), supporting the view that welfare reform has been successful. Still, there are substantial differences across sites. In the final study years, the employment rate exceeds 60 percent in Kansas City, whereas in Baltimore the final level is around 55 percent. Fort Lauderdale has the lowest initial employment rate, in the range of 30 percent, but it increases to over 50 percent by the final year. The proportion of welfare leavers with jobs in Houston oscillates in the 45-55 percent range and increases relatively little over time, whereas that in Atlanta increases to over 60 percent until a major decline occurs in the last year.

Table 8 reports regression equations predicting the employment rate of welfare leavers, following the same basic structure as those for exit and entry rates. When only site dummies are controlled, there is an appreciable impact of the metropolitan unemployment rate and its lagged values. The estimated impact changes little when policy composites for each site and site-specific time trends are included (equations 2 and 3). In contrast to analyses focusing on exit and entry rates, it is clear that unemployment has a substantial impact on the employment rate for welfare leavers, with the current value and the twice-lagged value being statistically significant. Summing the coefficients for the three unemployment measures in equation 3 to determine the impact of a long-term change in unemployment indicates that each percentage-point decline in unemployment induces a 9.2 percent increase in the employment rate for welfare leavers.

Equation 4 includes a lag-dependent variable. Once the lag is entered, site-specific quarter effects are statistically significant, and these are controlled in equation 5. Although coefficient estimates for unemployment and its lags clearly differ in the lag-dependent variable specifications,

the total impact of unemployment is quite similar. Equation 4 implies that a 1 percent increase in the unemployment rate ultimately reduces employment by 9.3 percent, while equation 5 implies an estimate of 8.4 percent.

Table 9 tests a variety of alternative specifications for measures of local economic conditions. The basic inference that unemployment has an appreciable influence is robust to all the alternatives considered. Entering simple current unemployment implies that a one-percentage-point fall in unemployment increases welfare leavers' employment by 7.9 percent, while specifications that allow for more lags imply increases varying between 8.2 and 8.4 percent. The lower panel of Table 9 shows that when unemployment is measured at the county level, the estimated impact is very similar. In the leftmost columns of the table, coefficients for employment growth are reported. Employment growth appears unrelated to the rate of employment for welfare leavers.

As an indicator of the importance of economic conditions, the coefficients in our preferred specification (Table 8, equation 5) were used to graph the change in the leavers' employment rate at each site that can be attributed to variation in the unemployment rate. The dark dotted lines in Figure 3 indicate the predicted employment rate of welfare leavers when all factors except unemployment are held constant. We have normalized the predicted value so that it corresponds to the observed value at the beginning of the data series. In each site, the predicted employment rate increases beginning in the early to mid-1990s.

The comparison between observed and predicted employment rates for welfare leavers suggests that leavers' employment in Fort Lauderdale is growing substantially faster than would be predicted on the basis of improved economic conditions, whereas growth for Houston lags the

prediction. In each of the other sites, it is clear that a large portion of observed gains in leavers' employment are attributed to economic conditions.

In contrast to analyses predicting exit from and entry to welfare, Table 8 shows that welfare policy composites have small and inconsistent impacts on welfare leavers' employment. The only measure that has a large impact is the imposition of the rule in Atlanta under which recipients who failed to enter into self-sufficiency pacts were dropped from welfare. As might be expected, this policy removed from the rolls individuals who were less likely to find employment than those who left welfare under less coercive circumstances.

The issue of whether those policies that move people off of welfare facilitate employment can be addressed more directly. In general, insofar as harsh policies forced individuals from the rolls, we would expect that high levels of exit would be associated with low employment rates for those leaving. Conversely, if recipients were drawn out of welfare because new policies provided them with previously unavailable employment opportunities, high levels of exit should be associated with greater employment for leavers. When the exit rate is included as a regressor predicting employment of leavers, its coefficient is not statistically significant. Since policies may well vary across sites, Table 10 provides estimates of effects of exit rate that are permitted to vary across sites. The first specification omits welfare policy composites, while the second includes them. The coefficient for Fort Lauderdale is positive and statistically significant in both, indicating that in those quarters with high exit rates, individuals are more likely to obtain employment. A similar positive impact is found for Kansas City, although it is only statistically significant in the specification where policy measures are controlled. As may be expected, the coefficient is negative for Atlanta when policy measures are not controlled, reflecting the impact

of the pact requirement. The ability to estimate site-specific effects is quite limited.

The importance of economic conditions in predicting the employment rate for welfare leavers suggests that if we measure the success of welfare reform by whether it ensures jobs for those who exit welfare, success depends critically on the economy. Were it not for the dramatic declines in unemployment observed at all sites, improvements in leavers' employment rates would be small in three of our sites and negative for Houston. The exception is that, in Fort Lauderdale, the role of economic conditions has been modest, and very fast growth in the employment rate of welfare leavers is not tied to the economy. However, the employment rate in Fort Lauderdale was very low in the early 1990s, suggesting that circumstances at this site may be different from the others.

V. Conclusion

Our analysis suggests that welfare policy is more important than economic factors in explaining the dramatic declines in the welfare caseloads that have taken place since the early to mid-1990s. While this conclusion is at variance with that of the recent literature focusing on caseload declines, we believe our results are a more reliable indicator of the dynamics of welfare during recent reforms. Most of the literature examining caseload changes uses data for states over a 20-year period, during most of which AFDC specified a set of eligibility rules that imposed a common program structure across states. These studies' attempts to capture policy changes during the 1990s rely on the timing of federal waivers and TANF implementation, measures that are surely rough proxies for state policy changes.

We find that more detailed measures designed to capture state legislative and

administrative changes have substantial effects on caseload flows. Nonetheless, it must be recognized that unmeasured economic or social changes correlated with our policy measures could be of importance, causing estimates of policy impact to be spurious. Conversely, major administrative changes could easily exert impacts through various lagged processes that may not be captured by our measures. Overall, we suspect that welfare policy, broadly construed, played a more important role in explaining caseload declines than is implied by the estimated coefficients on our policy variables.

Although our analyses focus on only five areas, all of these areas display declines in welfare caseloads that are typical for the nation. They also display a variety of reform patterns, including various levels of government activity. Although it seems likely that results would apply for most urban areas, such generalization cannot be based on statistical inference.

Our analysis of employment rates for welfare leavers suggests that the existing studies of the welfare caseload have misconstrued the critical issues in judging welfare reform. These studies implicitly define the success of welfare reforms by the extent to which they have induced declines in the number of recipients. By this measure, since our results imply that policy changes alone have been sufficient to reduce the welfare rolls, welfare reform would be rated a success. Of course, this ignores the issue of what happens to those who leave welfare.

Our data allow us to respond to this concern. We show that, in four of the five sites of our study, those leaving welfare are obtaining jobs at higher rates than previously, implying that the reforms show some level of success. However, in contrast to measures of success based on caseload declines, here the strong economy plays a critical role. In the absence of observed declines in unemployment rates, an appreciably smaller proportion of former welfare recipients

would be observed working, and in three of our five sites there would have been little improvement over time. For Houston, there would have been a decline whereas in Fort Lauderdale the increase in employment (from its very low level) would have occurred even if unemployment had not declined.

Our conclusion is that an economic downturn is not likely to cause the welfare caseload to increase dramatically, so states need not fear that their TANF budgets will bloat. On the other hand, insofar as reforms are judged by the employment of former welfare recipients, we would expect that a serious economic reversal would raise questions about whether welfare reform was living up to its promise. To date, although reforms have been effective in cutting the caseload, it is the strong economy that has provided improved employment opportunities for those who have left welfare.

REFERENCE LIST

- Bane, Mary Jo and Ellwood, David T. *Welfare Realities: From rhetoric to reform*. Cambridge, Mass.: Harvard University Press, 1994.
- Bartik, Timothy J. and Eberts, Randall W. "Examining the Effect of Industry Trends and Structure on Welfare Caseloads," in Sheldon H. Danziger, ed., *Economic conditions and welfare reform*. Kalamazoo, Mich.: W.E. Upjohn Institute, 1999, pp. 119-57.
- Bishop, John H. "Is Welfare Reform Succeeding?" Working Paper no. 98-15, Center for Advanced Human Resource Studies, Cornell University, 1998.
- Black, Dan; McKinnish, Terra and Sanders, Seth. "How the Availability of High-Wage Jobs for Low-Skilled Men Affects AFDC Expenditures: Evidence from Shocks to Coal and Steel Industries." Unpublished paper, August, 1999.
- Blank, Rebecca M. "Analyzing the Length of Welfare Spells." *Journal of Public Economics*, August 1989, 39(3), pp. 245-73.
- Blank, Rebecca M. "What Causes Public Assistance Caseloads to Grow?" National Bureau of Economic Research Working Paper no. 6343, December, 1997.
- Blank, Rebecca M. and Ruggles, Patricia. "Short-Term Recidivism Among Public-Assistance Recipients." *American Economic Review*, May 1994 (Papers and Proceedings of the American Economic Association), 84(2), pp. 49-53.
- Brauner, Sarah and Loprest, Pamela. *Where are they now? What states' studies of people who left welfare tell us*. New Federalism: Issues and Options for States, no. A-32. Washington, D.C.: Urban Institute, 1998.
- Cancian, Maria; Haveman, Robert; Kaplan, Thomas; Meyer, Daniel and Wolfe, Barbara. "Work, Earnings, and Well-Being After Welfare: What Do We Know?," in Sheldon H. Danziger, ed., *Economic conditions and welfare reform*. Kalamazoo, Mich.: W.E. Upjohn Institute, 1999, pp. 161-86.
- Cancian, Mario; Haveman, Robert; Kaplan, Thomas and Wolfe, Barbara. "Post-Exit Earnings and Benefit Receipt among Those Who Left AFDC in Wisconsin." Special Report no. 75, Institute for Research on Poverty, 1999.
- Council of Economic Advisors. *Technical report: Explaining the decline in welfare receipt, 1993-1996*. Washington, D.C.: The White House, 1997.

Council of Economic Advisors. *Technical Report: The Effects of Welfare Policy and the Economic Expansion on Welfare Caseloads: An Update*. Washington, D.C.: The White House, 1999.

Ellwood, David T. "The Impact of the Earned Income Tax Credit and Social Policy Reforms on Work, Marriage and Living Arrangements." Unpublished paper, John F. Kennedy School, Harvard University, November, 1999.

Figlio, David N. and Ziliak, James P. "Welfare Reform, the Business Cycle, and the Decline in AFDC Caseloads," in Sheldon Danziger, ed., *Economic conditions and welfare reform*. Kalamazoo, Mich.: W.E. Upjohn Institute, 1999, pp. 17-48.

Gittleman, Maury. "Declining Caseloads: What Do the Dynamics of Welfare Participation Reveal?" Unpublished paper, Bureau of Labor Statistics, 2000.

Harris, Kathleen Mullan. "Work and Welfare among Single Mothers in Poverty." *American Journal of Sociology*, September 1993, 99(2), pp. 317-52.

Hotchkiss, Julie L.; King, Christopher T.; Mueser, Peter R.; Rokicki, Phillip S. and Stevens, David W. "Urban Welfare-to-Work Transitions in the 1990s: A First Look." Paper prepared for the U.S. Department of Labor, Employment and Training Administration, December, 1999.

Hoynes, Hilary Williamson. "Local Labor Markets and Welfare Spells: Do Demand Conditions Matter?" National Bureau of Economic Research Working Paper no. 5643, 1996.

Kain, John F. "The Spatial Mismatch Hypothesis: Three Decades Later." *Housing Policy Debate*, 1992, 3(2).

Kalil, Ariel; Corcoran, Mary E.; Danziger, Sandra K.; Tolman, Richard; Seefeldt, Kristin S.; Rosen, Daniel and Nam, Yunju. "Getting Jobs, Keeping Jobs, and Earning a Living Wage: Can Welfare Reform Work?" Institute for Research on Poverty Discussion Paper no. 1170-98, 1998.

Klerman, Jacob and Haider, Steven. "A Stock-Flow Analysis of the Welfare Caseload: Insights from California Economic Conditions." Unpublished paper, Rand, Santa Monica, Calif., 2000.

Lane, Julia; Shi, J. and Stevens, David. "New Uses of Administrative Data in Welfare-to-Work Policy Decisions: Employer Hiring (Incidence) and Retention (Persistence) of Former Welfare Recipients." Paper presented at the Joint Center for Poverty Conference, Northwestern University, June, 1997.

Lane, Julia and Stevens, David. "Family, Work and Welfare History: Work and Welfare Outcomes." *American Economic Review*, May 1995 (Papers and Proceedings of the American Economic Association), 85(2), pp. 266-70.

Lawson, Leslie O. and King, Christopher. "The Reality of Welfare-to-Work: Employment Opportunities for Women Affected by Welfare Time Limits in Texas." Paper prepared for the Urban Institute, 1997.

Loprest, Pamela. "Families Who Left Welfare: Who Are They and How Are They Doing?" Urban Institute Discussion Paper no. 99-2, 1999.

Martini, Alberto and Wiseman, Michael. *Explaining the recent decline in welfare caseloads: Is the Council of Economic Advisors right?* Washington, D.C.: Urban Institute, 1997.

Meyer, Bruce D. and Rosenbaum, Dan T. "Making Single Mothers Work: Recent Tax and Welfare Policy and Its Effects." National Bureau of Economic Research Working Paper no. 7491, 1999a.

Meyer, Bruce D. and Rosenbaum, Dan T. "Welfare, the Earned Income Tax Credit, and the Labor Supply of Single Mothers." National Bureau of Economic Research Working Paper no. 7363, 1999b.

Moffitt, Robert A. "Demographic Change and Public Assistance Expenditures." Unpublished paper presented at the Southern Economic Association Meetings, 1998.

Moffitt, Robert A. "The Effect of Pre-PRWORA Waivers on AFDC Caseloads and Female Earnings, Income, and Labor Force Behavior," in Sheldon H. Danziger, ed., *Economic conditions and welfare reform*. Kalamazoo, Mich.: W.E. Upjohn Institute, 1999, pp. 91-118.

Nathan, Richard P. and Gais, Thomas L. *Implementing the Personal Responsibility Act of 1996: A first look*. Albany, N.Y.: Nelson A. Rockefeller Institute of Government, State University of New York, 1999.

O'Neill, June A.; Bassi, Laurie J. and Wolf, Douglas A. "The Duration of Welfare Spells." *Review of Economics and Statistics*, May 1987, 69(2), pp. 241-48.

Parrott, Sharon. *Welfare recipients who find jobs: What do we know about their employment and earnings?* Washington, D.C.: Center on Budget and Policy Priorities, 1998.

Peskin, Janice. "Forecasting AFDC Caseloads, With an Emphasis on Economic Factors." Congressional Budget Office Memorandum, July, 1993.

Schoeni, Robert F. and Blank, Rebecca M. "What Has Welfare Reform Accomplished? Impacts On Welfare Participation, Employment, Income, Poverty and Family Structure." National Bureau of Economic Research Working Paper no. 7627, 2000.

Wallace, Geoffrey and Blank, Rebecca M. "What Goes Up Must Come Down? Explaining

Recent Changes in Public Assistance Caseloads,” in Sheldon H. Danziger, ed., *Economic conditions and welfare reform*. Kalamazoo, Mich.: W.E. Upjohn Institute, 1999, pp. 49-89. Paper prepared for conference “Welfare Reform and the Macroeconomy,” University of Chicago/Northwestern Joint Center for Poverty Research.

Ziliak, James P.; Figlio, David N.; Davis, Elizabeth E. and Connolly, Laura S. “Accounting for the Decline in AFDC Caseloads: Welfare Reform or the Economy.” Unpublished paper, Department of Economics, University of Oregon, 1998.

Table 1: Coding of Legislative and Administrative Changes Affecting Welfare Programs at Study Sites

Site	Year: Quarter	Event	Coding
Atlanta	1993:4	Federal waiver granted allowing work requirements.	<i>Waiver, Composite</i>
	1995:3	JOBS adopts “work first” approach.	<i>Composite^{b c}</i>
	1995:4	Federal waiver granted allowing additional work requirements.	<i>Composite^{b c}</i>
	1996:3	Additional work requirements implemented.	<i>Composite^c</i>
	1997:1	State welfare reform passed.	<i>Composite^{b c}</i>
	1997:3	Welfare-to-work efforts expanded.	<i>Composite</i>
	1997:3	Recipients dropped if they fail to sign personal responsibility pact.	<i>Dummy</i>
	1997:4	TANF implemented.	<i>TANF</i>
Baltimore	1995:4	Maryland welfare reform (FIP) implemented.	<i>Composite</i>
	1996:3	Federal waiver granted allowing work requirements.	<i>Waiver, Composite</i>
	1996:4	Welfare avoidance grants implemented.	<i>Composite</i>
	1996:4	TANF implemented.	<i>TANF</i>
Fort Lauderdale	1996:4	Florida welfare reform (WAGES) implemented.	<i>Composite</i>
	1996:4	TANF implemented.	<i>TANF</i>
	1997:4	Local workforce coalition established.	<i>Composite</i>
Houston	1995:3	JOBS program transferred to newly created Texas Workforce Commission.	<i>Composite</i>
	1995:4	JOBS adopts “work first” approach.	<i>Composite</i>
	1996:1	Federal waiver granted allowing work requirements, time limits.	<i>Waiver</i>

	1996:2	Childcare programs transferred to Texas Workforce Commission.	<i>Composite</i>
	1996:4	Sanctions implemented statewide.	<i>Composite</i>
	1996:4	TANF implemented.	<i>TANF</i>
	1997:1	State time limit implemented.	<i>Composite</i>
	1997:4	New rules require workforce orientation for applicants; Texas Works initiated statewide.	<i>Composite</i>
Kansas City	1994:4	Missouri welfare reform implemented.	<i>Composite</i>
	1995:2	Federal waiver granted allowing work requirements.	<i>Waiver, Composite</i>
	1996:4	New JOBS participation requirements implemented.	<i>Composite</i>
	1996:4	TANF implemented.	<i>TANF</i>
	1997:1	Post-employment case management implemented.	<i>Composite</i>
	1997:3	Case work specialization implemented.	<i>Composite</i>
	1997:4	JOBS adopts “work first” approach.	<i>Composite^a</i>

Key: *Composite*: Included in the cumulative sum for a given site, each component coded 1 in the quarter when the event occurred and all later quarters.

Dummy: Included as dummy variable for quarter only.

Waiver: Federal waiver dummy coded 1 beginning in quarter of approval.

TANF: TANF dummy coded 1 beginning in quarter of implementation.

^aItems omitted from composite in regressions predicting exit rate.

^bItem omitted from composite in regressions predicting entry rate.

^cItem omitted from composite in regressions predicting leavers' employment rate.

Source: Waiver approval dates are those for waivers allowing work requirements, as specified in Ziliak et al. (1998). Dates for TANF implementation are those in the Council of Economic Advisors (1999) report. Other dates are based on state and local administrative directives and interviews with government officials (see Hotchkiss et al., 1999, for further detail).

Table 2: Welfare Caseload Trends

Area	Initial		Maximum			Final		
	Quarter	Caseload	Quarter	Caseload	Change from Initial	Quarter	Caseload	Change from Maximum
Atlanta	92:1	20,461	94:3	22,031	7.6%	97:4	14,473	-34.3%
Baltimore	90:1	33,611	92:3	38,217	13.7%	97:3	23,947	-37.3%
Fort Lauderdale	93:1	17,673	93:3	19,265	9.0%	97:4	6,646	-65.5%
Houston	92:4	55,960	92:4	55,960	-	97:4	24,698	-56.9%
Kansas City	90:3	10,890	94:3	14,560	33.7%	97:4	10,847	-25.5%

Table 3: Contribution of Welfare Exit and Entry Flows to Caseload Declines

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Maximum Projected Final Caseload	Projected Caseload due to Exit Rate Increase	Projected Caseload due to Entry Rate Decline	Observed Final Caseload	Decline due to:		Observed Decline from Projected Maximum
					Exit Rate Change	Entry Rate Change	
Atlanta	25,176	18,147	20,799	14,473	-28%	-17%	-42%
Baltimore	44,651	29,278	37,982	23,947	-34%	-15%	-46%
Fort Lauderdale	19,497	10,314	13,392	6,646	-47%	-31%	-66%
Houston	59,885	42,450	37,500	24,698	-29%	-37%	-59%
Kansas City	15,806	12,217	14,173	10,847	-23%	-10%	-31%

Notes:

Column 1: Projected final caseload with no change in exit or entry rate. Projected caseload in the final quarter is solved recursively using $\hat{c}_{t+1} = \hat{c}_t (1 - d) + r P_t$, for all $t \geq q$, where \hat{c}_t is the projected caseload at t ; d is the initial exit rate (number of cases exiting welfare divided by the caseload) and r is the initial entry rate (number of cases entering welfare divided by county population), with each initial exit and entry rate calculated as the mean for q and the three prior quarters; and P_t is the county population in quarter t . The initial projected caseload is set equal to the observed caseload, i.e., $\hat{c}_q = c_q$. Initial quarter q is chosen to maximize the projected caseload.

Column 2: Projected final caseload with no change in entry rate but incorporating changes in exit rate. Projection based on $\hat{c}_{t+1} = \hat{c}_t (1 - d_t) + r P_t$ for $t \geq q$, where d_t is the observed exit rate in quarter t . Initial quarter q and exit rate r are those used above.

Column 3: Projected final caseload with no change in exit rate but incorporating changes in entry rate. Projection based on $\hat{c}_{t+1} = \hat{c}_t (1 - d) + r_t P_t$ for $t \geq q$, where r_t is the observed entry rate in quarter t . Initial quarter q and entry rate d are those used above.

Column 4: Observed final caseload.

Columns 5-7: Declines in caseload as indicated by projected values in columns 2-4 relative to the projected value in column 1.

Table 4: Determinants of Welfare Exit Rate

Dependent Variable: ln(Exits/Caseload)				
Independent Variables	(1)	(2)	(3)	(4)
Metropolitan Area Unemployment Rate	-.174 (.020)	-.058 (.020)	-.020 (.024)	-.060 (.024)
Welfare Policy Composites				
Atlanta		.057 (.017)	.016 (.041)	.033 (.039)
Baltimore		.178 (.024)	.141 (.034)	.135 (.031)
Fort Lauderdale		.396 (.059)	.247 (.078)	.296 (.075)
Houston		.056 (.016)	.048 (.033)	.073 (.031)
Kansas City		.073 (.018)	.132 (.032)	.129 (.032)
Atlanta Pact Requirement		.586 (.149)	.584 (.142)	.566 (.142)
Site Dummies	X	X	X	X
Site-Specific Time Trends			X	X
Site-Specific Quarter Effects				X
Adjusted R ²	.8258	.9106	.9183	.9327
Autocorrelation ^a	.323	-.110	-.168	-.085
N	126	126	126	126

Notes: Coefficient standard errors are in parentheses.

^aAutocorrelation here and below is calculated as $(\sum_s \sum_i \hat{\epsilon}_{si} \hat{\epsilon}_{s,i+1}) / \sum_s \sum_i \hat{\epsilon}_{si}^2$, where $\hat{\epsilon}_{si}$ is the residual in the model for site s in quarter t , and where the summations are understood to include observed data points. This may be interpreted as a weighted average of the autocorrelations across the five sites, where the weight is the sum of squares of the residual for observations in each site.

Table 5: Effects of Local Economic Conditions on Welfare Exit Rate

Dependent Variable: ln(Exits/Caseload)						
	(1)	(2)	(3)	(4)	(5)	(6)
Metropolitan Based Measures						
Independent Variables	Unemployment Rate			Employment Growth		
Current	-.060 (.024)	-.043 (.044)	-.077 (.053)	-.010 (.041)	-.017 (.023)	-.015 (.023)
Lagged 1		-.004 (.048)	.063 (.052)			.015 (.023)
Lagged 2		.002 (.035)	-.034 (.051)			-.026 (.023)
Lagged 3			-.022 (.048)			
Lagged 4			.039 (.047)			
Lagged 5			-.039 (.048)			
Lagged 6			.012 (.035)			
Prior Year Unemployment				.029 (.030)		
Dependent Variable: ln(Exits/Caseload)						
	(7)	(8)		(9)	(10)	
County-Based Measures						
Independent Variables	Unemployment Rate			Employment Growth		
Current	-.046 (.018)	-.050 (.034)		.004 (.019)	.009 (.020)	
Lagged 1		.010 (.041)			.004 (.020)	
Lagged 2		.009 (.030)			.012 (.020)	

Notes: Variables controlled: Site dummies, site-specific time trends, welfare policy composites and site-specific quarter effects. Coefficient standard errors are in parentheses.

Table 6: Effects of Policy Measures on Welfare Exit Rate

Dependent Variable: ln(Exits/Caseload)			
Independent Variables	(1)	(2)	(3)
Metropolitan Area Unemployment	-.059 (.027)	-.061 (.025)	-.064 (.027)
Federal Welfare Policy			
Federal Waivers	.215 (.049)	.039 (.068)	Entered
TANF Implementation	.110 (.052)	.032 (.067)	
Welfare Policy Composites			
Atlanta		.037 (.041)	as
Baltimore		.111 (.050)	26
Fort Lauderdale		.270 (.088)	
Houston		.058 (.039)	Dummy
Kansas City		.110 (.045)	
Atlanta Pact Requirement		.576 (.145)	Variables
Site Dummies	X	X	X
Site-Specific Time Trends	X	X	X
Site-Specific Quarter Effects	X	X	X
Adjusted R ²	.9111	.9315	.9249
Autocorrelation	-.010	-.087	-.156
N	126	126	126

Note: Coefficient standard errors are in parentheses.

Table 7: Determinants of Welfare Entry Rate

Dependent Variable: ln(Entries/Population)					
Independent Variables	(1)	(2)	(3)	(4)	(5)
Lag Dependent Variable					-.530 (.109)
Metropolitan Area Unemployment Rate	.153 (.021)	.036 (.022)	-.022 (.031)	-.041 (.033)	-.060 (.032)
Federal Welfare Policy					
Federal Waivers				-.022 (.055)	
TANF Implementation				-.130 (.051)	
Welfare Policy Composites					
Atlanta		-.261 (.053)	-.238 (.069)		-.398 (.073)
Baltimore		-.107 (.025)	-.108 (.033)		-.159 (.032)
Fort Lauderdale		-.247 (.064)	-.033 (.084)		-.062 (.079)
Houston		-.121 (.018)	-.074 (.036)		-.096 (.037)
Kansas City		-.028 (.018)	-.027 (.028)		-.042 (.026)
Atlanta Pact Requirement		-.465 (.160)	-.311 (.152)		-.368 (.138)
Site Dummies	X	X	X	X	X
Site-Specific Time Trends			X	X	X
Site-Specific Quarter Effects			X	X	X
Adjusted R ²	.6747	.8131	.8601	.8301	.8890
Autocorrelation	.268	-.200	-.388	-.109	-.086
N	122	122	122	122	117

Note: Coefficient standard errors are in parentheses.

Table 8: Determinants of Employment for Welfare Leavers

Dependent Variable: ln(Employed Leavers/Leavers)					
Independent Variable	(1)	(2)	(3)	(4)	(5)
Lag Dependent Variable				.211 (.095)	.335 (.091)
Metropolitan Area Unemployment Rate					
Current	-.024 (.016)	-.032 (.013)	-.037 (.014)	-.030 (.014)	-.029 (.020)
Lagged 1	-.032 (.019)	-.028 (.015)	-.025 (.015)	-.007 (.015)	.047 (.026)
Lagged 2	-.035 (.013)	-.034 (.011)	-.030 (.011)	-.036 (.013)	-.074 (.018)
Welfare Policy Composites					
Atlanta		-.138 (.043)	-.145 (.047)	-.093 (.048)	-.069 (.042)
Baltimore		.017 (.010)	.034 (.014)	.021 (.014)	.007 (.013)
Fort Lauderdale		.116 (.024)	.059 (.032)	.031 (.031)	.021 (.029)
Houston		-.026 (.007)	.007 (.014)	.005 (.013)	-.001 (.012)
Kansas City		.011 (.007)	.005 (.011)	-.004 (.011)	.007 (.010)
Atlanta Pact Requirement		-.154 (.058)	-.160 (.060)	-.145 (.056)	-.153 (.052)
Site Dummies	X	X	X	X	X
Site-Specific Time Trends			X	X	X
Site-Specific Quarter Effect					X
Adjusted R ²	.8436	.8981	.9076	.9157	.9383
Autocorrelation	.474	.198	.159	.015	-.050
N	125	125	125	121	121

Note: Coefficient standard errors are in parentheses.

Table 9: Effects of Local Economic Conditions on Employment for Welfare Leavers

Dependent Variable: ln(Exits/Caseload)						
Independent Variables	(1)	(2)	(3)	(4)	(5)	(6)
Lagged Dependent Variable	.496 (.089)	.335 (.091)	.191 (.103)	.270 (.095)	.575 (.084)	.525 (.085)
Metropolitan Based Measures						
	Unemployment Rate			Employment Growth		
Current	-.040 (.014)	-.029 (.020)	-.053 (.024)	-.005 (.016)	-.0076 (.0089)	-.0080 (.0088)
Lagged 1		.047 (.026)	.045 (.031)			-.0017 (.0098)
Lagged 2		-.073 (.018)	-.046 (.025)			-.0078 (.0094)
Lagged 3			.010 (.018)			
Lagged 4			-.027 (.017)			
Lagged 5			.003 (.018)			
Lagged 6			.002 (.013)			
Prior Year				-.055 (.015)		
Dependent Variable: ln(Exits/Caseload)						
Independent Variables	(7)	(8)		(9)	(10)	
Lagged Dependent Variable	.406 (.086)	.215 (.102)		.585 (.084)	.549 (.084)	
County Based Measures						
	Unemployment Rate			Employment Growth		
Current	-.042 (.010)	-.031 (.015)		.0039 (.0076)	.0065 (.0076)	
Lagged 1		.018 (.019)			-.0103 (.0084)	
Lagged 2		-.049 (.015)			-.0008 (.0082)	

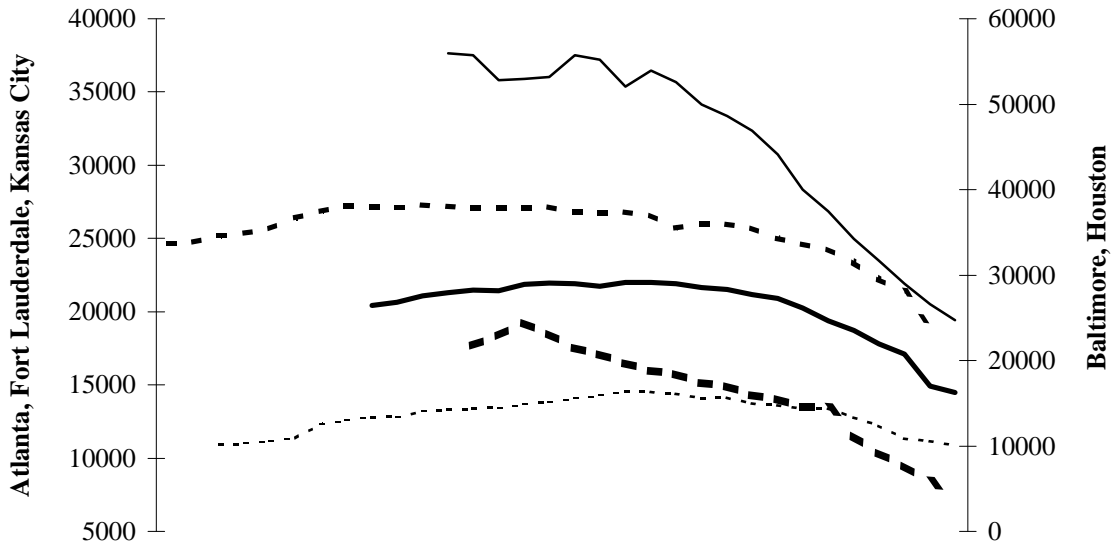
Notes: Variables controlled: Site dummies, site-specific time trends, welfare policy composites and site-specific quarter effects. Coefficient standard errors are in parentheses.

Table 10: Effects of Exit Rate on Employment for Welfare Leavers

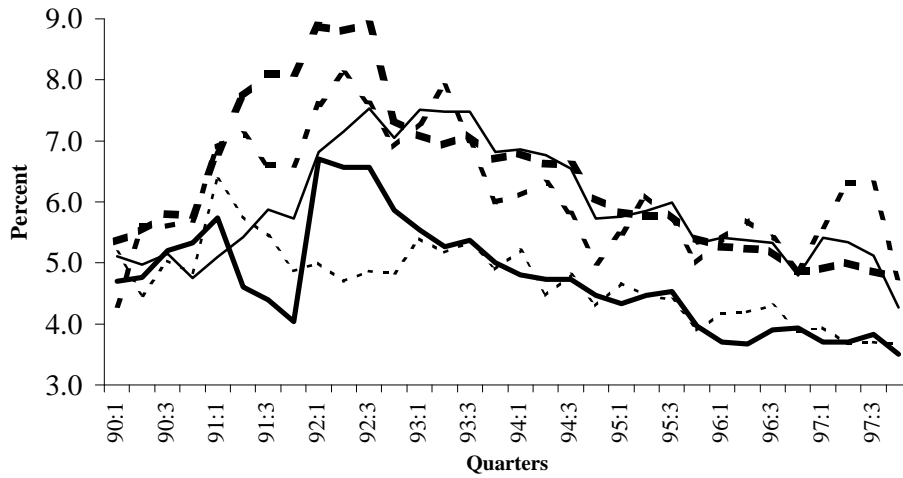
	(1)	(2)
Lag Dependent Variable	.352 (.079)	.329 (.085)
Site Exit Rates		
Atlanta	-.180 (.074)	.030 (.140)
Baltimore	-.015 (.051)	-.051 (.111)
Fort Lauderdale	.205 (.077)	.370 (.111)
Houston	-.089 (.064)	-.098 (.065)
Kansas City	.094 (.069)	.191 (.080)
Unemployment (+ 2 lags)	X	X
Site Dummies	X	X
Site-Specific Time Trend	X	X
Site-Specific Quarter Effects	X	X
Welfare Policy Composites		X
Adjusted R ²	.9424	.9477
Autocorrelation	-.028	-.127
N	121	121

Figure 1. Basic Welfare Caseloads and Unemployment Rates

A. Caseloads

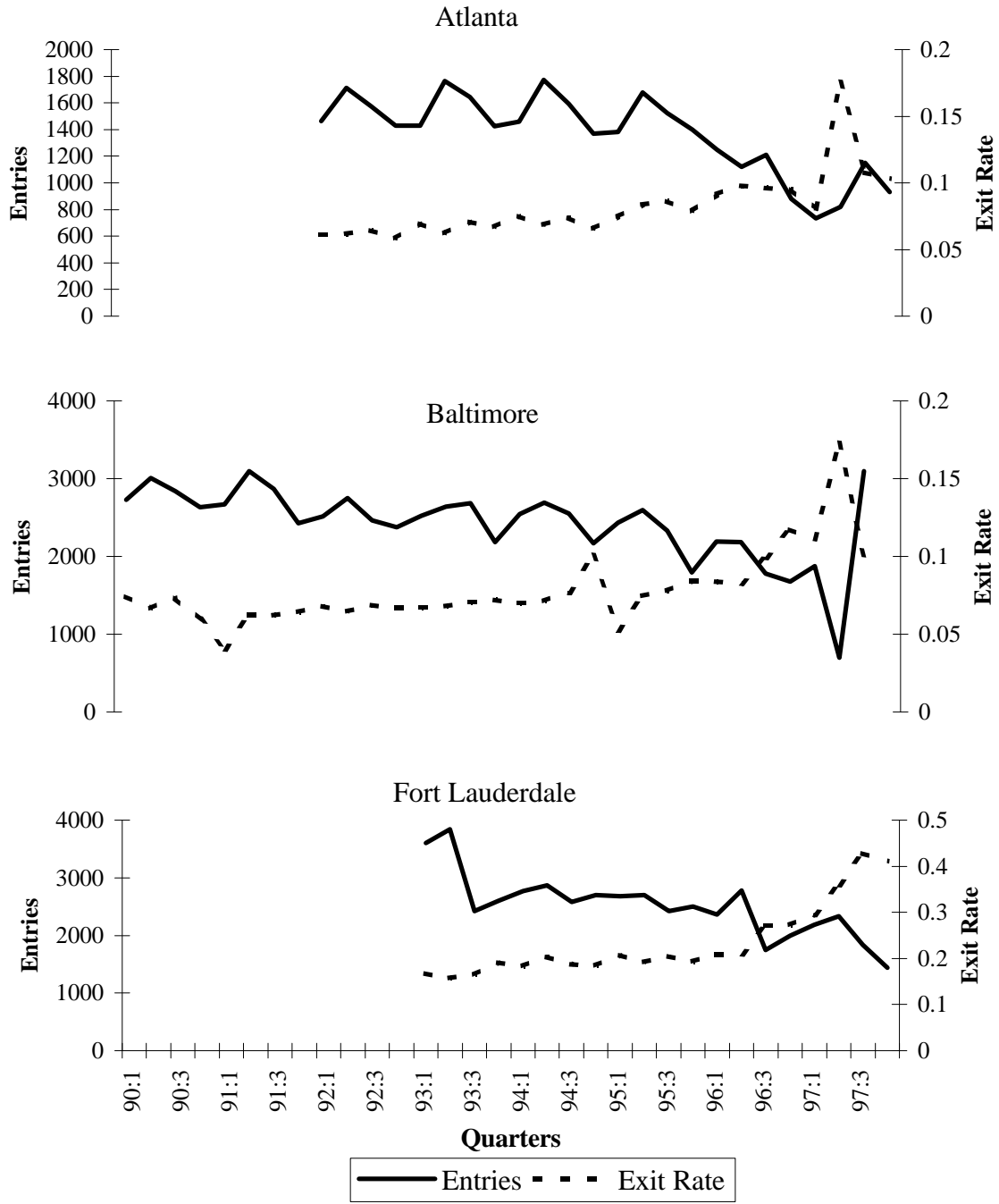


B. Unemployment Rates



— Atlanta - - - Ft. Lauderdale . . . Kansas City - - - Baltimore — Houston

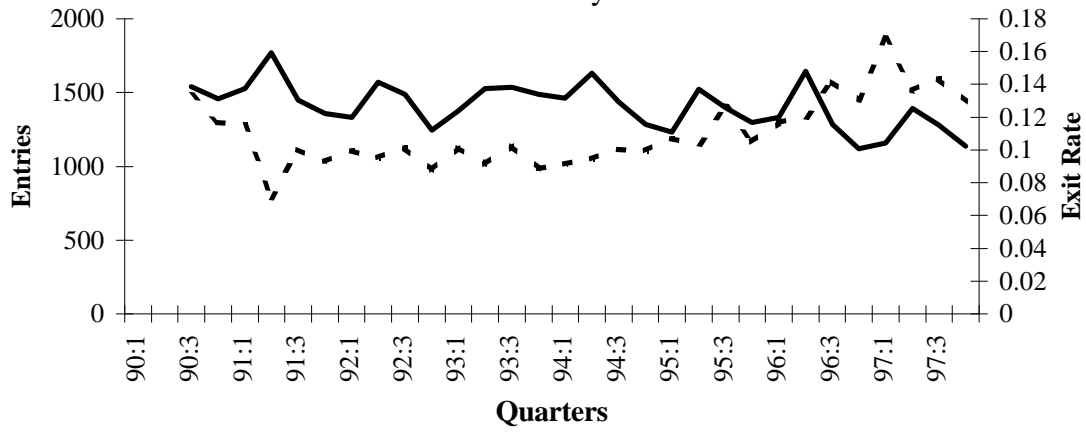
Figure 2. Flows Into and Out Of Welfare



Houston

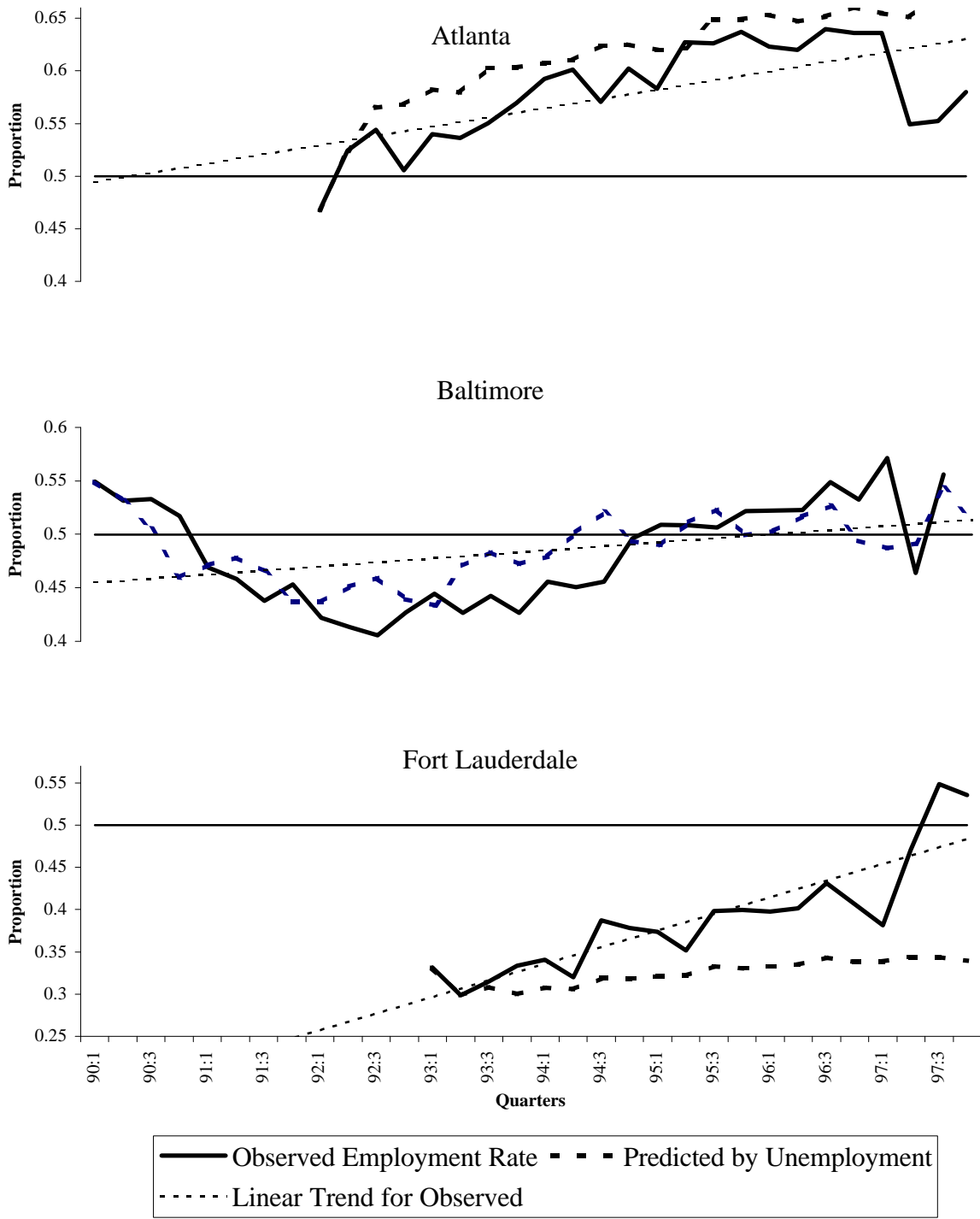


Kansas City

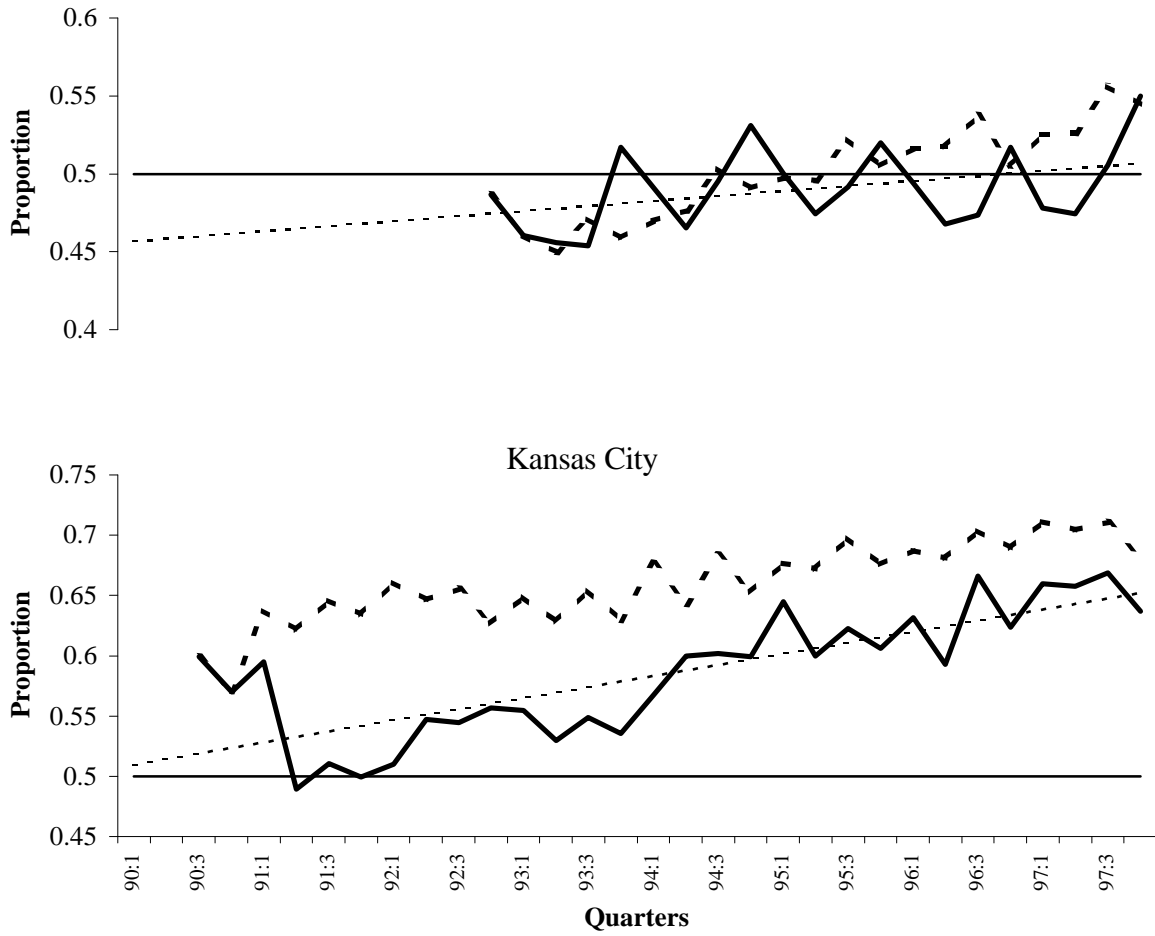


— Entries - - - Exit Rate

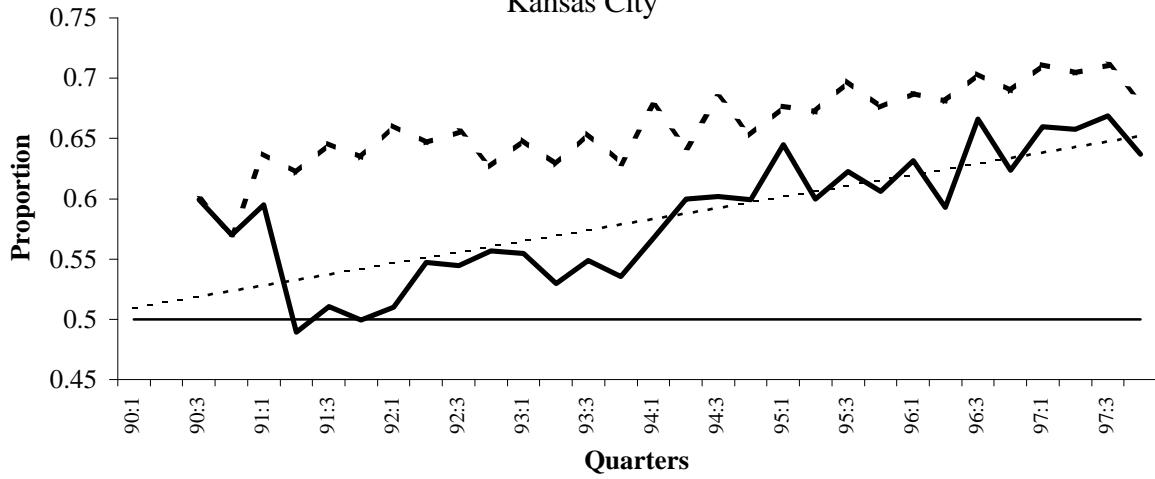
Figure 3. Employment Rates for Welfare Leavers



Houston



Kansas City



— Observed Employment Rate - - - Predicted by Unemployment
- - - Linear Trend for Observed