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

An Analysis of Five Urban Areas

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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 changes in both welfare exits and entries played an important role in the caseload declines of the 1990s. Policy changes were primary in causing changes in these flows, with economic conditions of secondary importance. Although welfare reforms were accompanied by substantial increases in the employment of those leaving welfare, this appears to be largely the result of an increasingly tight labor market rather than the reforms.

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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. 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.

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.

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 research suggests that it plays an important and possibly growing role (Blank 1989; Harris 1993; Hoynes 1996). Studies that examine variation in AFDC caseloads 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 U.S. over 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 Moffitt 1998). A careful study by Black, McKinnish and Sanders (1999) opens the possibility that the long-run impacts of economic factors are stronger than these results might suggest. They show that even when welfare recipients do not to respond to transitory variation in economic growth, they may be strongly

influenced by permanent changes.

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) examines annual caseload data for 51 states and the District of Columbia for the period 1977-1995. While she finds that economic conditions and policy changes influence caseloads, her model does not explain the national caseload increase in the early 1990s to its peak in 1994. However, the national caseload decline of just over 5 percent in 1994-1995 is 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, focuses on explaining the 20 percent decline in the welfare caseload from 1993 to1996, 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), which employs a model that omits the controversial lag measures of policy, 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 among those most likely to be eligible for welfare (Schoeni and Blank 2000).

Changes in tax codes and related policy may have 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. As Brueckner (2000) notes, the structure of federal welfare reform creates increased financial incentives for states to reduce welfare rolls, even in the absence of job opportunities, since it replaces a federal-state cost-sharing system with a block grant. On the other hand, by increasing state control over the program, it may facilitate the ability of states to implement policies that are politically popular, which may well lead to greater resources for employment-focused activities.

There are a number of recent attempts to determine the employment experiences of those leaving welfare in the 1990s (Brauner and Loprest 1999; Cancian et al. 1999; Loprest 1999; Parrott 1998; Tweedie 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 while receiving welfare. 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. Tweedie et al. (1999) review 21 state-level studies that examine employment outcomes for leavers. In most of these studies, the period of time over which welfare recipients exited the program is less than a year. The most extended analysis considers welfare exits over 27 months, still too short to separate out the impacts of policy and economic conditions.

The current study examines employment outcomes for those leaving welfare over a period spanning up to eight years during the 1990s. This covers the period of welfare reform and allows us to begin to disentangle the effects of policy and economic changes on the employment experiences of leavers. Whereas most of the studies dealing with the welfare caseload use specifications that attempt to predict caseload size, we examine separately the determinants of rates of flow into and out of welfare. Klerman and Haider (2000) argue that it is these rates that are most directly influenced by economic and policy factors, and their empirical tests, based on analyses of the welfare caseload in California counties, suggest that predicting 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.

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. We first identify the relative importance of changes in

inflows and outflows in explaining the caseload declines in each of our sites. We consider the role of economic conditions and policy in determining these flows. Next, we turn to examining the employment experiences of former welfare recipients during this period, considering how economic conditions and policy contribute to the employment of recipients. 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

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

received AFDC-Basic or TANF cash payments.[2] The recipient unit 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 though 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, 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. Of course, this measure captures only formal work arrangements, since an array of activities individuals undertake for compensation are omitted. It may be best understood to identify involvement in mainstream economic activities.[4]

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[2]The 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.

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

[4]The extent to which this measure underestimates actual employment in our population is not known. A recent report (Rockefeller Institute of Government 1999) reviews six studies

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.

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 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

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focusing on welfare recipients and former welfare recipients that attempt to measure the difference between the actual employment rate and that measured by state unemployment insurance wage-record data. Most show that actual employment is about 20-25 percent above that determined from wage record data. One study implies a gap of 66 percent, while one shows a gap of less than 5 percent. Since our focus will be on changes over time, if the bias does not change over time, the primary implications of our results will not be affected.

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, such as medical care and childcare assistance, that would have been lost under earlier rules. 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 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 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 largely continuous reform process. 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 among 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.

III. The Exit and Entry Components of the Caseload Decline

Trends in Caseload

Figure 1, panel A, 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.

Panel B shows that unemployment rates for the metropolitan areas of all 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 is less steady and appears to reflect a season pattern.

Welfare Entry and Exit Rates

Figure 2 shows the exit and entry rate for each site. The exit rate is the probability that a case head receiving welfare payments in a quarter will not be receiving payments in the following quarter. The entry rate is the number of new cases in a given quarter divided by the county population. 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 the observed 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 changes in entry and exit rates 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 at the end of 1997 if the rates of entry and exit observed at that time remained unchanged. The point in time for which these rates produced the largest projected caseload was then selected. The maximum projected caseload in each site is listed in column 1 of Table 3. The projected caseload is also calculated under the assumption that the rate of welfare entry remained at the current level but that exit rate followed its observed path (column 2). This is a measure of how much increases in exit rates alone contribute to the caseload decline. A similar projection is 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 final three columns in Table 3 present the projected and observed caseload declines in percentage terms. 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 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.

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

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

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, verifies that there is indeed a simple correlation. In a regression equation in which unemployment predicts the exit rate, with differences between sites controlled with dummy variables, each percentage point decline in the unemployment rate increases the natural logarithm of the exit rate by 0.17.[7]

Controls for policy variables reveal that the apparent effects are largely spurious. Equation 2 in Table 4 includes our measures of welfare policy change at each location.

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[6]At 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.

[7]When we estimated this regression using the standard correction for autocorrelation, the coefficient was 0.15 and highly significant. The estimate in the table is based on ordinary least squares in order to facilitate comparison across equations.

Controlling for welfare policy reduces the impact of unemployment by about two-thirds. It is clear that these measures of policy have substantially greater impact than unemployment. Inclusion of these measures also eliminates the autocorrelation that was observed in the error terms in equation 1.

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, four of the six 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 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 coefficients, 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, implying that the number of exits declines by 6 percent for each percentage point increase in unemployment. 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. A specification with a lagged dependent variable was considered, but the coefficient on the lag was not statistically significant and other coefficients were not altered substantially. 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 indicated that differences between coefficient estimates were 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 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. 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.[8] Since the metropolitan area is constructed to be 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 appears 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 with 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 employment growth in each of the industries. Such "shift-share" growth rates indicate the

[8]The 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 substantially influenced by welfare policies.

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. They 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. A similar approach using national unemployment rates to instrument local unemployment was not successful.

Given that the policy environment was changing dramatically over the 1990s, it is natural to ask whether the impact of economic conditions 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 provide little explanation of exit rates that is independent of that given by 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 coefficients is not statistically significant. Comparing across the three variations of the equation, we see that the estimated impact of unemployment is not influenced by differences in the policy controls.

In summary, whereas our estimates of the impact of unemployment suggest that economic factors played a role in increasing exit rates, the estimated impacts of policy variables is substantially greater. Although we are cautious about claiming either that our policy measures fully capture the impact of policy changes or that they capture only these impacts, our findings do suggest that changes outside the labor market--changes at least correlated with policy reform--are critical in explaining increases in exit rates.

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.[9] 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 appears to increase the entry rate.[10] 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 indicate that seasonal impacts differ across sites, 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 statistically significant negative autocorrelation, suggesting difficulties with the specifications. 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 equations 3-5 have obvious shortcomings, in none of them is there any suggestion that an increase in the unemployment rate spurs entry into welfare.

Various lag structures for unemployment and employment growth were also considered,

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[9]While 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 are small over the period considered and are therefore accounted for by the site-specific time trends.

[10]Correcting for autocorrelation of the error in equation 1 reduces the estimated coefficient by about 15 percent, but it remains statistically significant.

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 instrument with shift-share measures of employment growth or the national unemployment rate 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 entry 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 differ from those of previous studies, which generally find that economic factors are at least as important as policy in predicting the welfare caseload declines of the 1990s. We find policy measures to have a substantial and robust impact on welfare exits and entry and that these effects are much larger than the effects of economic factors. The greater impact of policy in our specifications is very likely due to use of more detailed measures of policy in our specification. In predicting exit rates, specifications that included 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 our analyses 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) finds that county employment growth and industry-specific income are 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) show that measures based on wages for low-skilled workers may better capture economic opportunities than the unemployment rate. Despite these results, most analyses suggest that the unemployment rate captures 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; Moffitt 1999; Schoeni and Blank 2000).

In fact, our estimates of the impacts of economic factors are not seriously discrepant from those of other studies. Consider the CEA (1999) estimates of the impact of the unemployment rate, which indicate that an increase of one percentage point in unemployment induces a 0.3 percent decline in the current caseload, a 1.3 percent increase in the following year, and a 3.9 percent increase two years ahead, implying that a permanent one point increase would produce a long-run impact of 4.9 percent.[11] 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 the exit rate 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,[12] somewhat more than that implied by the three lags of unemployment in the CEA 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 the CEA study.

Our finding that arrivals onto welfare are not responsive to economic conditions, while

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

[12]If 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.

difficult to explain in terms of theory, corresponds with findings of the few studies 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 research that uses differences across states.

IV. Employment Rates for Welfare Leavers

While the reduction in the caseload is perhaps a 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 employment levels for welfare leavers. While it is clear that current

welfare recipients are working at higher rates than in the past (often a direct 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 (solid line). 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 less 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).[13] 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

[13]Estimated coefficients and statistical significance in equations 1 and 2 are essentially unchanged when we use the standard correction for autocorrelated errors.

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 when account is taken of the recursive effects that are relevant in these models. Equation 4 implies that a permanent one percentage point increase in the unemployment rate ultimately reduces employment by 9.3 percent, while equation 5 implies an estimate of 8.4 percent.

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.

Table 9 tests a variety of alternative specifications for measures of local economic conditions. Controls are the same as in equation 5 of Table 8. The basic inference that unemployment has an appreciable influence is robust to all the alternatives considered. Entering current unemployment implies that a one-percentage-point permanent fall in unemployment increases welfare leavers' employment by 7.9 percent, while specifications that allow for more lags imply long-run 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 rightmost 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 rates of welfare leavers when all factors except unemployment are held constant.[14] To simplify the comparison, 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 explained by economic conditions.

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, 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

[14]We have also included the lag-dependent variable in the prediction, substituting in the predicted value from the prior quarter.

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 our conclusions about the relative importance of policy are at variance with those 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.

Using our more detailed measures designed to capture state legislative and administrative changes suggest that policy has 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. It is certainly possible 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 those leaving welfare are obtaining jobs at higher rates than previously, suggesting 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 to previous levels, 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.

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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.	*Waiver, Composite*
	1995:3	JOBS adopts "work first" approach.	*Composite*[b c]
	1995:4	Federal waiver granted allowing additional work requirements.	*Composite*[b c]
	1996:3	Additional work requirements implemented.	*Composite*[c]
	1997:1	State welfare reform passed.	*Composite*[b c]
	1997:3	Welfare-to-work efforts expanded.	*Composite*
	1997:3	Recipients dropped if they fail to sign personal responsibility pact.	*Dummy*
	1997:4	TANF implemented.	*TANF*
Baltimore	1995:4	Maryland welfare reform (FIP) implemented.	*Composite*
	1996:3	Federal waiver granted allowing work requirements.	*Waiver, Composite*
	1996:4	Welfare avoidance grants implemented.	*Composite*
	1996:4	TANF implemented.	*TANF*
Fort Lauderdale	1996:4	Florida welfare reform (WAGES) implemented.	*Composite*
	1996:4	TANF implemented.	*TANF*
	1997:4	Local workforce coalition established.	*Composite*
Houston	1995:3	JOBS program transferred to newly created Texas Workforce Commission.	*Composite*
	1995:4	JOBS adopts "work first" approach.	*Composite*
	1996:1	Federal waiver granted allowing work requirements, time limits.	*Waiver*

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

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.

[a]Items omitted from composite in regressions predicting exit rate.
[b]Item omitted from composite in regressions predicting entry rate.
[c]Item 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

	Initial		Maximum			Final		
Area	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 with Exit Rate Increase	Projected Caseload with Entry Rate Decline	Observed Final Caseload	Decline due to: Exit Rate Change	Decline due to: Entry Rate Change	Observed Decline from Projected Maximum
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 final quarter caseload based on information in quarter q 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 quarter 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 quarter 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	-.058	-.020	-.060
	(.020)	(.020)	(.024)	(.024)
Welfare Policy Composites				
Atlanta		.057	.016	.033
		(.017)	(.041)	(.039)
Baltimore		.178	.141	.135
		(.024)	(.034)	(.031)
Fort Lauderdale		.396	.247	.296
		(.059)	(.078)	(.075)
Houston		.056	.048	.073
		(.016)	(.033)	(.031)
Kansas City		.073	.132	.129
		(.018)	(.032)	(.032)
Atlanta Pact Requirement		.586	.584	.566
		(.149)	(.142)	(.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.

[a]Autocorrelation here and below is calculated as $(\sum_s \sum_t \hat{e}_{st} \hat{e}_{s\,t+1})/\sum_s \sum_t \hat{e}_{st}^2$, where $\hat{e}_{st}$ 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. Estimates based on the standard correction for autocorrelation that are reported in the text use this as the autocorrelation. Autocorrelations statistically significant at the 0.05 level according to Durbin's H are identified by asterisks.

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, the Atlanta pact dummy, 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			as
Atlanta		.037 (.041)	
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

Notes: Coefficient standard errors are in parentheses. Autocorrelations statistically significant at the 0.05 level according to Durbin's H are identified by asterisks.

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	.036	-.022	-.041	-.060
	(.021)	(.022)	(.031)	(.033)	(.032)
Federal Welfare Policy					
Federal Waivers				-.022	
				(.055)	
TANF Implementation				-.130	
				(.051)	
Welfare Policy Composites					
Atlanta		-.261	-.238		-.398
		(.053)	(.069)		(.073)
Baltimore		-.107	-.108		-.159
		(.025)	(.033)		(.032)
Fort Lauderdale		-.247	-.033		-.062
		(.064)	(.084)		(.079)
Houston		-.121	-.074		-.096
		(.018)	(.036)		(.037)
Kansas City		-.028	-.027		-.042
		(.018)	(.028)		(.026)
Atlanta Pact Requirement		-.465	-.311		-.368
		(.160)	(.152)		(.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

Notes: Coefficient standard errors are in parentheses. Autocorrelations statistically significant at the 0.05 level according to Durbin's H are identified by asterisks.

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	.335
				(.095)	(.091)
Metropolitan Area Unemployment Rate					
Current	-.024	-.032	-.037	-.030	-.029
	(.016)	(.013)	(.014)	(.014)	(.020)
Lagged 1	-.032	-.028	-.025	-.007	.047
	(.019)	(.015)	(.015)	(.015)	(.026)
Lagged 2	-.035	-.034	-.030	-.036	-.074
	(.013)	(.011)	(.011)	(.013)	(.018)
Welfare Policy Composites					
Atlanta		-.138	-.145	-.093	-.069
		(.043)	(.047)	(.048)	(.042)
Baltimore		.017	.034	.021	.007
		(.010)	(.014)	(.014)	(.013)
Fort Lauderdale		.116	.059	.031	.021
		(.024)	(.032)	(.031)	(.029)
Houston		-.026	.007	.005	-.001
		(.007)	(.014)	(.013)	(.012)
Kansas City		.011	.005	-.004	.007
		(.007)	(.011)	(.011)	(.010)
Atlanta Pact Requirement		-.154	-.160	-.145	-.153
		(.058)	(.060)	(.056)	(.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

Notes: Coefficient standard errors are in parentheses. Autocorrelations statistically significant at the 0.05 level according to Durbin's H are identified by asterisks.

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

Dependent Variable: ln(Employed Leavers/Leavers)						
Independent Variables	(1)	(2)	(3)	(4)	(5)	(6)
Lag-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		-.074 (.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(Employed Leavers/Leavers)					
Independent Variables	(7)	(8)		(9)	(10)
Lag-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, the Atlanta pact dummy, and site-specific quarter effects. Coefficient standard errors are in parentheses.

Figure 1. Basic Welfare Caseloads and Unemployment Rates

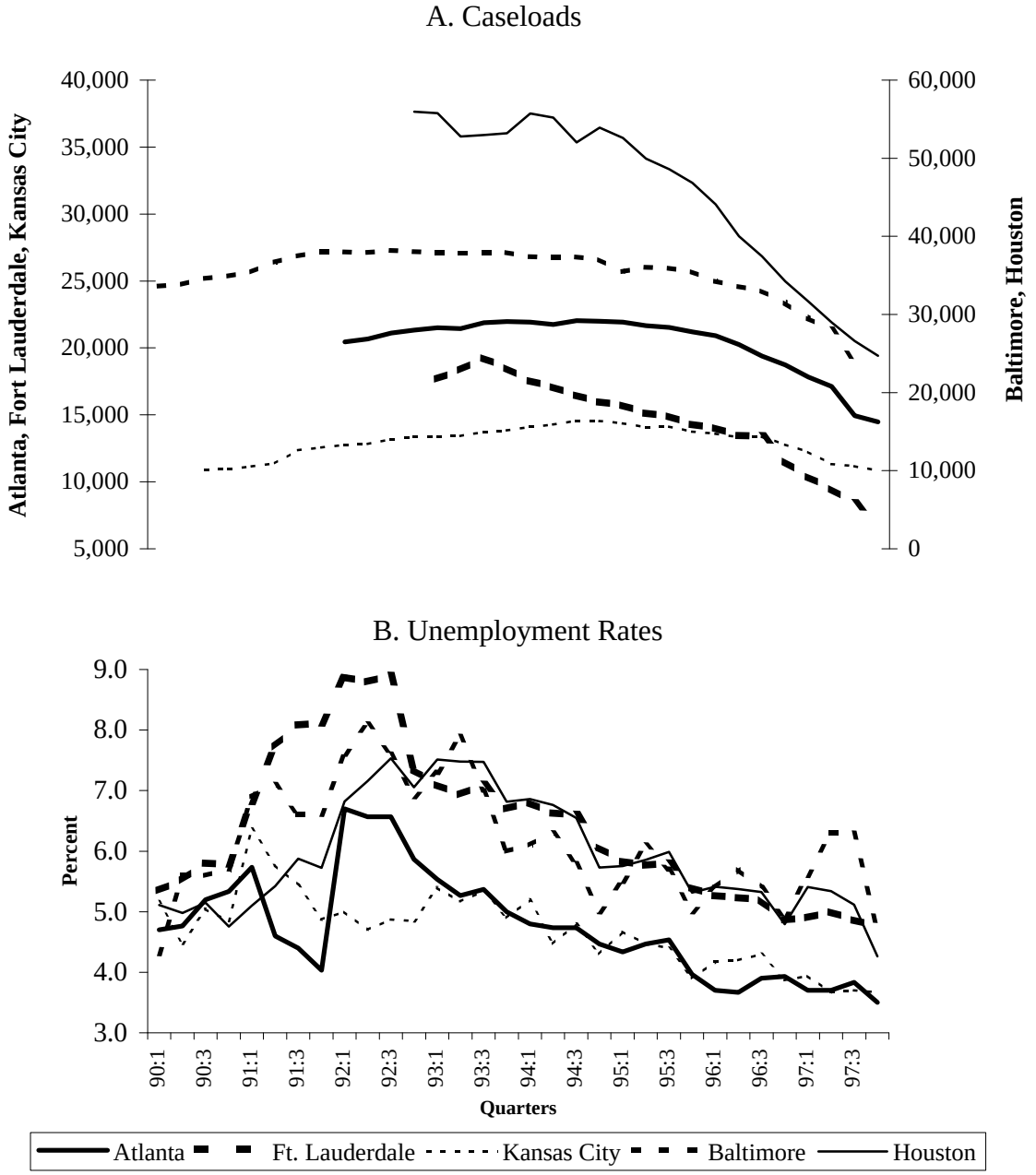
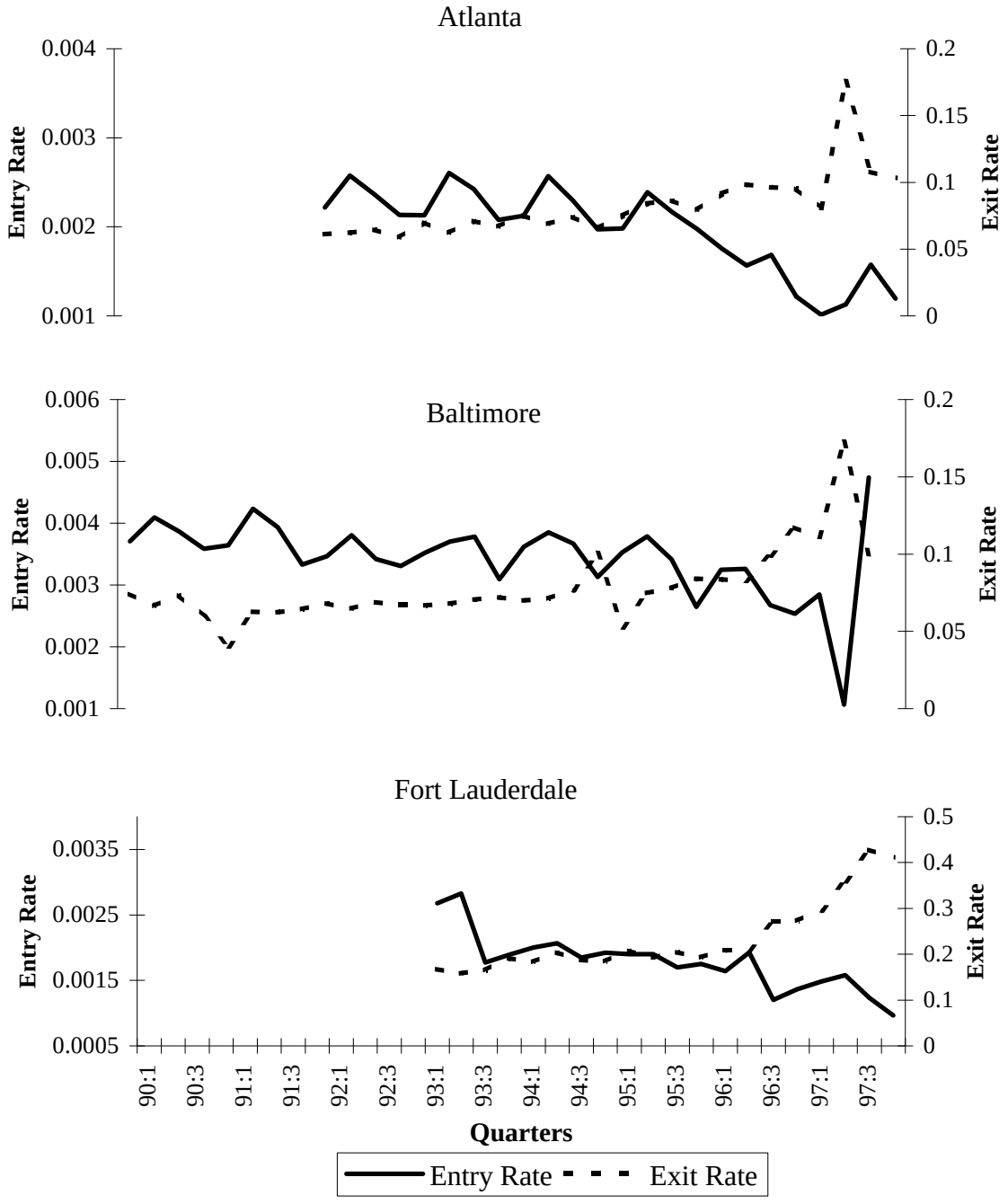
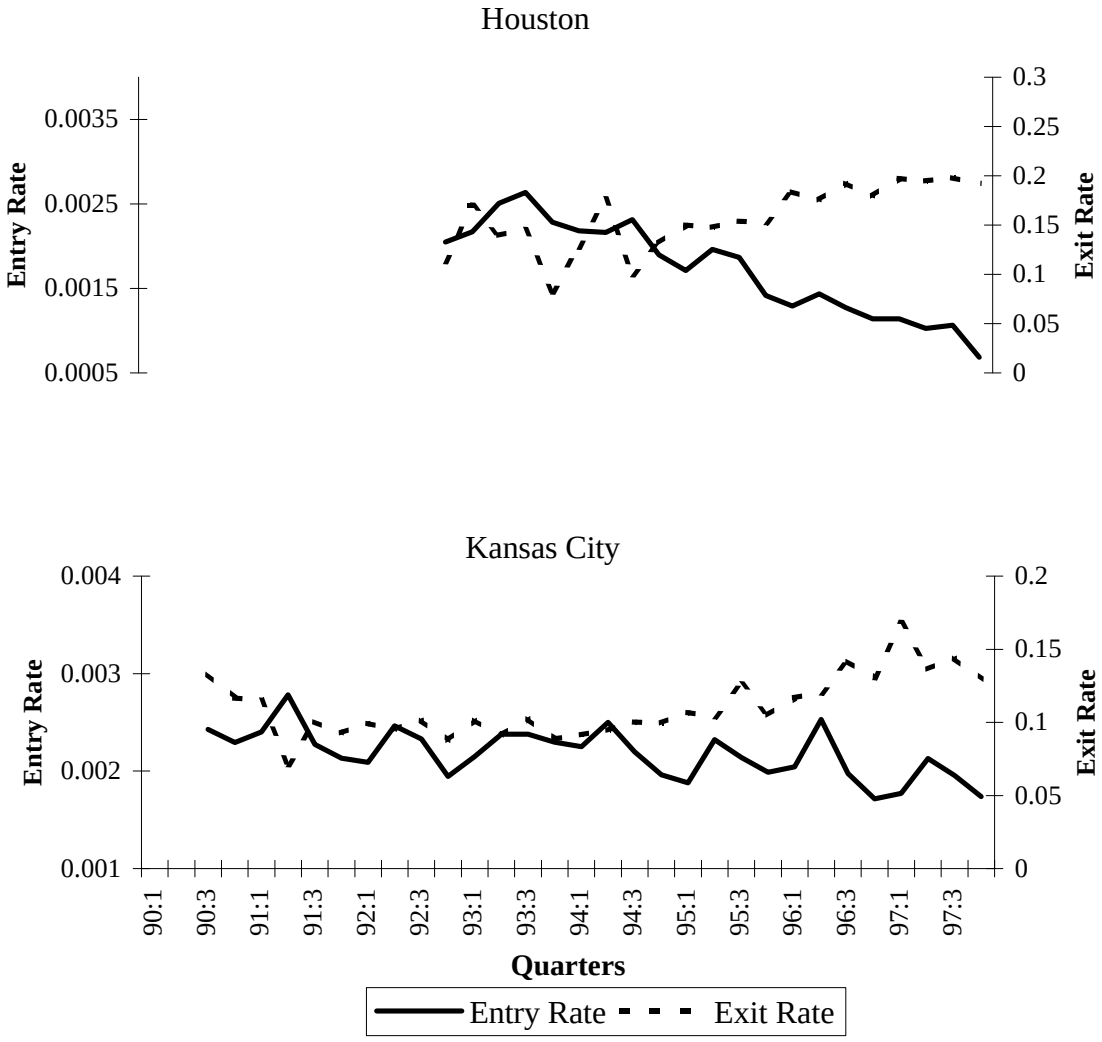


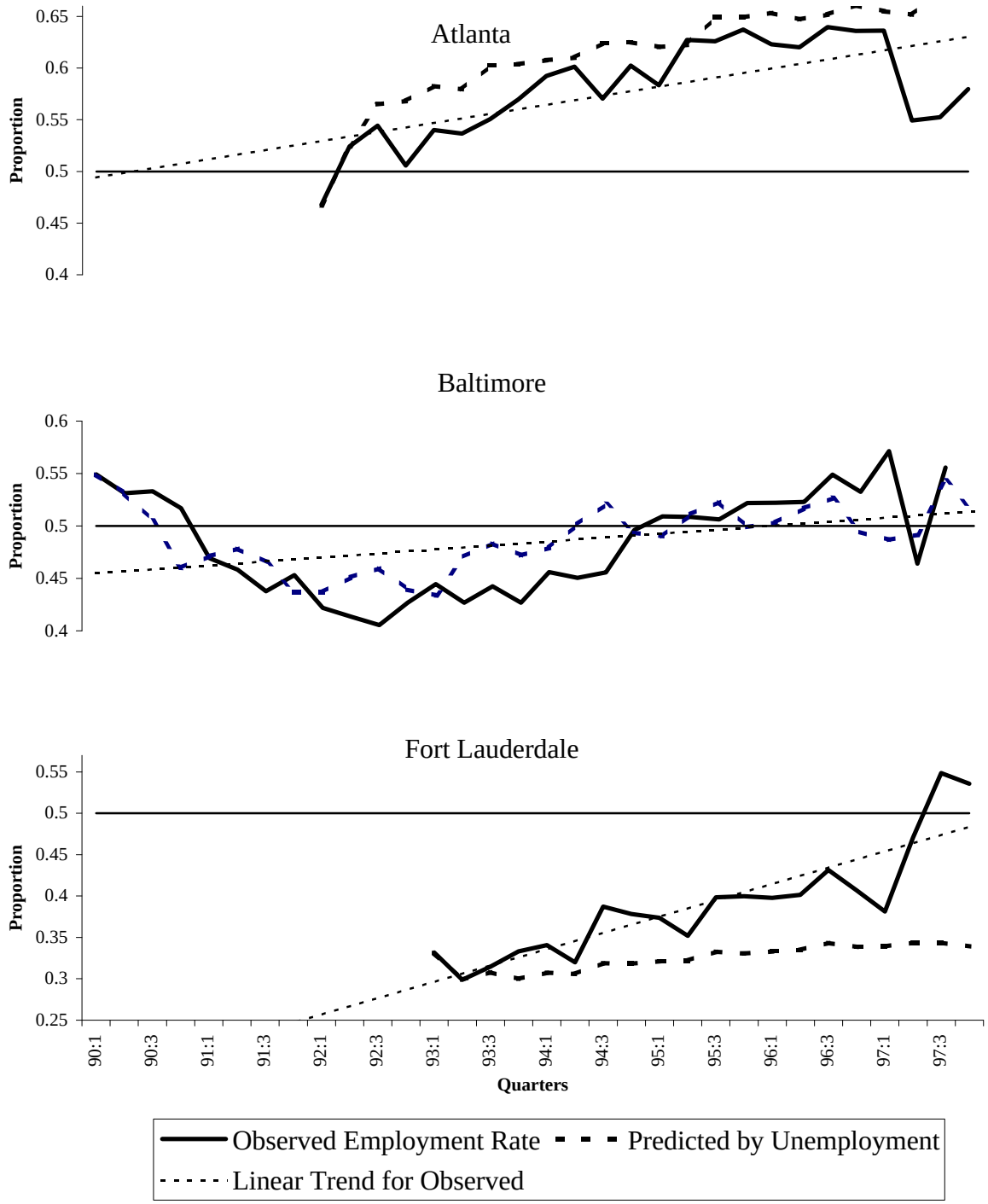
Figure 2: Flows Into and Out Of Welfare




Houston
Entry Rate
0.0035
0.0025
0.0015
0.0005
0.3
0.25
0.2
0.15
0.1
0.05
0
Exit Rate

Kansas City
Entry Rate
0.004
0.003
0.002
0.001
0.2
0.15
0.1
0.05
0
Exit Rate
90:1
90:3
91:1
91:3
92:1
92:3
93:1
93:3
94:1
94:3
95:1
95:3
96:1
96:3
97:1
97:3
Quarters
Entry Rate
Exit Rate

Figure 3. Employment Rates for Welfare Leavers




Houston
Proportion
0.6
0.55
0.5
0.45
0.4
Kansas City
Proportion
0.75
0.7
0.65
0.6
0.55
0.5
0.45
90:1
90:3
91:1
91:3
92:1
92:3
93:1
93:3
94:1
94:3
95:1
95:3
96:1
96:3
97:1
97:3
Quarters
Observed Employment Rate
Predicted by Unemployment
Linear Trend for Observed