

**Food Stamp Receipt by Families with Non-Citizen Household Heads in Rural Texas
Counties**

**Final Report to the Southern Rural Development Center,
Mississippi State University**

by

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Executive Summary

This report examines the Food Stamp caseload in Texas between 1995 and 2001. The primary objective is to identify the factors affecting the Food Stamp caseload patterns for citizens and non-citizens in the metropolitan and nonmetropolitan counties of the state. This objective is addressed through the use of descriptive data and analysis that focus on the demographic and program participation characteristics of Food Stamp case heads. The data used are extracted from a time series of monthly Food Stamp client files.

The report proposes that the additional burden of immigration status verification will cause non-citizens to be more sensitive to administrative processes that affect all cases such as the reduction in eligibility recertification intervals. To explore this proposition, an event history technique is applied to a longitudinal file comprised of the monthly client files from September 1995 through August 2001. Exits during the six year period are evaluated for the September 1995 caseload. Four event history models (all cases, citizen cases, non-citizen cases where all dependents are non-citizens, and non-citizens cases with one or more citizen dependents) are estimated to measure the hazard of caseload exit using demographic, economic, and program factors as independent variables.

The models show that, on the whole, non-citizens have an exit hazard 1.25 times greater than that for citizens. For all cases, older case heads are less likely to exit, with the effect being strongest for citizen cases and weakest for mixed non-citizen cases. Cases that no longer have a dependent are less likely to exit than those cases which continue to have a dependent and this effect is greatest for mixed non-citizen cases. Larger households are less likely to exit. For the whole caseload, each additional case member reduces the exit hazard by 10.8 percent. This effect is weakest for mixed non-citizen cases where each additional person reduces the exit hazard by 7.6 percent. Female heads are less likely to exit than male heads and this effect is most apparent in citizen cases where females are 75 percent as likely to exit as males. For the citizen caseload, Hispanic and Black case heads are less likely to exit than Anglo case heads but case heads that are members of the Other race/ethnicity group are more likely to exit than Anglos. For the all non-citizen cases, Hispanics are less likely to exit than Anglo non-citizens. In the mixed non-citizen case model, the race/ethnicity of the case head is not a significant variable. Lower levels of human capital in the form of educational attainment reduce the exit hazard for all cases. The effects of education are weakest for mixed non-citizen cases and

greatest for citizen cases. Higher levels of income per case member increase the exit hazard but the effect is small. In all four models, a one unit change in the income per case member increases the exit hazard by 0.1 percent. Employed case heads are less likely to exit than unemployed case heads. The effect of employment is greatest for citizen case heads and has the least effect for mixed non-citizen case heads. Longer certification periods reduce the exit hazard in all four models. The effect of a longer certification period is greatest for citizen cases and least for mixed non-citizen cases. Receiving TANF benefits reduces the exit hazard for citizen cases and mixed non-citizen cases but is not significant in the model for cases comprised entirely of non-citizens. Nonmetropolitan residence reduces the hazard of exit for citizen cases and the all non-citizen cases but this variable is not significant in the model for mixed non-citizens.

The results suggest that there is relatively little difference in the exit patterns of citizens and non-citizens and that the Food Stamp program represents a coping strategy for low-income households regardless of their nativity. Future research should evaluate how regional variations in program administrative practices and local economic conditions affect the participation of citizen and non-citizen households.

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INTRODUCTION

During the 1990s, the Food Stamp caseload of the United States declined from a historical peak size of 27.5 million persons in 1994 to 17.2 million in 2000. This represents a six year decline of around 37.5 percent. One result of this reduction is that, in terms of participants, the 2000 Food Stamp caseload was smaller than any caseload since 1978 (USDA 2002).

Both a robust economy and more restrictive welfare reform legislation have contributed to human service caseload declines during the 1990s (e.g. Wallace and Blank 1999). For the Food Stamp caseload, this decline has also been characterized by a reduction in the participation rates of eligible households (USDA 2001). This lack of participation raises the possibility that not all groups have fared equally well under welfare reform.

One such group could be America's non-citizen, immigrant population. Although Food Stamp eligibility for non-citizens was restricted by welfare reform, non-citizen participation fell sharply in the 1990s even for those who remained eligible for the program (Cunningham 2002). This occurred even though America's 'new immigrants' have become increasingly characterized by high poverty rates, low levels of human capital, and language barriers. Consequently, it is likely that, even in an expanding economy, many working non-citizens would have marginal employment opportunities and less income security than their citizen counterparts.

It is of interest, then, to ask whether and, if so, how non-citizen caseload decline might have been differentially impacted by welfare reform policy. This paper addresses these issues through an examination of Food Stamp receipt patterns for citizen and non-citizen cases in Texas before and after welfare reform. Monthly caseload data from September 1995 through August 2001 are used to examine exit probabilities for citizen and non-citizen Food Stamp caseloads. These patterns are evaluated against economic, policy, and demographic factors within

metropolitan and nonmetropolitan counties.

The following section presents a review of factors associated with Food Stamp caseload decline among non-citizens. Then, the study design is described. Next, the descriptive and analytical results of the study are presented. Finally, the implications and conclusions of the research are discussed.

BACKGROUND ON NON-CITIZEN FOOD STAMP CASELOAD DECLINE

Introduction

Beginning in the mid-1990s, immigrants in the United States have been the subject of restrictive legislation aimed at minimizing the use of public social services by non-citizens. This legislation has included attempts in California to deny public education to undocumented alien children (i.e., Proposition 187, 1994) and the passage of PRWORA (Personal Responsibility and Work Opportunity Reconciliation Act, 1996), national welfare reform which stated that self-sufficiency was a basic principle of U.S. immigration policies. Also, recent legislation has produced more stringent requirements for proof of citizenship when individuals apply for any type of federal benefits, and has initiated enforceable affidavits of support against immigrant sponsors for the costs of means-tested benefits (Illegal Immigration Reform and Immigrant Responsibility Act, 1996). As such, non-citizens have been particularly affected by changes in the eligibility and participation criteria of America's human service programs. This is especially true for the Food Stamp Program (FSP). PRWORA allowed legal immigrants who entered the United States before August 22, 1996 to retain eligibility for TANF (Temporary Assistance to Needy Families) and Medicaid. However, with few exceptions, non-citizens were categorically barred by PRWORA from participation in the FSP (Fix and Passel 1999).

In spite of such restrictions, relatively little research has focused on the impacts of welfare reform on Food Stamp receipt by non-citizens. To date, the majority of the literature on welfare reform addresses caseload decline in TANF, the nation's income support program for families and children. Within the literature, there are few studies that specifically address the demographic characteristics of recipients so that it is difficult to assess the impacts of welfare reform on specific groups or to evaluate the effects of welfare reform on caseload composition

(e.g. Gleason et al. 2001). Additionally, rural-urban differences in caseload responses to welfare reform have received scant attention in the literature (Findeis et al. 2001).

Consequently, our knowledge of how and where changes in the FSP might have impacted particular populations such as non-citizens remains limited. To date, these issues have been addressed by two research strands in the literature. One literature tradition is the study of caseload dynamics and the other has focused more on participation rates. Each of the research trends is discussed in more detail below.

Caseload Dynamics

Initial interest in the impacts of welfare reform was centered almost exclusively on caseload decline in TANF. In general, this body of research examines the relative impacts of the economy and policy on caseload size (e.g. Bartik and Eberts 1999; Blank 1997; CEA [the President's Council of Economic Advisors] 1999; 1997; Figlio and Ziliak 1999; Moffitt 1999; Wallace and Blank 1999; and Ziliak, et al. 1997). Typically, this research finds that caseload size is inversely related to economic expansion, and the economy accounts for about 25 to 50 percent of caseload decline during the latter 1990s. The results for policy have been more variable. These same studies estimate that the relative contribution of welfare reform to caseload decline ranges from nearly nothing (Figlio and Ziliak 1999) to about 75 percent (Wallace and Blank 1999). Even though there is considerable disagreement on the nature and the magnitude of the effect, the consensus is that policy changes also have contributed to TANF caseload decline.

With only a few exceptions (e.g. Wallace and Blank 1999), the FSP received little attention in the post-reform caseload literature until relatively recently. The increasing interest in

Food Stamp caseload decline came as FSP participation rates fell to historically low levels in the latter 1990s (USDA 2001). For example, by 2000, the national FSP caseload of 17.2 million participants was smaller than at any time since 1978 when it stood at 16.0 million (USDA 2002). This compares to a peak caseload size of 27.5 million in 1994. Because of the FSP's role as America's nutritional safety net, this decline generated concerns about the food security of low income households. To address such concerns, much of the post-reform literature on the FSP caseload has followed the lead of the earlier TANF caseload studies by attempting to identify the relative impacts of the economy and welfare reform policy on the decline of the Food Stamp caseload. For example, Wilde et al. (2000) find that between 1994 and 1998, 35 percent of the FSP caseload decline was due to economic conditions and 12 percent occurred because of welfare reform and political variables. Figlio et al. (2000) also attribute about 35 percent of the 1994-1999 Food Stamp caseload decline to the economy but find policy contributed to only a fraction of this decline. Overall, Dion and Pavetti's (2000) review of the literature finds that 28 to 44 percent of the FSP decline in the 1990's is explained by the decline in the unemployment rate. This suggests that between 56 and 72 percent of the FSP caseload decline can be attributed to policy or other factors (Currie and Grogger 2001).

More recently, Kornfeld (2002) uses administrative and survey data to examine Food Stamp caseload patterns between 1987-1999. Kornfeld (2002) is unique among the studies of FSP caseload decline for his use of detailed demographic data that include citizenship status. For the 1994-1999 period, Kornfeld (2002) finds that about 20 percent of the caseload decline can be attributed to the expanding economy, 21 percent is due to changes in TANF requirements, and about 10 percent occurs because of restricted eligibility for adults without dependents and non-citizens. He estimates that non-citizen welfare reform rules alone account for between seven and

10 percent of the FSP caseload decline between 1994-1999 (Kornfeld 2002).

The majority of the caseload decline studies has used national level data. As such, the caseload studies typically do not include metropolitan and non-metropolitan distinctions as factors in their analyses. Nonetheless, several state level studies have examined urban rural difference in caseload decline. Goetz et al. (1999) find that TANF caseload decline is less in nonmetropolitan nonadjacent counties than in other Kentucky counties. In general, the Food Stamp caseload studies also find that nonmetropolitan caseload decline has been less than metropolitan decline (e.g., Henry et al. 2000; Reinschmiedt et al. 1999). However, the effects of the economy on caseload decline appear to be more variable across nonmetropolitan areas. For example, Ziliak and Figlio (2000) examine Food Stamp caseloads in Oregon and Wisconsin and find that, in the short run, the rural FSP is less responsive to changes in the economy. Henry et al. (2000) suggest that the concentration of low wage employment sectors in particular nonmetropolitan areas reduces the rate of Food Stamp caseload decline.

In summary, the post-reform caseload dynamics literature finds that the expanding economy of the 1990s was a significant factor in the declining numbers of human service recipients. Employment opportunities and rising income levels reduced the poverty levels of many low income households, thus permitting self-sufficiency for many Americans. Although research indicates that welfare reform policies also contributed to caseload, there is little agreement on how this occurred. Further, the research says little about how reform policies have affected particular demographic groups. There is little doubt that an expanding economy is an effective anti-poverty tool. However, the combined effects of the economy and reform policy rarely explain more than 50 percent of caseload decline in the 1990s and, as such, the causes and consequences of caseload reductions following welfare reform remain ambiguous (USDA 2001).

Furthermore, for nonmetropolitan counties, the effects of the economy on caseload decline appear to be less important and more variable than for metropolitan counties.

Participation Studies

Another way to address caseload decline is to examine the reasons why eligible households choose whether or not to participate in the various public assistance programs. The United States Department of Agriculture funds ongoing research on the causes and consequences of Food Stamp participation. As such, the FSP has been a primary subject in the program participation literature. This body of research typically uses survey data such as the Current Population Survey to evaluate the relationships between program eligibility and program participation. In general, participation studies partition caseload decline into reductions based on the loss of eligibility (i.e., an increase in income) versus reductions based on the decision not to participate.

Wilde et al. (2000) use 1994-1998 household data from the Census Bureau's Current Population Survey, and find that 28 percent of the decline in FSP participation rate was due to a reduction in the number of low income families and 55 percent occurred because of a drop in the proportion of low income people that participate in the program. One conclusion is that the recent declines in the FSP caseload could be due to new barriers that accompanied the implementation of welfare measures (Wilde et al. 2000).

Several post-reform participation studies have included non-citizens. Cunyngnam's (2002) descriptive study finds that between 1997 and 2000, the Food Stamp participation rate for eligible non-citizens declined from 77.7 percent to 44.7 percent. This compares to a decline from 64.0 percent to 59.3 percent for all households. The data indicate that by 2000,

participation rates had begun to rise for all major subgroups except disabled non-elderly adults, the elderly, and citizen children living with non-citizen adults (Cunningham 2002).

In a report to the U.S. Congress on declines in FSP participation, the Department of Agriculture (USDA 2001) attributes 20 percent of the Food Stamp decline between 1994-1999 to the decline in non-citizens' participation rates even though this group made up only about 14 percent of the caseload in 1994. From the analysis and a comprehensive review of the literature, the USDA report to Congress identifies several possible causes for contemporary nonparticipation trends. Among these are: the method of welfare reform implementation could have unintentionally kept eligible households from participating; confusion about the rules of welfare reform could have lowered the participation of eligible households; and, a strengthened economy along with an increased perception of stigma could have caused eligible households to reassess their need for food assistance (USDA 2001).

Another body of post-reform participation research focuses exclusively on the program participation rates of citizens and non-citizens. Much of this literature includes TANF and Medicaid participation rates as well as those for the FSP (e.g., Fix and Passel 2002). A central feature in these studies has been the question of whether public assistance programs serve as a 'welfare magnet' for recent immigrants. Consequently, a primary focus in the post-reform immigration literature has been the degree to which non-citizen participation rates are higher than those for citizens (e.g., Borjas 1999a; Fix and Passel 1994).

The immigration studies typically find that the crude rate of immigrant program participation is higher than that for non-immigrants. For example, Borjas (1999b) finds that between 1994-1997 the FSP participation rates for native households declined from 8.7 percent to 6.8 percent while those for immigrants fell from 12.5 percent to 9.3 percent. Based on the

aggregate data, immigrants continue to have higher participation rates than natives even though they experienced a larger reduction in participation rates. However, when Borjas (1999b) accounts for differences in the educational levels of natives and immigrants, the data indicate that immigrants are actually less likely than natives to receive FSP assistance. Similarly, Fix and Passel (2002) examine TANF, Medicaid, and the FSP in 1999 and find that, when demographic characteristics are accounted for, low income legal immigrants with children have lower TANF and Food Stamp participation rates than their citizen counterparts. Their study also shows that among poor families, the benefit utilization rates for all major benefit programs are substantially lower for the citizen children of non-citizen parents than for citizen children with citizen parents (Fix and Passel 2002). Further, Fix and Passel (2002) find that for both non-citizen and citizen families, about 25 percent of the decline in participation rates can be attributed to increases in income and only about 10 percent of the decline is due to changes in family composition. However, this study found that two-thirds of the reduction in participation rates for both citizen and non-citizen families could be attributed to changes in their willingness to participate in the program (Fix and Passel 2002). In explaining that part of immigrant participation decline not accounted for by denials or income gains, Fix and Passel (1999; 2002) use the term “chilling effects” to indicate the deterrent effects of confusion and fear on eligible immigrants.

Relatively few participation studies have addressed urban-rural differences. McConnell and Ohls (2000) use a variety of administrative and survey data sources to estimate differences in the Food Stamp participation rates of the urban and rural populations. Their research indicates that between 1996-1998, nonmetropolitan participation rates fell less rapidly than metropolitan rates so that by 1998, rural participation rates exceeded those for urban areas. Based on interviews with recipients, McConnell and Ohls (2000) conclude that the slower decline in

participation rates in rural areas could be due to better administrative practices. More recently, Currie and Grogger (2001) examination of FSP caseload declines distinguishes between central city, the rest of the metropolitan area, and rural areas. They find that the impact of TANF-related welfare reform on FSP participation has been strongest in the central city areas and has had a negligible effect on rural participation (Currie and Grogger 2001). The results also show that a one month increase in the certification period produces a 0.3 percent increase in the rural FSP participation rate versus a 0.1 percent increase in participation for central city households (Currie and Grogger 2001). The differential responses to the increase in certification months suggest that rural households might be more sensitive to changes in program administration procedures.

To summarize, participation studies examine the propensity to take part in public assistance programs. The post-reform studies have focused on the FSP participation rate as well as immigrants utilization of various program benefits. Empirical evidence shows that, following welfare reform, the participation rates of eligible non-citizens have declined more than those for eligible citizens. Explanations for non-citizen participation declines include administrative barriers, lack of knowledge about program changes, increased stigma, and fear. The participation literature has little to say about the effects of urban versus rural residence on the FSP utilization rates of immigrants. However, the literature suggests that economic disadvantage in rural counties can lead to higher FSP participation among the working poor. Also, the literature suggests that there are urban-rural differences in program administration as well as recipient responses to administrative rules.

Both the caseload dynamics and the participation rate studies suggest that at least part of the decline in the number of non-citizen Food Stamp participants can be explained by the economy. Yet, the reasons for overall caseload decline, be they due to welfare reform policy or

the decision not to participate by eligible non-citizens, remain ambiguous. The following section attempts to synthesize what is known about immigrant Food Stamp receipt into an explanatory framework.

Summary

Existing caseload dynamics research indicates that at the aggregate level, falling unemployment rates and expanding economic opportunities lead to caseload decline. Similarly, when the economy operates at the individual level, rising income can lead to program ineligibility and a decline in the overall FSP participation rate. Typically, however, neither the caseload nor the participation studies can explain but about one-half of the Food Stamp caseload decline in the 1990s (USDA 2001). In the caseload studies, the impacts of welfare reform policy on Food Stamp caseload decline remain uncertain. For the participation studies, the ambiguity centers on why eligible individuals choose not to take part in the FSP. In the participation studies, post-reform policy and its administration also are assumed to be factors in caseload decline. With respect to non-citizens, empirical data indicate relatively higher rates of Food Stamp caseload decline and more significant declines in participation rates than for citizens. For non-citizens, the literature suggests that welfare reform policy has affected participation directly through immigrant restrictions and indirectly through policy changes that discourage participation. However, the exact nature of these indirect effects is unclear.

Wallace and Blank (1999) found that Food Stamp caseload declines are affected by TANF political and program variables that have no direct policy linkage to the Food Stamp program. This leads to the speculation that part of the FSP decline could be due to 'demonstration effects' - "...whereby individuals who were actually unaffected by the waivers

nonetheless changed their behavior because of the strong message states were trying to send that they were going to 'get tough' on welfare recipients" (Wallace and Blank 1999, 11). This finding echoes the earlier work of economists such as Robert Moffitt which indicates that stigma and other transaction costs affect the willingness to utilize public assistance programs (e.g. Moffitt 1989; 1983). That is, the marginal value of public benefits is reduced by additional participation burdens.

Several post-reform studies have indicated that the transaction costs associated with Food Stamp program administration practices affect participation. For example, McConnell and Ponza's (1999) survey of Food Stamp recipients identified the cost of program participation (i.e., the time, money, and difficulty associated with application and recertification) as one of five major reasons individuals cited for nonparticipation. Using data from the National Survey of America's Families, Zedlewski and Gruber (2001) find that in 1999, 21 percent of former welfare recipients who also exited the FSP reported administrative problems as the reason. This compared to the 11 percent of former welfare recipients in 1994 who reported this as a reason for leaving the Food Stamp caseload.

The change in the Food Stamp recertification period is an additional program transaction cost that began after the implementation of welfare reform. During the latter 1990s, many states shortened the recertification period to reduce overpayment error rates. Recertification typically requires an office visit and extensive documentation by the recipient. The reduction in the certification period has been included in several post-reform Food Stamp studies (e.g., Currie and Grogger 2001; Kornfeld 2002; Mills et al. 2001; Rosenbaum 2000). Typically, these studies find that decreasing the length of the certification period increases the likelihood of leaving the FSP caseload. For example, Kornfeld (2000) shows that for multiple adults with children, a 10

percent increase in the frequency of recertification produces a caseload decline of about 2.3 percent for this group. Mills et al. (2001) explore the effects of stigma and other transaction costs using a model of Food Stamp program exits between 1997-1999 and conclude that exits among eligibles could be due to the relatively high burden of Food Stamp recertification procedures. Currie and Grogger (2001) also explore the impacts of stigma and transaction costs on declines in FSP participation rates using both administrative and CPS data. Their results indicate that increasing transaction costs lead to lower participation rates, especially for single household heads (Currie and Grogger 2001).

It appears, then, that at least a portion of the recent FSP caseload decline can be attributed to additional stigma and other transactions costs associated with program administration practices following welfare reform. To the extent this occurs, it is expected that the costs of program participation would have a greater impact on non-citizens than citizens. That is, in addition to the typical requirements of program participation, non-citizens have the additional burden of providing documentation on their immigration status. Additionally, beyond the stigma associated with the receipt of public assistance, non-citizens also are subject to stigma associated with immigration status. For instance, public charge laws for non-citizens can, in extreme cases, lead to deportation. Given these citizenship constraints associated with the receipt of public assistance, it is expected that non-citizens would be more sensitive to additional program participation requirements that affect all Food Stamp recipients such as a reduction in recertification intervals. As a corollary, it is expected that the additional burden of citizenship constraints would also affect non-citizens' response to economic conditions. That is, as the constraints of program participation increase, so too would the likelihood of not participating due to higher or rising income levels. In other words, their higher stigma and transactions costs

alongside a strengthened economy would cause non-citizens to differentially reassess the value of food assistance (e.g., USDA 2001).

It is difficult to hypothesize whether or not rural residence would differentially impact the response of non-citizens to increasing transaction costs. On the one hand, greater time or transportation constraints in rural areas should increase the burden of procedures such as recertification that require visits to local welfare offices. On the other hand, better rural administrative practices as described by McConnell and Ohls (2000) might reduce the time required to complete program procedures such as recertification. However, if rural recipients are more sensitive to program changes as suggested by the Currie and Grogger (2001) study, then an increase in program participation burdens would cause relatively larger reductions in the rural caseload. Yet, to the extent that a rural economic disadvantage exists (e.g., Weber and Duncan 2000), greater economic insecurity could make rural recipients less willing to forgo food assistance benefits in the face of higher participation burdens.

Based on the literature review, it is expected that non-citizens will be more responsive to changes in policy that affect the eligibility and participation rules for the Food Stamp program. It is also expected that, when other factors are accounted for, non-citizens will exit the caseload with lower levels of economic resources than citizens. It is difficult to predict how these tendencies might be affected by rural residence, but it is expected that non-citizens will tend to be more responsive to administrative policy requirements than citizens regardless of residential location. These propositions are explored through descriptive data and analysis which are described in the following section.

STUDY DESIGN

Data

The primary data are monthly client files for Food Stamp recipients in Texas. These files are created by the Texas Department of Human Services and made available to the Center for Demographic and Socioeconomic Research and Education in the Department of Rural Sociology at Texas A&M University. The files cover the period September 1995 through September 2001 and contain case- and client-level information on recipient demographic characteristics, socioeconomic resources, and program eligibility and participation information. Descriptive data were extracted for the single months of September 1995 and September 2001. Additional descriptive data include population data from the 2000 Census. The analytical model uses a longitudinal file of case heads and households that extends for a 72 month period from September 1995 through August 2001.

Study Area

The study area consists of the 254 counties in Texas. These include 58 counties classified as metropolitan and 196 counties classified as nonmetropolitan according to the standard definitions used by the U.S. Office of Management and Budget.

Methodology

The analysis is done using event history techniques with PROC PHREG in SAS. The models use the proportional hazard or Cox regression for the analysis. The hazard of a case exiting the caseload is the dependent variable. Allison (1995, 17) defines the hazard function as:

“...a dimensional quantity that has the form *number of events per interval of time*, which is why the hazard is sometimes called a *rate*.” The Efron (Efron 1977) method is used to handle ties that occur if two or more observations have identical event times. Four separate models are done for: all cases, citizen cases, non-citizen cases (and all dependents are non-citizens), and non-citizen cases (and at least one dependent is a citizen). Independent variables include:

| | |
|---------------------|--|
| Age | The age of the household head. |
| Dependents | Dummy variable with reference as no longer having dependent(s) less than 18 years of age at time of exit or censor. |
| Household Size | The number of recipients in a case. |
| Female | Dummy variable with Male as the reference. |
| Black | Dummy variable with Anglo as the reference. |
| Hispanic | Dummy variable with Anglo as the reference. |
| Other | Dummy variable with Anglo as the reference. |
| Education <9 | Dummy variable with High School degree or beyond as the reference. |
| Education 9-12 | Dummy variable with High School degree or beyond as the reference. |
| Citizenship | Dummy variable with citizen as the reference. |
| Income | The total monthly income plus the value of the Food Stamp allotment of the case divided by the number of recipients in the case. |
| Employment | Dummy variable with unemployed as the reference. |
| Certification | The number of months until the next case recertification. |
| Aid Type | Dummy variable with non-PA (i.e., no TANF benefits) as the reference. |
| Metropolitan Status | Dummy variable with metropolitan counties as the reference. |

In the event history analysis, dependents, income, and certification are modeled as time-varying and the other variables are measured at their 1995 values. Income and certification are

continuous variables. Dependents is a binary variable where cases that begin with a dependent less than 18 years of age but exit or are censored without having a dependent are coded as the reference.

The cases examined are a cross-sectional cohort from the September 1995 caseload. Due to processes of caseload selectivity over time, a cross-sectional cohort tends to have longer spell durations, lower education levels, and other characteristics associated with long-term welfare receipt (Coulton et al. 1996; Gleason et al. 1998). To minimize the effects of caseload selectivity, data restrictions are imposed to focus the analysis on the cases that are most likely to represent low-income, working families. Cases are restricted according to the following criteria: the case head is between 18 to 55 years of age; there is at least one dependent (i.e., less than 18 years of age) in the case; and the case receives no Supplemental Security Income (SSI). The unit of time in the analysis is a quarter (i.e., 3 months) and exits are counted when a case is not present in the caseload for two consecutive months.

RESULTS

Study Area

Tables 1 through 4 provide background data on the population of the study area. Table 1 shows that Texas experienced population growth during the 1990s in both its metropolitan and nonmetropolitan areas. However, the nonmetropolitan areas grew more slowly than the 22.8 percent experienced by the state as a whole. For example, nonmetropolitan adjacent areas grew by 13.8 percent and nonmetropolitan nonadjacent counties grew by 7.9 percent. These compare of growth rates of 20.5 percent for metropolitan central city counties and 45.0 percent for metropolitan suburban counties. A comparison of state level growth rates by race/ethnicity indicates that between 1990 and 2000, Anglos (i.e., non-Hispanic whites) had the lowest rate at 7.6 percent while Blacks, Hispanics and Others (non-Hispanics that are not White or Black) grew at rates of 22.5, 53.7, and 81.2 percent respectively. Non-Anglo minority population growth was pervasive and exceeded that for Anglos in all four county types.

The race/ethnicity diversity of the state is apparent in panel A of Table 2. The 11.1 million Anglos in Texas represent 53.1 percent of the state's 20.9 million population with Blacks representing 11.6 percent, Hispanics 32.0 percent and Others 3.3 percent. As such, almost one half of the state's population is comprised of minority populations. Although minority populations tend to be more concentrated in central city areas, these groups also comprise about 35 percent of the state's nonmetropolitan population. Panel B of Table 2 indicates that Anglos are relatively more concentrated in nonmetropolitan areas than non-Anglo race/ethnicity groups, with 18.1 percent living in either nonmetropolitan nonadjacent or nonmetropolitan nonadjacent counties. This compares to 10.8 percent of the Black population, 12.9 percent of Hispanics, and 4.2 percent of the Other group.

Texas has a relatively large foreign born population. Table 3 shows that in 2000, 13.9 percent of the state's population was born outside of the United States and 9.5 percent of its population was comprised of non-citizens. Texas' non-citizens tend to be most concentrated in its metropolitan central city counties, where 11.7 percent of the population or more than one in ten people are non-citizens. The 5.3 percent proportion of non-citizens in nonmetropolitan nonadjacent counties is the same as that for the metropolitan suburban counties and nonmetropolitan adjacent counties have the smallest concentration at 4.5 percent.

Table 4 presents the 1999 poverty rates for citizens and non-citizens by metropolitan area. Three general patterns are apparent. First, with the exception of the suburban counties, the poverty rate for native born persons is less than that for either naturalized citizens or non-citizens. Secondly, for all citizenship categories, poverty rates are highest in the nonmetropolitan counties. Thirdly, non-citizens have the highest poverty rates regardless of their location. For the native born, poverty is highest in the nonmetropolitan nonadjacent counties where 17.9 percent had 1999 incomes at or below the poverty level. For both naturalized citizens and non-citizens, poverty is highest in the nonmetropolitan adjacent counties with rates of 27.7 and 37.3 percent respectively.

In summary, during the 1990s, Texas experienced significant population growth fueled in large part by its non-Anglo minority groups. This growth has occurred in both urban and rural areas and is producing a population that is more diverse in its race/ethnicity origins. In particular, the Hispanic population, which numbered 4.3 million in 1990, experienced a 1990-2000 growth rate of 53.7 percent, growing to 6.7 million in 2000. In rural counties, the 1990-2000 Hispanic growth rate was 31.1 percent, an increase of 203,969 persons. Historically, Hispanics have had fewer socioeconomic resources than Anglos in Texas and the state's non-

citizens are predominantly of Mexican origin. Although non-citizens comprise only 5.4 percent of the rural population, the poverty rate for non-citizens in nonmetropolitan counties is 36.0 percent. Consequently, because nonmetropolitan counties have the state's highest poverty rates, public assistance such as the Food Stamp program is especially important for the well-being of the state's rural non-citizens and other low-income groups.

Food Stamp Caseload

Table 5 uses data from September 1995 and September 2001 to present information of the characteristics of eligible Food Stamp caseload household heads before and after welfare reform. Characteristics are presented by citizenship status for the entire caseload as well as the metropolitan and nonmetropolitan counties of the state. Caseload decline occurred both for citizens and non-citizens across all county types. For all cases, the number of qualified citizen household heads fell from 747,474 in 1995 to 409,374 in 2001 a decline of 45.2 percent. The number of qualified non-citizen household heads fell more dramatically from 111,007 to 31,114, a decrease of 72.0 percent. For both groups, decline was greater in metropolitan than nonmetropolitan counties. For citizens, urban decline was 285,995 or 47.3 percent compared to a rural decline of 52,051 or 36.6 percent. Non-citizen cases dropped by 52,051, or 72.9 percent, in urban areas versus 8,645 or 65.2 percent in rural counties. The dramatic differences in the citizen and non-citizen declines reflect the eligibility changes requiring citizenship which Texas implemented in September 1997.

The data in Table 5 show a number of demographic differences in citizen and non-citizen characteristics. Both the pre- and post-reform non-citizens tend to be more middle-aged than citizens. For example, for the entire caseload, 68.0 percent of the citizen caseload heads are

between the ages of 25 and 64 in 1995. For non-citizens, 79.9 percent are in this age group in 1995. By 2001, the share of citizen cases in the 25 through 64 years old group increased to 69.6 percent while that for non-citizens declined to 71.8 percent. The non-citizen decline in the middle-age group reflects the higher concentration of elderly that occurred after welfare reform. For example, in 1995, 11.4 percent of the non-citizen cases had household heads 65 years of age or older. By 2001, the elderly represented 24.1 percent of the non-citizen case heads. This aging of the caseload is probably due to the restoration of benefits eligibility for elderly non-citizens. These general age patterns for citizens and non-citizens hold across urban and rural counties.

Another demographic difference between citizen and non-citizen Food Stamp household heads is household size. Non-citizens tend to have larger households. For example, for the entire caseload in 1995, 31.1 percent of citizen cases were single member households. This compares to 17.6 percent for non-citizens. Similarly, while only 4.9 percent of citizen households in 1995 had six or more members, the percentage for non-citizen cases was 10.9. This pattern of larger non-citizen cases occurs across urban and rural types both before and after welfare reform. For non-citizens, households tend to be larger in nonmetropolitan areas with 41.3 percent of cases having four or more members compared to 36.7 percent for non-citizen cases in metropolitan areas. Although the citizen proportions of single member cases declined between 1995 and 2001, the relative numbers of non-citizen single member cases increased. For example, single member non-citizen cases increased from 18.1 percent to 26.7 percent in metropolitan counties and grew from 13.3 percent to 19.5 percent of the caseload in nonmetropolitan counties. Presumably, the growth in single person non-citizen cases also reflects the increase in elderly households following the restoration of benefits to this group.

Race/ethnicity composition shows strong contrasts between citizen and non-citizen Food

Stamp cases. For the entire caseload, the proportion Anglo is around 30.0 percent in both 1995 and 2000. By contrast, the Anglo share of the non-citizen caseload is less than five percent in both years. Hispanics comprise 36.8 and 41.9 percent of the citizen caseloads in 1995 and 2001. However, among the non-citizen caseloads, the proportion Hispanic is almost 90 percent in both years. In the non-citizen caseload, Hispanic concentration is greatest in the nonmetropolitan counties where it exceeds 96 percent in 1995 and 2001.

Education is another characteristic that distinguishes the non-citizen cases. Both before and after welfare reform, the proportion of non-citizen case heads with less than a 9th grade education is 66 percent or greater for the entire caseload. This compares to about 23 percent for the citizen caseload. Nonmetropolitan counties have the highest shares of non-citizens with less than a 9th grade education, with the percentage exceeding 75 percent in both 1995 and 2001. For both citizens and non-citizens, the 2001 distribution of educational attainment levels is very similar to that for 1995.

Given this education differential, it is somewhat surprising to find that non-citizen income tends to be higher than citizen income. The percentage of non-citizen households with monthly incomes of more than \$1,000 is higher than that for citizens both before and after welfare reform and across both metropolitan and nonmetropolitan areas. For example, in 2001 for the entire caseload, 27.1 percent of non-citizens have household incomes of \$1,000 or more compared to 18.2 percent of citizen cases. Presumably, this income differential reflects the non-citizens' larger household sizes and the greater potential for multiple workers in the household. Non-citizens in nonmetropolitan counties tend to be relatively better off with 27.9 percent having monthly income of \$1,000 or more in 2001 compared to 27.0 percent in metropolitan counties. The relatively higher incomes of rural non-citizens could be due to their larger households and

the engagement of multiple family members in agriculture-related employment.

The employment data in Table 5 show that non-citizens are more likely to be employed than citizen cases before and after welfare reform and across both urban and rural counties. For example, about 20 percent of non-citizen case heads are employed while only about 15 percent of the citizen cases are employed. In metropolitan areas, the percentage of non-citizen cases employed fell from 22.6 percent in 1995 to 20.8 percent in 2001. This could be due to the relative increase in non-citizen elderly cases. However, the percentage employed increased in the nonmetropolitan areas from 17.8 percent to 20.7 percent. Thus, while non-citizen employment rates were higher in urban areas before welfare reform, the rates are now equivalent in urban and rural areas.

Table 5 also indicates contrasts in the program eligibility and participation characteristics of citizens and non-citizens. The variable service level is assigned to case heads to indicate the state's assessment of employability. Service level 1 indicates that a client is likely to obtain above minimum wage employment within 6 months without intensive case management. Service level 2 means that a client probably can obtain above minimum wage employment within 6 months if intensive case management services are provided. Service level 3 indicates that the client has a severe impediment to employment. Non-citizens have a larger proportion classified at service level 3. For 1995 and 2001, more than 50 percent of non-citizens are in service level 3 across both urban and rural areas. For citizens, there were 33.0 percent service level 3 cases in 1995 and 24.9 percent in 2001. In both 1995 and 2001, nonmetropolitan areas have the highest proportions of non-citizen cases classified as service level 3. For both citizens and non-citizens, the relative numbers in the top job readiness category, service level 1, increased in the post-reform period while the relative numbers in service level 3 declined. This

suggests that the employability of the caseload increased in the post-reform era even though education levels remained relatively unchanged.

Another program variable is the certification interval which indicates the number of months between mandatory recertification. Recertification is required for the continuation of Food Stamp benefits and ranges from one to 12 months in Texas. The proportion of cases with 3 months or less certification intervals increased between 1995-2001 for both citizens and non-citizens and this occurred in both urban and rural areas. For non-citizens in nonmetropolitan counties, the three months or less certification increased from 20.9 percent to 31.5 percent. With the exception of nonmetropolitan areas in 1995, relatively fewer non-citizens than citizens have the 3 months or less certification interval. In 1995, the share of non-citizens with the three month or less certification was higher in metropolitan counties, with 24.7 percent of non-citizens in urban areas versus 20.9 percent in rural areas having the short certification period. By 2001, this pattern had reversed with rural non-citizens having the highest share at 31.5 percent compared to 29.9 percent in the urban areas. Typically, the elderly automatically receive certification periods of six months or more. As such, the relative increase in the shorter certification periods would have its greatest impact on the working age population.

The aid type variable in Table 5 indicates that non-citizens are less likely to receive public assistance (i.e., TANF) than citizens. For example, in nonmetropolitan counties in 1995, 12.4 percent of non-citizens versus 21.1 percent of citizens received public assistance. For the rural counties in 2001, 7.4 percent of non-citizen cases and 15.2 percent of citizen cases received public assistance. Although the decline in public assistance Food Stamp cases is pervasive, following welfare reform, in 2001 the rural counties had larger shares of their cases receiving TANF than the urban counties, reversing the pattern of 1995. Because TANF typically is

restricted to single parent household, the smaller proportions of non-citizens in the public assistance category could reflect their larger household sizes. On the other hand, this pattern could also reflect the higher concentrations of the elderly in the non-citizen caseload following welfare reform.

In summary, both before and after welfare reform, citizen and non-citizen case heads are distinguished by a number of demographic and program participation characteristics. Most apparent are the non-citizens' older caseload, larger households, greater concentration of Hispanics, lower levels of education, higher incomes, higher employment rates, lower levels of job readiness, lower proportions with short recertification intervals, and fewer cases receiving TANF. Taken as a whole, the descriptive data suggest that, as a group, the non-citizen Food Stamp caseload in Texas reflects the characteristics of the 'working poor'. This is especially apparent in the rural areas where almost 12 percent of non-citizens had 6 or more members in 2001 and one out of five cases was employed.

Analysis

Table 6 presents the results of the event history analysis of caseload exits. The first column presents statistics for all cases during the 1995-2001 time period, the second column has citizen findings, the third column presents findings for households where every member a non-citizen (i.e., all non-citizen), and the fourth column has the results for non-citizen case heads in which at least one household member is a citizen (i.e., mixed non-citizen). For dummy variables, the hazard ratio tells the ratio of the indicator variable's hazard of exiting to the reference variable's hazard of exiting. For the continuous independent variables age, household size, income, and certification, the results can be interpreted as follows: $100 * (\text{hazard ratio} - 1)$ equals the percentage change in the hazard for a one unit change in the independent variable.

In all models, the dependent variable is the hazard of a caseload exit during the six year period. The models capture the first spell of those cases receiving Food Stamp benefits in September 1995. These cases are restricted to those cases having a case head between 18 and 55 years old, at least one dependent less than 18 years of age, and that receive no Supplemental Security Income (SSI). In the model for all cases, the results for the citizenship variable indicate that, when the other covariates are controlled, the exit hazard for non-citizens is about 1.25 times greater than that for citizens.

All four models indicate that as the age of the household head increases, the likelihood of a caseload exit declines. The effect is strongest for citizen cases where an increase of one year in the age of the case head reduces the hazard of exit by about 2.8 percent. The effect is least for mixed non-citizen cases where the hazard is reduced by 1.6 percent for each year of age. For the cases where all members are non-citizens, the exit hazard is reduced by 2.3 percent for each additional year of age for the household head.

With the dependents variable, all of the models indicate that, when compared to cases which no longer have a dependent, cases with at least one dependent less than 18 years old have a greater hazard of exit. This effect is strongest within the mixed non-citizen cases where those with a dependent have an exit hazard 1.77 times greater than those who began in September 1995 with a dependent but no longer have dependents in the case. This effect is least for citizen cases where those with dependents have an exit hazard about 1.67 times greater than that for cases which no longer have dependents.

As household size increases, the exit hazard declines. This effect is strongest for citizen cases, where an increase of one household member decreases the exit hazard by 11.3 percent. For the all non-citizens cases, each additional household member reduces the exit hazard by 9.0

percent. Household size has its smallest impact on the mixed non-citizens cases where each additional person on the case decreases the exit hazard by 7.6 percent.

Being a female head reduces the hazard of exit. For the entire caseload, the hazard of female heads exiting is about 77 percent compared to that for males. The effect is most pronounced in citizen cases where females are about 75 percent as likely to have an exit as males. The sex of the case head has the least impact for mixed non-citizen cases where females are 92.4 percent as likely to exit as their male counterparts. For the all non-citizen case, females are 86.7 percent as likely to exit as males.

Being a member of a non-Anglo group has mixed effects on the exit hazard. For citizens, Hispanic heads are about 88 percent as likely to exit as Anglo heads. Black citizen case heads are 76.1 percent as likely to exit as Anglos but Other citizen heads are 1.14 percent more likely to exit than Anglo heads. In the all non-citizen cases, only the Hispanic variable is significant and Hispanic non-citizen heads are 92.1 percent as likely to have an exit hazard as Anglo non-citizen cases. None of the race/ethnicity variables are significant for the mixed non-citizen cases.

The results for the less than 9th grade education level indicate that those with lower levels of education are less likely than those with higher levels of education to have an exit. In all models, those in the lowest education level (less than 9th grade) are the least likely to exit when compared to those with a high school education or beyond. Also, for all cases, those with a 9th to 12th grade education with no diploma are the next least likely group to have an exit. The relative impacts of education are least for the mixed non-citizen cases where the less than 9th grade attainment level is about 93.9 percent as likely to have an exit as mixed non-citizen cases where the head has a high school education or beyond. For mixed non-citizen cases with a 9th to 12th grade attainment level, the exit hazard is 94.4 percent of that for cases with a high school

education and beyond. Education differentials have the greatest impact in citizen cases where the less than 9th grade cases are 87.5 percent as likely to exit as the high school and beyond cases. For citizen cases with 9th to 12th grade attainment, cases are 90.3 percent as likely to have an exit as the high school and beyond cases.

The results for the income variable indicate that higher levels of income increase the hazard of exit. Though the results for the income variable are significant for all models, the magnitude of the effects is small. For all models, a one unit increase in monthly income per person in the case produces a 0.1 percent increase in the exit hazard.

The effects of being employed are unexpected. In all models, being employed reduces the hazard of exit. Employed citizen heads are 89.7 percent as likely to have an exit hazard as the unemployed citizen heads. For the all non-citizens cases, employment reduces the exit hazard by 91.0 percent. The effect is least for the mixed non-citizen cases where employed case heads are 93.6 percent as likely to exit as unemployed mixed non-citizen case heads.

An increase in certification months reduces the exit hazard. The effect is strongest for citizens where a 1 month increase in the certification period reduces the hazard of exit by 5.7 percent. For the all non-citizens cases, a one month increase in certification time reduces the exit hazard by 2.2 percent. The effect is weakest for the mixed non-citizen cases where each additional month of certification reduced the exit hazard by 1.4 percent.

Receiving public assistance reduces the exit hazard for citizen cases, but the effect is small. For citizen cases, those receiving TANF are 99.1 percent as likely to exit as those not receiving public assistance. The variable is not significant for the all non-citizen cases. For the mixed non-citizen cases, the effect is strongest where those receiving TANF are 87.6 percent as likely to have an exit as those mixed non-citizen cases that have no public assistance.

Metropolitan status is significant for the citizen and the all non-citizen cases but not for mixed non-citizen cases. For citizens, residence in a nonmetropolitan county reduces the hazard of exit by 98.4 percent compared to citizen cases residing in metropolitan counties. In the all non-citizen cases, rural cases are 94.8 percent as likely to have an exit hazard as all non-citizen cases in urban areas.

In summary, the models show that, on the whole, non-citizens have an exit hazard 1.25 times greater than that for citizens. For all cases, older case heads are less likely to exit, with the effect being strongest for citizen cases and weakest for mixed non-citizen cases. Cases that no longer have a dependent are less likely to exit than those cases which continue to have a dependent and this effect is greatest for mixed non-citizen cases. Larger households are less likely to exit. For the whole caseload, each additional case member reduces the exit hazard by 10.8 percent. This effect is weakest for mixed non-citizen cases where each additional person reduces the exit hazard by 7.6 percent. Female heads are less likely to exit than male heads and this effect is most apparent in citizen cases where females are 75 percent as likely to exit as males. For the citizen caseload, Hispanic and Black case heads are less likely to exit than Anglo case heads but case heads that are members of the Other race/ethnicity group are more likely to exit than Anglos. For the all non-citizen cases, Hispanics are less likely to exit than Anglo non-citizens. In the mixed non-citizen case model, the race/ethnicity of the case head is not a significant variable. Lower levels of human capital in the form of educational attainment reduce the exit hazard for all cases. The effects of education are weakest for mixed non-citizen cases and greatest for citizen cases. Higher levels of income per case member increase the exit hazard but the effect is small. In all four models, a one unit change in the income per case member increases the exit hazard by 0.1 percent. Employed case heads are less likely to exit than

unemployed case heads. The effect of employment is greatest for citizen case heads and has the least effect for mixed non-citizen case heads. Longer certification periods reduce the exit hazard in all four models. The effect of a longer certification period is greatest for citizen cases and least for mixed non-citizen cases. Receiving TANF benefits reduces the exit hazard for citizen cases and mixed non-citizen cases but is not significant in the model for cases comprised entirely of non-citizens. Nonmetropolitan residence reduces the hazard of exit for citizen cases and the all non-citizen cases but this variable is not significant in the model for mixed non-citizens.

DISCUSSION

The descriptive data indicated some distinctions in the composition of the non-citizen Food Stamp caseloads. Non-citizen cases tend to have older case heads, larger households, more Hispanics, lower levels of education and job readiness, higher employment rates, and higher incomes. Some of these characteristics are associated with the exit patterns of non-citizens. For example, older case heads and larger households reduce the hazard of exit for non-citizens. Also, lower levels of human capital in the form of educational attainment tend to reduce the exit hazard for non-citizens and higher incomes increase the exit hazard for non-citizens. In these instances, the analysis reflects expected caseload patterns.

However, some of the results of the analysis are unexpected. For example, the exit hazards for citizens and non-citizens are reduced by employment. The data used in the analysis provide no information on client characteristics after an exit. It is possible that many of the exits are by unemployed individuals into new employment. If so, this could indicate that the employed households in the caseload have stable, low paying employment and incorporate Food Stamp utilization as a long-term survival strategy. Also unexpected was the finding that those with dependents under 18 years of age still in the case are more likely to exit than those who no longer have dependents in the case. This could be due to a greater number of employment based exits among those with dependent children.

It was hypothesized earlier in the paper that non-citizens would be more sensitive to program requirements such as a reduction in certification months. The analysis shows the opposite, with citizens being more responsive to the length of the recertification interval. Contrary to the hypothesis of greater sensitivity to program burdens among non-citizens, the finding could suggest that immigrant verification processes have led to coping strategies which

minimize the transactions costs of program participation. Again, this could point to the existence of more stable employment patterns for non-citizens in which Food Stamp receipt is a major component.

Although the overall exit patterns for the all non-citizen and mixed non-citizen cases are quite similar, there are some differences in the responses of these two groups. While older case heads and larger households reduce the exit hazard for both types of cases, the effects are larger for the all non-citizens cases. Similarly, the increase in certification months reduces the exit hazard for the all non-citizen cases more than it does for the mixed non-citizen cases. Also, human capital differences have a relatively lower impact on mixed non-citizen cases than for the all non-citizen cases. Although the employed are less likely to exit than the unemployed in both non-citizen groups, the effect is stronger among the all non-citizen cases. Nonmetropolitan residence reduces the exit hazard for both groups but the variable is not significant in the model for mixed non-citizen cases. In general, then, the exit patterns of mixed non-citizen cases are less differentiated according to demographic characteristics, less affected by program requirements, and less affected by place of residence.

Much of the non-citizen caseload decline after welfare reform has occurred because eligibility restrictions greatly reduced the number of non-citizens entering the caseload. Consequently, the non-citizens remaining in the caseload after the imposition of welfare reform are not representative of the universe of lower-income non-citizens. Nonetheless, the analysis suggests that non-citizen cases during the 1995-2001 time period are not that different from citizens in terms of their exit patterns. The results also suggest non-citizen caseload patterns that are consistent with the concept of 'working poor' and that Food Stamp receipt is an essential element in sustaining low-wage employment. At least for the Food Stamp program, then, it

appears that welfare dependency is not based on immigrant status but, rather, represents a coping strategy for low-income households regardless of their nativity. Future research should evaluate how regional variations in program administrative practices and local economic conditions affect the participation of citizen and non-citizen households.

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Table 1: Texas Population 1990 and 2000 Percent Change in Population from 1990 to 2000 by Race/Ethnicity and Metropolitan Status

| Area | 1990 | 2000 | Numerical Change | Percent Change |
|-----------------------------|-----------------|------------|------------------|----------------|
| | <u>Total</u> | | | |
| State of Texas | 16,986,510 | 20,851,820 | 3,865,310 | 22.8 |
| Metropolitan Central City | 11,615,291 | 13,993,705 | 2,378,414 | 20.5 |
| Metropolitan Suburban | 2,550,367 | 3,698,175 | 1,147,808 | 45.0 |
| Nonmetropolitan Adjacent | 1,962,353 | 2,234,027 | 271,674 | 13.8 |
| Nonmetropolitan Nonadjacent | 858,499 | 925,913 | 67,414 | 7.9 |
| | <u>Anglo</u> | | | |
| State of Texas | 10,291,680 | 11,074,716 | 783,036 | 7.6 |
| Metropolitan Central City | 6,399,334 | 6,375,341 | -23,993 | -0.4 |
| Metropolitan Suburban | 1,984,490 | 2,690,721 | 706,231 | 35.6 |
| Nonmetropolitan Adjacent | 1,311,053 | 1,409,461 | 98,408 | 7.5 |
| Nonmetropolitan Nonadjacent | 596,803 | 599,193 | 2,390 | 0.4 |
| | <u>Black</u> | | | |
| State of Texas | 1,976,360 | 2,421,653 | 445,293 | 22.5 |
| Metropolitan Central City | 1,533,749 | 1,868,817 | 335,068 | 21.9 |
| Metropolitan Suburban | 206,948 | 290,318 | 83,370 | 40.3 |
| Nonmetropolitan Adjacent | 174,875 | 194,202 | 19,327 | 11.1 |
| Nonmetropolitan Nonadjacent | 60,788 | 68,316 | 7,528 | 12.4 |
| | <u>Hispanic</u> | | | |
| State of Texas | 4,339,905 | 6,669,666 | 2,329,761 | 53.7 |
| Metropolitan Central City | 3,375,142 | 5,233,081 | 1,857,939 | 55.1 |
| Metropolitan Suburban | 308,852 | 576,705 | 267,853 | 86.7 |
| Nonmetropolitan Adjacent | 460,707 | 609,264 | 148,557 | 32.3 |
| Nonmetropolitan Nonadjacent | 195,204 | 250,616 | 55,412 | 28.4 |
| | <u>Other</u> | | | |
| State of Texas | 378,565 | 685,785 | 307,220 | 81.2 |
| Metropolitan Central City | 307,066 | 516,466 | 209,400 | 68.2 |
| Metropolitan Suburban | 50,077 | 140,431 | 90,354 | 180.4 |
| Nonmetropolitan Adjacent | 15,718 | 21,100 | 5,382 | 34.2 |
| Nonmetropolitan Nonadjacent | 5,704 | 7,788 | 2,084 | 36.5 |

Source: U.S. Census Bureau 2000.

Table 2: Percent Distribution of Texas Population by Race/Ethnicity Group and by Metropolitan Status, 2000

| Race/Ethnicity Group | State of Texas | (A) | | | |
|----------------------|----------------|---------------------------|-----------------------|--------------------------|-----------------------------|
| | | Metropolitan Central City | Metropolitan Suburban | Nonmetropolitan Adjacent | Nonmetropolitan Nonadjacent |
| Anglo | 53.1 | 45.6 | 72.8 | 63.1 | 64.7 |
| Black | 11.6 | 13.4 | 7.9 | 8.7 | 7.4 |
| Hispanic | 32.0 | 37.4 | 15.6 | 27.3 | 27.1 |
| Other | 3.3 | 3.7 | 3.8 | 0.9 | 0.8 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

| Race/Ethnicity Group | State of Texas | (B) | | | |
|----------------------|----------------|---------------------------|-----------------------|--------------------------|-----------------------------|
| | | Metropolitan Central City | Metropolitan Suburban | Nonmetropolitan Adjacent | Nonmetropolitan Nonadjacent |
| Anglo | 100.0 | 57.6 | 24.3 | 12.7 | 5.4 |
| Black | 100.0 | 77.2 | 12.0 | 8.0 | 2.8 |
| Hispanic | 100.0 | 78.5 | 8.6 | 9.1 | 3.8 |
| Other | 100.0 | 75.3 | 20.5 | 3.1 | 1.1 |
| Total | 100.0 | 67.1 | 17.7 | 10.7 | 4.4 |

Source: U.S. Census Bureau 2000.

Table 3: Texas Population and Percent Total Foreign Born and Non-Citizen Foreign Born by Metropolitan Status, 2000

| <u>Area</u> | <u>Total Population</u> | <u>Total Foreign Born</u> | <u>Percent of Total Population</u> | <u>Non-Citizen Foreign Born</u> | <u>Percent of Total Population</u> |
|------------------------------------|-------------------------|---------------------------|------------------------------------|---------------------------------|------------------------------------|
| State of Texas | 20,851,820 | 2,899,642 | 13.9 | 1,985,316 | 9.5 |
| Metropolitan Central City | 13,993,705 | 2,361,594 | 16.9 | 1,639,818 | 11.7 |
| Metropolitan Suburb | 3,698,175 | 311,607 | 8.4 | 195,315 | 5.3 |
| Nonmetropolitan Adjacent | 2,234,027 | 152,693 | 6.8 | 101,030 | 4.5 |
| <u>Nonmetropolitan Nonadjacent</u> | <u>925,913</u> | <u>73,748</u> | <u>8.0</u> | <u>49,153</u> | <u>5.3</u> |

Source: U.S. Census Bureau 2002a.

Table 4: Texas Population and Percent in Poverty in 1999 by Citizenship Status and by Metropolitan Status, 2000

| Area | Total Population* | Percent in Poverty | Native Born | Percent in Poverty | Naturalized Citizen | Percent in Poverty | Not a Citizen | Percent in Poverty |
|-----------------------------|----------------------|--------------------------|----------------|--------------------------|------------------------|--------------------------|------------------|--------------------------|
| State of Texas | 20,287,300 | 15.4 | 17,410,610 | 13.9 | 909,216 | 15.8 | 1,967,474 | 28.2 |
| Metropolitan Central City | 13,698,443 | 16.4 | 11,352,156 | 14.7 | 718,160 | 16.0 | 1,628,127 | 28.6 |
| Metropolitan Suburb | 3,599,891 | 8.8 | 3,292,034 | 8.3 | 115,572 | 7.8 | 192,285 | 18.8 |
| Nonmetropolitan Adjacent | 2,110,758 | 18.4 | 1,960,031 | 17.2 | 51,175 | 27.7 | 99,552 | 37.3 |
| Nonmetropolitan Nonadjacent | 878,208 | 18.9 | 806,389 | 17.9 | 24,309 | 23.6 | 47,510 | 33.3 |

Source: U.S. Census Bureau 2002b.

*Total population for whom poverty Status is determined.

Table 5: Selected Characteristics for Eligible Texas Food Stamp Caseload Household Heads in 1995 and 2001 by Metropolitan Status and by Percent Distribution, Number of Cases, and Number of Individuals

| Characteristic | All | | | | Metropolitan | | | | Nonmetropolitan | | | |
|------------------------|---------|---------|-------------|--------|--------------|---------|-------------|--------|-----------------|--------|-------------|-------|
| | Citizen | | Non-Citizen | | Citizen | | Non-Citizen | | Citizen | | Non-Citizen | |
| | 1995 | 2001 | 1995 | 2001 | 1995 | 2001 | 1995 | 2001 | 1995 | 2001 | 1995 | 2001 |
| Age | | | | | | | | | | | | |
| <25 | 20.6 | 18.1 | 8.6 | 4.1 | 21.2 | 18.5 | 8.6 | 4.1 | 18.0 | 16.8 | 9.2 | 4.2 |
| 25-44 | 50.3 | 48.6 | 55.5 | 42.8 | 51.5 | 49.5 | 55.9 | 42.8 | 45.1 | 45.3 | 52.9 | 42.8 |
| 45-64 | 17.7 | 21.0 | 24.4 | 29.0 | 17.2 | 20.6 | 24.2 | 28.6 | 19.8 | 22.5 | 26.1 | 31.2 |
| 65+ | 11.4 | 12.3 | 11.4 | 24.1 | 10.0 | 11.4 | 11.4 | 24.5 | 17.1 | 15.4 | 11.8 | 21.8 |
| Number of Cases | 747,474 | 409,374 | 111,007 | 31,114 | 605,255 | 319,206 | 97,747 | 26,499 | 142,219 | 90,168 | 13,260 | 4,615 |
| Household Size | | | | | | | | | | | | |
| 1 | 31.1 | 29.8 | 17.6 | 25.7 | 31.1 | 29.5 | 18.1 | 26.7 | 31.1 | 30.9 | 13.3 | 19.5 |
| 2 | 22.6 | 20.5 | 20.8 | 21.2 | 22.6 | 20.4 | 20.9 | 20.9 | 22.2 | 20.9 | 20.5 | 23.3 |
| 3 | 19.8 | 20.3 | 19.2 | 15.7 | 20.1 | 20.4 | 19.3 | 15.7 | 18.6 | 19.8 | 18.4 | 15.9 |
| 4 | 14.2 | 15.6 | 18.2 | 15.4 | 14.2 | 15.8 | 18.1 | 15.1 | 14.3 | 14.8 | 18.9 | 16.8 |
| 5 | 7.4 | 8.3 | 13.3 | 11.9 | 7.2 | 8.4 | 13.0 | 11.8 | 8.0 | 8.0 | 15.3 | 12.7 |
| 6 or more | 4.9 | 5.5 | 10.9 | 10.1 | 4.7 | 5.5 | 10.6 | 9.8 | 5.9 | 5.5 | 13.6 | 11.8 |
| Number of Cases | 747,474 | 409,374 | 111,007 | 31,114 | 605,255 | 319,206 | 97,747 | 26,499 | 142,219 | 90,168 | 13,260 | 4,615 |
| Race/Ethnicity | | | | | | | | | | | | |
| Anglo | 31.3 | 29.5 | 2.8 | 4.4 | 28.8 | 26.0 | 2.8 | 4.6 | 41.6 | 41.8 | 2.3 | 3.3 |
| Black | 30.9 | 27.4 | 1.2 | 0.8 | 33.2 | 29.6 | 1.4 | 0.9 | 21.4 | 19.7 | 0.1 | 0.1 |
| Hispanic | 36.8 | 41.9 | 89.4 | 89.3 | 36.8 | 43.0 | 88.4 | 88.2 | 36.5 | 38.1 | 96.4 | 96.0 |
| Other | 1.0 | 1.2 | 6.6 | 5.5 | 1.2 | 1.4 | 7.3 | 6.3 | 0.4 | 0.4 | 1.1 | 0.6 |
| Number of Cases | 747,474 | 409,374 | 111,007 | 31,114 | 605,255 | 319,206 | 97,747 | 26,499 | 142,219 | 90,168 | 13,260 | 4,615 |
| Education Level | | | | | | | | | | | | |
| <9 | 23.4 | 23.5 | 66.0 | 68.8 | 21.8 | 22.7 | 64.7 | 67.6 | 30.4 | 26.5 | 76.0 | 75.5 |
| 9-12 | 27.0 | 27.2 | 15.2 | 15.1 | 27.1 | 27.4 | 15.6 | 15.3 | 26.4 | 26.5 | 13.0 | 13.9 |
| High School | 38.1 | 36.7 | 14.9 | 12.7 | 38.9 | 36.8 | 15.8 | 13.4 | 34.5 | 36.3 | 8.8 | 8.5 |
| Some College | 10.7 | 11.8 | 3.1 | 2.9 | 11.3 | 12.3 | 3.3 | 3.1 | 8.2 | 10.2 | 2.0 | 2.0 |
| College | 0.8 | 0.8 | 0.6 | 0.5 | 0.9 | 0.8 | 0.7 | 0.6 | 0.5 | 0.5 | 0.3 | 0.1 |
| Number of Cases | 747,474 | 409,374 | 111,007 | 31,114 | 605,255 | 319,206 | 97,747 | 26,499 | 142,219 | 90,168 | 13,260 | 4,615 |

(continues)

Table 5: Continued

| Characteristic | All | | | | Metropolitan | | | | Nonmetropolitan | | | |
|------------------------|---------|---------|-------------|--------|--------------|---------|-------------|--------|-----------------|--------|-------------|-------|
| | Citizen | | Non-Citizen | | Citizen | | Non-Citizen | | Citizen | | Non-Citizen | |
| | 1995 | 2001 | 1995 | 2001 | 1995 | 2001 | 1995 | 2001 | 1995 | 2001 | 1995 | 2001 |
| Total Monthly Income | | | | | | | | | | | | |
| \$0-99 | 20.0 | 18.4 | 14.5 | 10.4 | 21.2 | 19.6 | 14.7 | 10.7 | 15.2 | 14.1 | 13.0 | 8.8 |
| \$100-499 | 43.2 | 24.5 | 35.0 | 17.7 | 43.0 | 24.7 | 34.9 | 17.8 | 43.8 | 24.0 | 35.3 | 17.4 |
| \$500-999 | 25.9 | 38.9 | 31.3 | 44.7 | 25.1 | 37.6 | 31.1 | 44.5 | 29.1 | 43.4 | 32.3 | 45.9 |
| \$1000-1499 | 9.0 | 13.4 | 15.1 | 18.2 | 8.8 | 13.4 | 15.2 | 18.1 | 9.6 | 13.5 | 14.7 | 18.5 |
| \$1500 and Over | 1.9 | 4.8 | 4.2 | 8.9 | 1.8 | 4.7 | 4.1 | 8.9 | 2.3 | 5.0 | 4.7 | 9.4 |
| Number of Cases | 747,474 | 409,374 | 111,007 | 31,114 | 605,255 | 319,206 | 97,747 | 26,499 | 142,219 | 90,168 | 13,260 | 4,615 |
| Employment | | | | | | | | | | | | |
| Unemployed | 84.2 | 84.5 | 78.0 | 79.2 | 84.0 | 84.8 | 77.4 | 79.2 | 85.0 | 83.4 | 82.2 | 79.3 |
| Employed | 15.8 | 15.5 | 22.0 | 20.8 | 16.0 | 15.2 | 22.6 | 20.8 | 15.0 | 16.6 | 17.8 | 20.7 |
| Number of Cases | 747,474 | 409,374 | 111,007 | 31,114 | 605,255 | 319,206 | 97,747 | 26,499 | 142,219 | 90,168 | 13,260 | 4,615 |
| Service Level | | | | | | | | | | | | |
| 1 | 46.5 | 54.1 | 26.4 | 30.9 | 47.7 | 54.2 | 27.4 | 32.3 | 40.6 | 53.4 | 18.8 | 23.6 |
| 2 | 20.5 | 21.1 | 12.6 | 16.8 | 20.4 | 21.1 | 12.8 | 16.6 | 21.0 | 21.0 | 11.3 | 17.8 |
| 3 | 33.0 | 24.9 | 61.0 | 52.3 | 31.9 | 24.7 | 59.8 | 51.1 | 38.4 | 25.6 | 69.9 | 58.6 |
| Number of Cases | 413,462 | 250,769 | 50,648 | 14,583 | 340,735 | 196,776 | 44,353 | 12,214 | 72,727 | 53,993 | 6,295 | 2,369 |
| Certification Interval | | | | | | | | | | | | |
| 3 months or less | 26.1 | 36.1 | 24.3 | 30.2 | 27.8 | 37.0 | 24.7 | 29.9 | 18.9 | 33.0 | 20.9 | 31.5 |
| 4 through 6 months | 46.6 | 44.5 | 46.4 | 43.5 | 46.0 | 44.3 | 45.5 | 43.1 | 48.8 | 45.2 | 53.6 | 45.7 |
| 7 months or more | 27.3 | 19.4 | 29.3 | 26.4 | 26.1 | 18.7 | 29.8 | 27.0 | 32.3 | 21.8 | 25.5 | 22.8 |
| Number of Cases | 747,474 | 409,374 | 111,007 | 31,114 | 605,255 | 319,206 | 97,747 | 26,499 | 142,219 | 90,168 | 13,260 | 4,615 |
| Aid Type | | | | | | | | | | | | |
| Non-PA | 79.8 | 85.0 | 87.0 | 93.4 | 78.9 | 85.1 | 86.9 | 93.5 | 83.4 | 84.8 | 87.6 | 92.6 |
| PA | 20.2 | 15.0 | 13.0 | 6.6 | 21.1 | 14.9 | 13.1 | 6.5 | 16.6 | 15.2 | 12.4 | 7.4 |
| Number of Cases | 747,474 | 409,374 | 111,007 | 31,114 | 605,255 | 319,206 | 97,747 | 26,499 | 142,219 | 90,168 | 13,260 | 4,615 |

Table 6: Parameter Estimates and Hazard Ratios for Proportional Hazard Model of Duration Until Exit for the September 1995 Cohort of Texas Food Stamp Case Heads, 1995-2001

| Independent Variable | All Cases | Citizen | Non-citizen (all) | Non-Citizen (mixed) |
|-----------------------------|--------------------|--------------------|--------------------|---------------------|
| Age | -0.0271 (0.9730)** | -0.0283 (0.9720)** | -0.0237 (0.9770)** | -0.0162 (0.9840)** |
| Dependents | 0.5219 (1.6850)** | 0.5105 (1.6660)** | 0.5597 (1.7500)** | 0.5711 (1.7700)** |
| Household Size | -0.1149 (0.8910)** | -0.1203 (0.8870)** | -0.0946 (0.9100)** | -0.0794 (0.9240)** |
| Female | -0.2664 (0.7660)** | -0.2862 (0.7510)** | -0.1423 (0.8670)** | -0.0943 (0.9100)* |
| Black | -0.2739 (0.7600)** | -0.2727 (0.7610)** | -0.0359 (0.9650) | 0.0156 (1.0160) |
| Hispanic | -0.1289 (0.8790)** | -0.1198 (0.8870)** | -0.0827 (0.9210)* | -0.0361 (0.9650) |
| Other | 0.0296 (1.0300)* | 0.1277 (1.1360)** | 0.0145 (1.0150) | 0.0501 (1.0510) |
| Education <9 | -0.1196 (0.8870)** | -0.1336 (0.8750)** | -0.0767 (0.9260)** | -0.0629 (0.9390)* |
| Education 9-12 (no diploma) | -0.0999 (0.9050)** | -0.1019 (0.9030)** | -0.0638 (0.9380)** | -0.0581 (0.9440)* |
| Citizenship | 0.2245 (1.2520)** | --- | --- | --- |
| Income | 0.0009 (1.0010)** | 0.0010 (1.0010)** | 0.0008 (1.0010)** | 0.0006 (1.0010)** |
| Employment | -0.1052 (0.9000)** | -0.1089 (0.8970)** | -0.0940 (0.9100)** | -0.0660 (0.9360)* |
| Certification | -0.0501 (0.9510)** | -0.0583 (0.9430)** | -0.0225 (0.9780)** | -0.0146 (0.9860)** |
| Aid Type | -0.0068 (0.9930)* | -0.0092 (0.9910)* | 0.0047 (1.0050) | -0.1326 (0.8760)** |
| Metropolitan Status | -0.0222 (0.9780)** | -0.0165 (0.9840)** | -0.0529 (0.9480)** | -0.0276 (0.9730) |
| Likelihood Ratio | 84,639.97 | 71,397.66 | 12,556.98 | 1,061.85 |
| Score | 82,877.99 | 69,393.02 | 12,375.05 | 1,031.23 |
| Wald | 82,277.73 | 68,920.56 | 12,196.85 | 1,020.03 |
| Total Cases | 592,198 | 481,439 | 110,759 | 15,434 |
| Censored Percentage | 2.95 | 3.13 | 2.16 | 1.16 |

Notes:

* p<0.05

** p<0.0001