6: The Effects of Economic Trends and Policy Changes on FSP Caseloads

The estimates of effects of recent policy changes and the economy on FSP caseloads are presented in this chapter. These estimated effects are based on the statistical models described in the previous chapter. The review of key findings focuses on how the determinants of food stamp receipt differ for households consisting of single or multiple adults with children, adults or elderly persons living separately, and elderly persons living with others.[1]

The main findings confirm that policy changes and economic trends have different effects on food stamp caseloads from different types of households. The main findings also show that reporting requirements, time limits, and sanctions can account for recent declines in FSP caseloads, while EBT and family caps increase FSP caseloads. These main findings are based on a basic model of caseloads that was described in Chapter 5 and that employs a minimum number of controls for factors other than unemployment rates and policy changes. Additional controls are omitted because of concern that real effects of policies may be obscured by the inclusion of measures of other factors that also happen to be changing over time. After the main findings are presented, this chapter also explores how these findings change when additional explanatory variables are added to the basic model, and when alternative measures of caseloads are used (section 6.2). Although some of the main findings change when these alternative methods are used, many persist. The following section (section 6.3) summarizes how the estimated effects of the economic and policy measures vary across the major types of households. The next section (6.4) briefly summarizes results obtained using alternative measures of policy changes. The final section discusses conclusions.

- These results are based on analyses of FSP caseloads, usually measured in this report as the number of food stamp participants as a proportion of the relevant population. This report does not analyze FSP "participation rates," usually defined as the number of participants as a percentage of persons eligible for food stamps. Other studies, such as *The Decline in Food Stamp Participation: A Report to Congress* (USDA/FNS, 2001), provide estimates of changes in these participation rates.

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[1] The small group of "child-only" food stamp units is included in the measures of aggregate caseloads, but a separate statistical analysis of this subgroup yielded few insights and is not shown. The definition of the relevant population for this group is unclear because these food stamp households do not actually consist of children living alone, but children who are in foster care or who are with adults who are ineligible for assistance. As Chapter Three indicated, the number of these households with ineligible non-citizens increased rapidly after 1996 because of the non-citizen provisions of PRWORA. The number of these food stamp households that include only citizens changed during these years in ways that generally seem unrelated to measurable economic and policy factors.

6.1   Main Findings

In the "basic model" described in detail in the last chapter, FSP caseloads are measured by dividing the number of participants in each type of household by the estimated population in similar households. Aggregate FSP caseloads are measured by dividing all participants by the total population. The basic model includes controls for current unemployment rates, measures of policy changes, state fixed effects, and year effects. The results, which are presented in Table 6-1, show that recent policy changes have had varying effects on FSP caseloads from different types of households. Later sections show that the results are somewhat sensitive to the use of additional control variables and alternative caseload measures.

<u>Economic trends have the largest effect on food stamp receipt of those in households consisting of multiple adults with children, adults living separately, and elderly persons living with others.</u> A one-percentage-point increase in the unemployment rate is associated with a 4 percent increase in aggregate FSP caseloads, and a larger 6-7 percent increase in caseloads from these three types of households. These results confirm that the strong economy in the late 1990s played at least some role in reducing food stamp receipt. These three groups of households included many non-disabled adults who received neither TANF nor SSI, who needed to work, and whose economic status was closely tied to current economic conditions. National trends in caseloads from households with multiple adults and children and adults living separately are clearly correlated with economic trends. National trends in caseloads from households consisting of elderly persons and others are less clearly linked to economic trends (Fig. 3-7), but the more detailed state-level analysis finds that the two trends are closely related. FSP caseloads from households living with others may be linked to the economy partly because some families choose to both to move in with elderly family members and to receive food stamps when the economy is weak.

Economic trends are associated with a much smaller effect on food stamp receipt among elderly persons living separately. Food stamp use among elderly persons is partly determined by current economic conditions because some elderly persons continue to work and some may receive assistance from younger relatives who work. For many elderly persons, however, food stamp use may be driven by lifetime income, the death of a spouse, or medical expenses rather than current economic conditions.

Economic trends are estimated to have a negligible effect on FSP receipt among those in single adult households with children. This result is somewhat surprising, in part because Figure 3-4 showed that

the total number of these participants and nationwide unemployment rates often moved together over time. In some years, however, these caseloads continued to rise while unemployment declined. Even in a strong economy, many single parents face especially large barriers to paid work. Policies and perhaps changes in attitudes could also have affected the number of FSP participants from this group. The weak association between unemployment rates and food stamp receipt for this group is not necessarily inconsistent with prior research (CEA, 1999 and others) that found that TANF caseloads declined as the economy improved. As Figure 3-4 showed, trends in the number of TANF and FSP participants were not identical. After 1996, some TANF leavers continued to receive food stamps.

Statewide EBT systems increased FSP caseloads from households with adults and children, but lowered FSP receipt among elderly persons living alone. Electronic Benefits Transfer systems were implemented in part to make food stamps easier to use and to reduce their stigma. EBT systems are associated with a statistically significant 6 percent increase in aggregate FSP caseloads and a 7-10 percent increase in caseloads from single- and multiple-adult families with children. These results indicate that in the late 1990s, EBT offset the effects of the economy and increased caseloads. EBT did not have a statistically significant effect on FSP receipt of adults living separately or elderly living with others.[2] The new technology reduced FSP receipt among elderly persons living separately by 9 percent. Some elderly persons, especially those with little prior experience with electronic banking, may have found EBT intimidating and difficult to use.

Higher food stamp error rates, a measure of relatively easier reporting requirements, are associated with increases in FSP caseloads from households with multiple adults and children. A one-percentage point increase in error rates is associated with a 1 percent increase in aggregate caseloads and a 0.8 percent increase in caseloads from multiple adult households with children. These households include many working adults who may be close to leaving the FSP and who could be pushed to leave by added reporting requirements.   Changes in error rates can account for only a minor reduction in FSP caseloads in the 1990s, however, because average nationwide error rates changed only modestly during these years. Unexpectedly, higher error rates are associated with reduced FSP receipt among elderly persons living separately.   Because less than 4 percent of these elderly recipients are employed, this estimated effect may be spurious, reflecting factors other than administrative features.

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[2]   Note that the differences in the estimated effect of EBT on adults living separately is not statistically significantly different (at the ten percent level) from the estimated effect of EBT on single- and multiple adult households with children.

Increases in the "frequent recertification rate," another measure of reporting burden, reduced FSP caseloads from households consisting of multiple adults with children and adults living separately. This rate is equal to the percentage of persons in working FSP households with recertification periods of 3 months or fewer. A ten-percentage point increase in this rate is associated with a 2.3-2.4 percent decrease in FSP caseloads from these two groups of households, and a 1.1 percent decrease in aggregate FSP caseloads. These two types of households include many working poor adults who may find frequent recertification difficult.

AFDC and TANF policies: Time limits and sanctions are associated with reduced FSP caseloads, while family caps are associated with increases in caseloads. However, the interpretation of these results can be questioned, in part because some measures of TANF policies unexpectedly "explain" reductions in FSP receipt among households that have no children and that would not be eligible for TANF. The estimated effects of TANF policies could reflect not only real effects of TANF but also other factors. These other factors could be the forcefulness of the "work first" message local office staff give to all public assistance recipients, or unmeasured trends in attitudes or economic and social factors. The estimated effects of TANF policies could also reflect a tendency to implement some provisions in states in which caseloads are generally falling or rising unusually slowly or unusually rapidly. Whenever TANF provisions affect FSP caseloads from households with and without children, one could still choose to interpret the estimated effects on households with children as genuine, but alternative interpretations are also reasonable.

Time limits that trigger work requirements or the reduction or elimination of TANF benefits are associated with a 7 percent reduction in FSP caseloads from single adult households with children. These households -- the group most likely to receive TANF -- may have responded to the TANF time limits by becoming self-sufficient. Others may have perceived the reporting requirements of welfare to be too large to bear for food stamps with reduced TANF benefits, and still others may have incorrectly believed that they had lost their eligibility for food stamps when they met the TANF time limit. Time limits had a statistically insignificant effect on FSP caseloads from multiple adult households with children, a group that is less likely to receive TANF. The TANF time limit also had little effect on FSP receipt among elderly living with others; this group includes some TANF recipients, but many may be exempt from time limits because of the presence of an elderly person. As expected, time limits had no effect on FSP receipt among elderly persons living separately. An unexpected finding is that TANF time limits are associated with reduced food stamp receipt among adults who live separately and who could not qualify for TANF.

Family benefit caps are associated with increases in FSP caseloads from households with children. Under family benefit caps, TANF recipients who have additional children do not receive increased TANF benefits. In the absence of additional TANF benefits for a new child, some households with children may have required additional months of food stamp benefits to make ends meet. Some single and multiple adult households with children subject to the family benefit caps may have responded by moving in with elderly relatives for additional assistance, while retaining their food stamp benefits. If so, this change in household composition may have increased the measured rate of food stamp receipt among households consisting of elderly persons living with others. The interpretation of these estimated effects may be questioned because family caps are also associated with increased FSP receipt among adults who live separately and who could not receive TANF.

Increases in the amount of earnings disregarded for the purpose of determining TANF benefit levels have mixed effects on FSP participation. In theory, increases in these earnings disregards could reduce FSP caseloads by accelerating the transition to self-sufficiency, or prolong food stamp receipt by increasing the number of households eligible for TANF and by making public assistance more attractive to working households. The results show that a doubling (a 100 percent increase) in the amount of earnings that is disregarded leads to a 3 percent increase in aggregate FSP caseloads. Higher disregards are statistically linked to declines in FSP caseloads from single adult households with children, and increases in FSP caseloads from households consisting of multiple adults and children and elderly persons living with others. Increases in the earnings disregard are unexpectedly associated with increases in food stamp receipt among elderly persons living separately, a finding that suggests that the estimated effects of earnings disregards could also reflect other factors.

TANF sanctions for failure to comply with TANF work requirements reduced aggregate FSP caseloads. The evidence indicates that partial TANF sanctions, delayed full family sanctions, and immediate full family sanctions all reduced aggregate food stamp caseloads by 6 to 12 percent, relative to caseload sizes that would have appeared under the more lenient traditional rules of AFDC. Because all states had imposed partial or full sanctions by the late 1990s, these three sanction variables together approximate a simple indicator for the post-TANF period. It is possible that a decline in participation associated with all three of these sanction variables could reflect a nationwide post-TANF decline in caseloads that could have happened for reasons other than sanctions. However, the results also indicate that the harsher full family sanctions --delayed or immediate -- are associated with larger declines in caseloads (in percentage terms) than the milder partial TANF sanctions. This pattern of results could be interpreted as consistent with a genuine effect of sanctions on caseloads.

Partial TANF sanctions and comparable disqualification reduced FSP caseloads from single adult households with children. Delayed and immediate full family sanctions have no statistically significant effect on FSP caseloads from this group, even though these sanction policies reduce aggregate caseloads. One may have expected harsher sanctions to have larger effects on caseloads. It is possible that partial sanctions could have a greater effect on food stamp usage than full family sanctions if the former are more likely to be imposed or if local office staff are more diligent in helping families overcome full family sanctions than partial sanctions.

Partial TANF sanctions, full family TANF sanctions, and lifetime TANF sanctions reduced FSP caseloads from multiple adult households with children. TANF sanctions have larger estimated effects on multiple adult households with children than single adult households with children, even though the latter are more likely to receive TANF. One explanation is that multiple adult households with children include a greater share of more nearly work-ready adults who are close to leaving the FSP and can be more readily pushed to leave public assistance through additional program requirements. The size of the effect on caseloads grows with the severity of the sanction: partial sanctions reduced caseloads by 8 percent, delayed full family sanctions reduced caseloads by 12 percent, and immediate full family sanctions reduced caseloads by 16 percent. Lifetime full family TANF sanctions are associated with an additional 11 percent reduction in FSP caseloads. For this group, comparable disqualification has no measured effect on FSP caseloads.

All of these measures of TANF sanctions have statistically insignificant effects on FSP caseloads from households consisting of elderly persons living with adults or children. Most of these households do not receive TANF. The TANF households in this group may have received exemptions from TANF sanctions because of the need to care for an elderly person.

Surprisingly, several TANF sanction policies are associated with statistically significant, large declines in FSP receipt among adults or elderly persons living separately. These households would not ordinarily receive TANF or be affected by TANF sanctions. Thus, the estimated effects of TANF sanctions on these and other households could reflect the role of other factors that influence caseloads and that are correlated with sanctions.

Summary. Economic factors, FSP administrative features, and AFDC/TANF policies clearly have different effects on different types of households. Reporting requirements, TANF time limits, and sanctions could have reduced FSP caseloads during the late 1990s. At the same time, the use of EBT systems and family benefit caps may have increased FSP caseloads. The estimated effects of AFDC

and TANF policies could, however, also reflect the role of unmeasured factors because their effects sometimes persist in groups that do not use TANF. The next section pursues these issues of interpretation issues further by exploring whether the main results change with the use of additional controls for other factors.

6.2   Alternative Models of FSP Caseloads

The main findings of this report are based on a "basic model" which employs a minimum of controls for other factors that could affect food stamp receipt. Other studies have analyzed food stamp receipt using additional controls, such as lagged caseloads, state-level time trends, and controls for demographic and political trends. If additional controls alter the estimated effects of policies, then important conclusions of this research may depend on one's (always debatable) choice of model. If additional controls reflect non-policy factors that explain a portion of recent trends in FSP receipt, then omitting these variables may result in incorrect, biased estimates of the effects of policies. These additional controls could even resolve some unexpected findings in Table 6-1, such as the estimated effects of TANF policies on groups without children. On the other hand, adding additional control variables correlated with policy changes and caseload trends may "overcontrol" for caseload trends that were caused by the policy changes, and lead to biased estimates of policy effects. This section summarizes how the main findings change when other models are employed.

Additional economic controls: Current-year state unemployment rates may not capture all economic forces that could influence food stamp caseloads. Lagged values of unemployment rates control for the possibility that less skilled persons may be the last to benefit from a strong economy and that some families may consider public assistance only after a recession persists. Ziliak, Gundersen, and Figlio (2001) also use employment growth rates as a measure of economic activity. Table 6-2 shows the estimated effects of economic and policy variables on caseloads when three new variables -- two lagged values of unemployment rates and employment growth rates -- are added to the basic model.

The effect of a permanent change in the unemployment rate is larger when both current and lagged unemployment terms are considered. For many groups, lagged unemployment rates have a statistically significant relationship with current FSP caseloads. Because current and lagged unemployment rates so highly correlated, the regression models will not precisely estimate the effect of each unemployment rate variable, so this section considers the sum of the estimated effects of all three unemployment rate variables, regardless of their statistical significance. Under this assumption, a permanent one-percentage-point increase in unemployment rates increases FSP caseloads by 6

percent among all households, and by 10-11 percent among households consisting of multiple adults with children, adults living separately, and elderly living with others. FSP receipt among elderly persons living separately remains relatively less cyclically sensitive. Although the economy has the smallest measured effect on caseloads from single adult households with children, a permanent one-percent increase in the unemployment rate now leads to a 0.7-percent increase in FSP caseloads from these households. Employment growth has a statistically significant effect on FSP receipt.

<u>With the addition of extra controls for economic trends, many of the estimated effects of the policy variables remain unchanged, but some estimated effects decline in size</u>. EBT, higher error rates, and family caps are still associated with increases in caseloads. Shorter recertification periods, time limits, and sanctions are still associated with reductions in FSP caseloads. Higher earnings disregards still have mixed effects. The additional controls also do not eliminate the counter-intuitive findings in Table 6-1; TANF policies still have effects on non-TANF households. As one adds these controls (as one moves from Table 6-1 to Table 6-2), some results change:

- The estimated effects of TANF time limits are now also associated with declines in aggregate caseloads as well as caseloads from single adult households with children.

- Family caps are no longer associated with statistically significant increases in caseloads from multiple adult households with children.

- Higher earnings disregards no longer lead to statistically significant increases in caseloads from households with elderly persons living with others, or the entire population.

- The estimated effects of sanctions are smaller for the entire population and for those in households with multiple adult households with children.

The evidence in Table 6-2 remains consistent with the possibility that sanctions reduced food stamp receipt among multiple adult households with children, but the results are harder to interpret. The simpler model in Table 6-1 produced the plausible finding that full family sanctions reduced caseloads from this group by more than partial sanctions. But when additional economic controls are added, partial sanctions and immediate full family sanctions reduce caseloads by a similar amount while delayed full family sanctions no longer reduce caseloads. Because the effect of sanctions depends on factors other than their size, the findings in Table 6-2 could still reflect real effects of sanctions.

Additional controls for wage, demographic, and political trends: Table 6-3 adds still more explanatory variables that attempt to control for changes in other factors. The added variables are:

- Two measures of earnings opportunities for less skilled workers: the log of the 20th percentile of weekly wages of adults and the log of the amount earned in a month in a minimum wage job;

- The percentage of the population that is African American;

- The percentage of births to unmarried women;

- The number of new immigrants (lagged one and two years) as a percent of the state population;

- Three measures of trends in political attitudes: indicators for the presence of a Republican governor, Republican control of both state houses, and Democratic control of both state houses.

<u>When additional controls for economic, demographic, and political trends are added to the basic model, the estimated effects of EBT, family caps, and sanctions decline</u>. EBT, higher error rates, and family caps still generally increase participation. Shorter recertification periods, time limits, and sanctions still reduce participation. Earnings disregards continue to have mixed effects. Even with these additional controls, TANF policies still have effects on households without children. The results of this model (Table 6-3) and the main findings in Table 6-1 differ in some important ways:

- EBT no longer increases caseloads from multiple adult households with children.

- TANF time limits reduce FSP caseloads from both single and multiple adult households with children.

- Family caps no longer increase caseloads from households with adults and children, but they still increase caseloads from those in households consisting of elderly persons living with others.

- Only partial sanctions are associated with statistically significant reductions in aggregate caseloads and caseloads from single adult households with children. Only lifetime sanctions reduce caseloads from multiple adult households with children.

These diminished effects of sanctions, family caps, and EBT indicate that some policy changes are correlated with other social trends that could also have reduced caseloads. The estimated effects that are sensitive to the inclusion of additional explanatory variables could simply reflect the role of other factors. Despite the sensitivity of some findings, and despite the persistence of unexpected effects of some TANF policies on groups without children, the evidence is still consistent with the possibility that time limits, sanctions, and reporting requirements reduced FSP caseloads. [3]

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[3] The estimated effects of the additional controls are only sometimes consistent with expectations. In Table 6-3 and other tables that use the additional controls, the wage variables occasionally reduce FSP caseloads as one would expect, but these variables are also unexpectedly associated with increases in caseloads. Republican governors and Republican control of statehouses are often associated with reduced caseloads, perhaps because these outcomes reflect changes in attitudes. However, among households with elderly persons, Republican control of statehouses is sometimes associated with increases in caseloads. Democratic statehouses are not associated with caseload increases.

State time trends. State time trend terms could control for steady, unmeasured changes in economic factors, demographic changes, and attitudes that may affect food stamp usage. If the time trends are omitted, the estimated effects of welfare reform could reflect merely the continuation of these pre-existing trends. State time trends could also incorrectly control for caseload trends actually caused by policies and incorrectly reduce the estimated effects of policy variables.

When state time trends and additional controls for economic, demographic, and political trends are added to the basic model (Table 6-4), the estimated effects of several policies change, and some of the estimated effects of policies are inconsistent with expectations. Many of the main findings in Table 6-1 are remarkably persistent in this more complex model. Caseloads are still most cyclically sensitive among households consisting of multiple adults with children, adults living separately, and elderly living with others. EBT increases caseloads from multiple adult households with children and the population as a whole. TANF time limits and higher earnings disregards still reduce caseloads from single adult households with children. Comparable disqualification still reduces caseloads from single adult households with children, and partial sanctions still reduce caseloads from multiple adult households with children and the entire population. TANF policies still unexpectedly affect caseloads from households without children.

A comparison of the main findings (Table 6-1) and the findings obtained from this more complex model (Table 6-4) reveals several changes. In the more complex model:

- EBT still increases caseloads among multiple adult households with children, but no longer increases caseloads from single adult households with children, and now *increases* rather than reduce food stamp receipt among elderly persons living separately.

- TANF time limits are associated with declines in caseloads from multiple adult households with children as well as caseloads from single adult households with children.

- Frequent recertification is also associated with declines in caseloads from single adult households with children as well as caseloads from multiple adult households with children and from households with adults living separately.

- Family caps no longer increase caseloads from households with adults and children, although this policy still increases caseloads from households consisting of elderly persons living with others.

- Higher earnings disregards still reduce caseloads from single adult households with children, but no longer increase caseloads from households consisting of multiple adults and children or elderly persons living with others.

- The total estimated effect of sanctions is smaller in the more complex model with state time trends, and some sanctions are unexpectedly associated with increases in caseloads.

Although the estimated effects of some sanction policies in this model could still reflect genuine effects of these policies, other estimated effects of sanctions are implausible. In the more complex model, immediate full family sanctions are associated with increases in caseloads from single adult households with children, relative to caseloads that would appeared under the more lenient AFDC rules. In the basic model (Table 6-1) both comparable disqualification and partial sanctions lowered FSP caseloads from this group. In the more complex model, only partial sanctions explain declines in caseloads from multiple adult households with children. In the basic model (Table 6-1), the effects of full sanctions and lifetime sanctions on this group were much larger. In the case of elderly persons living with others, the more complex model finds that comparable disqualification reduced caseloads but delayed full family sanctions unexpectedly increased caseloads. In the basic model, sanction variables have no effects on these households. Several types of sanctions and other TANF policies continue to affect the number of caseloads from households without children. In short, the model with additional explanatory variables and time trends finds that many policies could have affected FSP caseloads, but the evidence of these effects is less convincing than the evidence produced by models without state time trends.

Lagged caseloads: The addition of a lagged caseload term accounts for the possibility that caseloads could adjust sluggishly rather than immediately to economic and policy changes. While other reports analyzed a longer time series and were able to use several lagged caseload measures, this study employs only one lagged term, in part because only 13 years of data are available. The use of lagged caseloads limits the study to the years 1988-1999 because data on caseloads by type of household are unavailable for years prior to 1987. The results obtained with the most complex model, with lagged caseloads, state time trends, and all other variables, are shown in Table 6-5.[4]

When a lagged caseload term is added to the model with state time trends and all explanatory variables (Table 6-5), most of the results remain unchanged. The results from the model with a lagged caseload term, state time trends, and all other explanatory variables (Table 6-5) are mostly similar to the results from the model with state time trends and all other explanatory variables (6-4). The estimated effects of economic factors, FSP administrative variables, time limits, family caps, and earnings disregards are very similar in these two models. EBT still increases caseloads, although not among multiple adult households with children. Frequent recertification still reduces caseloads, although not among single adult households with children.

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[4] With a lagged participation rate added as an explanatory variable, the long-run effect of a unit change of an independent variable is equal to the coefficient divided by one minus the coefficient of the lagged participation rate measure.

Sanctions are associated with increases and reductions in caseloads. The results now show that comparable disqualification reduces caseloads from single adult households with children, while partial sanctions reduce caseloads from multiple adult households with children. Several of the estimated effects are contrary to expectations: delayed full sanctions substantially increase caseloads from households consisting of elderly persons living with others; and sanctions strongly affect food stamp receipt among elderly persons and adults without children. Partial sanctions and comparable disqualification reduce aggregate caseloads, but full sanctions unexpectedly increase aggregate caseloads. Because of these and other counterintuitive findings, the results based on model with time trends and lagged caseload terms provide less convincing evidence of genuine policy effects than the results based on the simpler models. As other studies have indicated, it is difficult to separate the effects of policies from steady trends in caseloads that occurred for other reasons

Alternative measure of FSP caseloads based on the population of relevant age: So far, the measure of caseloads has been equal to the number of participants in a specific type of household divided by the population in similar households. This measure of FSP caseloads was chosen because it addresses a straightforward research question concerning FSP caseloads for distinct types of easily defined households. A shortcoming of this caseload measure is that it will not reflect changes in the rate of formation of these households. It is often thought that the proportion of children born to single mothers could have been affected by welfare reform. An alternative measure of caseloads employs a denominator equal to the estimated population in a relevant age group.[5] Changes in the alternative measure will reflect not only changes in caseloads from each type of household, but also changes in the rate of formation of each type of household. If policies affect the composition of households, then the estimated effects of policies on single parent and other households could be larger when the alternative caseload measure is used. The alternative caseload measure will, however, also reflect irrelevant population trends in other types of households, so estimated effects of policies might be smaller when the alternative caseload measure is used. Findings obtained using this alternative caseload measure, and a basic model using a minimal set of controls, are shown in Table 6-6.

The estimated effects of policies on FSP caseloads generally change little when one also considers their potential effects of welfare reform on the number of different types of households. A comparison of results obtained using the basic model (Table 6-1 and Table 6-6) shows that:

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[5] The relevant population is the entire population for the estimate of aggregate food stamp caseloads, and caseloads from households with elderly persons living with others. The relevant population is the number of persons under age 60 for single or multiple adults with children, the number of persons over age 60 for elderly persons living separately, and the number of persons between the ages of 18 and 60 for adults living separately.

- The estimated effects of economic variables, EBT systems, frequent recertification, and earnings disregards on the two measures of caseloads are very similar.

- When this alternative measure of caseloads is used, higher error rates are associated with higher caseloads from single adult households with children, as well as caseloads from multiple adult households with children.

- When this alternative measure of caseloads is used, time limits reduce caseloads from multiple adult households with children. When the preferred measure of caseloads is used, time limits reduce caseloads from single adult households with children.

- When this alternative measure of caseloads is used, family caps remain associated with increases in caseloads from households with only adults and children, but no longer explain increases in caseloads from households consisting of with elderly persons living with others.

- The estimated effects of sanctions on the two measures of caseloads are generally similar, although the pattern of effects on single adult households with children is somewhat different.

- Several unexpected findings persist with both measures of caseloads: higher error rates are still associated with decreases in caseloads from elderly persons living separately; and time limits, family caps, earnings disregards, and sanctions still affect the number of caseloads from households without children.

When the preferred measure of caseloads is employed (Table 6-1), partial sanctions and comparable disqualification reduce caseloads single adult households with children. When the alternative measure is used, the effects of comparable disqualification are negligible but partial, delayed full family sanctions, and immediate full family sanctions are also associated with 7-10 percent reductions in caseloads. In short, the estimated effects of policies on caseloads are not dramatically larger when one considers their possible effects on the rate of formation of single parent and other households.

When all of the additional controls are added to the regressions that use this alternative measure of caseloads, (Table 6-7), the results change in ways that are generally similar to the changes that appear in Tables 6-2 through 6-5. Specifically, the estimated effects of EBT, family caps, and earnings disregards, and sanctions often become smaller, and in some instances, sanctions unexpectedly increase caseloads.

Households without non-citizens: Because of the restriction of eligibility for non-citizens under PRWORA, caseloads from households with and without non-citizens exhibit different trends. If the proportion of the population in low-income households with non-citizens across states is correlated with specific state-level policies, then estimates of the effects of policies could be biased, reflecting both the effects of the policies and the effects of the rules for non-citizens. To address this issue,

Table 6-8 shows estimates of the effects of policy measures on a third caseload measure equal to the log of the total number of participants in households without non-citizens (that is, without non-citizen participants and without ineligible non-citizens). The results indicate the effects on numbers of participants, rather than numbers of participants as a proportion of the relevant population.

The estimates of the effects of policies on FSP caseload trends generally persist when one attempts to control for the possible role of the PRWORA rules for non-citizens. The main findings in Table 6-1 generally persist or even grow stronger when the number of participants in citizen households is analyzed (Table 6-8), although the time limit does not reduce aggregate caseloads or caseloads from households with adults and children. When additional controls are added to the analysis of caseloads from household with only citizens (not shown), the estimated effects of EBT, family caps, and sanctions decline, although time limits reduce caseloads from households with adults and children. [6]

6.3   Summary of the Effects of the Economy and Specific Policies on FSP Caseloads from Different Types of Households

The previous section showed that, although some of the main findings persisted in more complex models, the estimated effects of sanctions and other policies are sensitive to the choice of statistical model. While it is important to show that these estimated effects are sensitive to estimation methods, this presentation of results based on a range of models makes it difficult to distill a "bottom line" set of conclusions about the potential effects of each policy.   This section presents a summary discussion of how the effects of each policy vary by type of household, and whether these estimated effects are sensitive to the statistical model employed.   In this summary, more emphasis is placed in results obtained by analyzing the preferred measure of caseloads (measured as a proportion of the population in similar households), but the results obtained using the alternative measure based on the population of similar age are also discussed.

Economic trends: Caseloads from households that consist of multiple adults and children, adults living separately, and elderly persons living with others are more cyclically sensitive than caseloads from households that consist of single adults with children and elderly persons living alone. When the effects of lagged unemployment rates are considered, the estimated effects of the economy become stronger.

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[6]This caseload measure seems less preferable than the measure employed in Tables 6-1 to 6-7 because it does not express caseloads as a percentage of the relevant population. Estimated effects in Table 6-8 could reflect the role of state-to-state differences in general population trends that affect the size of caseloads. The other estimates correct for these general population trends.

EBT: Statewide EBT systems are associated with 4-6 percent increases in aggregate FSP caseloads in all models.   The main findings (Table 6-1) indicate that EBT increases caseloads single and multiple adult households with children.   In some of the more complex models, EBT continues to increase caseloads from single or multiple adult households with children.   However, in the most complex model -- with lagged participation, state time trends, and all additional control variables -- the effect of EBT on these two groups is statistically insignificant at the ten percent level.   Thus, the effects of EBT on these households could be genuine or reflect the role of other factors.

EBT accounts for *reductions* in food stamp receipt among elderly persons living separately in simpler models without state time trends, but *increases* in food stamp receipt for this group in models with state time trends. The estimated effect of EBT on this group therefore depends on whether one believes time trends belong in these models.

Error rates: Higher error rates, a measure of less burdensome reporting procedures, are associated with increases in FSP caseloads from households with multiple adults and children in all models. When the alternative measure of caseloads (based on the population of relevant age) is analyzed, higher error rates also increase caseloads from single adult households with children.   An unexpected finding is that higher error rates are associated with reductions in caseloads from the two groups of households with elderly persons.   This unexpected result may have arisen from unmeasured factors correlated with changes in error rates.

Frequent recertification: Increases in the "frequent recertification rate," another measure of reporting burden, reduce aggregate caseloads, caseloads from households consisting of multiple adults with children, and caseloads from households consisting of adults living separately.   These two groups of households include substantial numbers of working adults who might be pushed from the program additional reporting requirements.   In more complex models with state time trends, increases in the rate of frequent recertification may also reduce caseloads from single adult households with children.   Increases in the rate of frequent recertification do not reduce caseloads from those in households with elderly persons.

AFDC/TANF time limits: The main findings indicate that time limits do not reduce aggregate FSP caseloads. The models with additional controls find that time limits are associated with statistically significant reductions in caseloads of 3-7 percent.   Time limits reduce FSP caseloads from households with adults and children, but the specific findings are sensitive to specification. When the preferred measure of caseloads is analyzed, time limits reduce caseloads from single adult households with

children in all models, and time limits reduce caseloads from multiple adult households with children in all models with controls for demographic and political trends. When the alternative measure of caseloads is analyzed, time limits reduce caseloads from single adult households with children in models with state time trends, and time limits reduce caseloads from multiple adult households with children in all models.

Time limits do not reduce caseloads from households consisting of elderly persons living with others. Some of these households qualify for TANF but may receive exemptions because of the presence of an elderly person. Time limits on AFDC and TANF receipt are also unexpectedly associated with reductions in caseloads from households with adults and elderly persons living separately.

Family caps: Family caps increase FSP caseloads from all households and those with adults and children, but this effect becomes statistically insignificant in more complex models. The effect of family caps on aggregate caseloads becomes statistically insignificant in models with state time trends. Similarly, the effect of family caps on single adult households with children becomes statistically insignificant in models with additional controls for demographic and political trends. The effect of family caps on multiple adult households with children becomes statistically insignificant when any additional controls are added to the basic model. In the basic model and more complex models, family caps also increase caseloads from households consisting of elderly persons and others. These effects of family caps may be genuine but they may reflect the role of other factors, especially since family caps also affect caseloads from households without children in many models.

Earnings disregards: Higher AFDC/TANF earnings disregards, which could theoretically increase or reduce FSP usage, have mixed effects on FSP caseloads, and these effects vary with specification. The main findings show that higher earnings disregards are associated with increases in aggregate caseloads but this effect becomes statistically insignificant in other models. In the case of single adult households with children, higher earnings disregards reduce caseloads in all models when the preferred measure of caseloads is analyzed. In the case of multiple adult households with children, higher earnings disregards have the opposite effect, increasing caseloads, but this effect becomes statistically insignificant in models with state time trends. Among households consisting of elderly persons and others, higher earnings increase caseloads in the simpler models, but this effect tends to disappear when additional control variables are added. In some specifications, higher earnings disregards are associated with increases in caseloads from households without children.

Sanctions: Comparable disqualification and partial sanctions reduce FSP caseloads from single adult households with children in several models. Comparable disqualification reduces caseloads from this group in the simpler models (although not in Table 6-3) and in the models with state time trends when the preferred measure of caseloads is analyzed. Partial sanctions also reduce caseloads from this group, but this effect becomes statistically insignificant with the addition of state time trends. Full TANF sanctions also reduce caseloads from this group, but only in simpler models when the alternative measure of caseloads is analyzed.

Partial sanctions, full sanctions, and lifetime TANF sanctions are also associated with substantial reductions in FSP caseloads multiple adult households with children, but these estimated effects -- especially the effects of full sanctions -- tend to diminish when additional controls are added to the models. In the basic model, partial sanctions, delayed full family sanctions, and immediate full sanctions cause progressively larger reductions in FSP caseloads from this group, and lifetime TANF sanctions further reduce caseloads. When controls for demographic, economic, and political factors are added, only lifetime sanctions reduce caseloads. When state time trends and lagged caseloads are added, only partial sanctions reduce caseloads.   When the alternative measure of caseloads is analyzed using the most complex models with all available controls, sanctions have no effect at all on caseloads. Consequently, the estimated effects of sanctions on this group could reflect the real effects of sanction policies or other factors correlated with the imposition of sanctions.

TANF sanctions do not reduce FSP caseloads from households with elderly persons and others; many of these households either do not receive TANF or are exempt from the work requirements. In the models with state time trends, delayed full sanctions are unexpectedly associated with large increases in participation, a finding that seems likely to have been caused by other factors. Sanction policies are also unexpectedly associated with changes in caseload levels from households with adults and elderly persons without children.

The effect of sanctions on aggregate caseloads is the sum of the effects on these subgroups. In the basic model, partial and full family sanctions reduce aggregate caseloads by progressively larger amounts. When other controls but no time trends are added, only partial sanctions reduce FSP caseloads.   In the models with state time trends, but not in the simpler models, comparable disqualification also reduces aggregate caseloads. In the most complex model, with state time trends and lagged caseloads (Table 6-5), full sanctions unexpectedly increase aggregate caseloads.

6.4   Results Based on Other Measures of Policies

The results described in the previous sections are based on a single set of measures of policy changes. Researchers have also estimated the effect on caseload size of a large number of other policy measures. Because the policy changes of the last decade were so numerous and complex, more than one set of reasonable measures could clearly be used to estimate the effects of policies. This section briefly discusses results obtained using other measures of policies used in similar research. These alternative policy measures were described in section 5.3 of the previous chapter. To summarize, none of these alternative policy measures appears to be more capable of explaining recent changes in food stamp caseloads, and none provides additional insights as to how policies had different effects on caseloads from different types of households. These results are not shown in tables.

Simple indicators for the implementation of TANF: These indicator variables had statistically insignificant effects on FSP caseloads from each of the major subgroups of households. One explanation for this result is that specific components of TANF plans had offsetting effects: sanctions and time limits reduced caseloads, while family caps increased them.

Indicators for strong, medium, and weak TANF plans: Blank and Schmidt (2001) introduced this three-way classification of TANF plans. This categorization of state plans is based on the combined effects of sanctions, time limits, and disregards. The three indicator variables explained none of the recent decline in caseloads from any of the major types of households.

Indicators for grant diversion and up-front job search: These policies could discourage families from receiving food stamps, but indicators for the presence of these policies were not associated with statistically significant reductions in FSP caseloads.

Work exemptions : Narrower exemptions imply that a larger share of the caseload must face work requirements. The previous chapter described a set of three variables that were used in the CEA (1999) study and that grouped states according to the presence of exemptions based on the age of the youngest child. These three exemption variables do not account for reductions in the FSP caseload. In many cases, they are unexpectedly associated with increases in caseloads when are added to models using the other policy measures in Table 6-1. When a large number of policy measures are included in these models, sorting out the effects of each variable probably becomes increasingly difficult. These results do not necessarily mean that exemptions do not affect food stamp receipt.

These exemption variables do not measure other aspects of exemptions, such as exemptions for those with disabilities and "discretionary" exemptions granted by local office staff.

Reduction/elimination time limits: The estimated effects of TANF time limits were smaller when this measure reflects only benefit reduction/termination time limits, and not the "work trigger" time limits. This alternative measure of time limits did not explain a larger amount of caseload change than the measure used in this report. In future years, as more families become subject to the TANF time limit, a separate analysis of benefit reduction/termination time limits might be of greater interest.

Variables from the 1999 CEA study of TANF caseloads: The CEA (1999) study included a measure of time limits, three measures of sanctions (partial, delayed full, and immediate full family sanctions), the three exemption variables described above, and measures of family caps, earnings disregards, and the maximum AFDC benefit. The policy variables in the tables of this chapter classify sanction variables in a slightly different way and exclude the work exemption variables. When the CEA policy variables were used to analyze FSP caseload trends, they yielded findings that either were roughly similar to the findings in this report, or were less successful in explaining caseload trends.

Interactions of policy measures: Finally, the effects of several interactions of these policy measures were analyzed. The effects of time limits may vary depending on whether sanctions are also present, and the effect of sanctions depends in part of the state's policy toward exemptions. Additional policy variables measured the effect of combinations of policies, such as sanctions with and without narrow exemption policies, or time limits with and without sanctions. These variables yielded mostly statistically insignificant and counterintuitive results and did not improve the model's ability to explain changes in FSP caseloads.

6.5   Some Conclusions

Because the FSP serves such a diverse range of households, an analysis of the determinants of caseloads from specific types of households is far more important for the FSP than for other programs such as TANF, which serves mostly single adults with children and a smaller number of multiple adults with children. The main findings presented in this chapter show that the effects of economic trends and policy changes on FSP caseloads differ by type of household. Economic trends have the strongest effects on food stamp receipt households consisting of multiple adults with children, adults living separately, and elderly persons living with adults or children. EBT systems increase caseloads

from households with adults and children, but reduce food stamp receipt among elderly persons living alone.   Higher FSP error rates increase caseloads from multiple adult households with children. Shorter recertification periods reduce FSP caseloads from households with multiple adults and children and with adults living separately. TANF time limits and sanctions reduce caseloads from households with adults and children, while family caps increase caseloads from these households.

This study of FSP caseload trends of distinct types of households also provides additional tests of the meaning of the policy variables. One expects reporting requirements to affect working households, and one expects TANF rules to affect only households with children.   This study finds that several aspects of state TANF policies -- sanctions, time limits, and family caps -- also have estimated effects on food stamp receipt among adults and elderly persons living separately, without children. These unexpected findings suggest that the estimated effects of the policy variables -- including the more plausible estimated effects on households with children-- could reflect the influence of other factors that may be correlated with both the policy changes and caseload trends.

These other factors could include unmeasured trends in economic factors, prevailing wages, demographic factors, attitudes toward public assistance, or unmeasured policy changes, such as aspects of state TANF and Medicaid policies that are difficult to quantify. Nationwide policy changes, such as the changes in the SSI program, higher minimum wages, aspects of TANF imposed nationwide, and the expanded EITC could have different effects in different states. The tone of the "work first" message that local office staff give to all public assistance recipients could differ across states.   States may also have a greater tendency to enact certain policy changes when general caseloads are already changing especially rapidly.

To explore the possible role of at least some of these factors, additional control variables were added to the basic model. These additional variables include lagged unemployment rates, prevailing wage rates, measures of demographic and political trends, state time trends intended to measure steady changes in FSP caseloads since the late 1980s, and lagged caseloads. The preferred, simpler model in this report basic omitted these additional variables because of concerns that they could "overcontrol" for trends in caseloads that were actually caused by policy changes that could be measured. Other similar studies prefer to include these additional variables because they could control for other factors that have truly affected FSP caseloads and that happen to be correlated with policy changes. The "natural experiment" provided by variation in policies, economic trends, and caseload trends across states and over time is highly informative but does not unambiguously distinguish the effects of the

many factors that affect caseloads and that were changing at about the same time. As a result, the choice of the "correct model" is unclear, although this study leans toward the simpler models.

When these additional controls are added to the model, many of the estimated effects of policies are remarkably persistent. In several models, EBT still increases FSP caseloads from households with adults and children. Higher error rates persistently reduce caseloads from multiple adult households with children. Shorter recertification periods continue to lower caseloads from households with multiple adults and children and adults living separately. TANF time limits continue to reduce caseloads from households with adults and children. Even in more complex models, the sanction variables can still account for reductions in caseloads from single and multiple adult households with children. These additional variables also do not eliminate the unexpected effects of TANF policies on households without children.

Other findings obtained with the basic model change more substantially when other controls are added. The effect of EBT on households with adults and children is no longer statistically significant in the most complex model with lagged participation, state time trends, and all other variables. In the models with state time trends, the effect of EBT on elderly persons living separately reverses, and actually increases food stamp receipt for this group. The estimated effects of family caps on households with one or more adults and children decline when additional controls are added. The estimated effects of sanctions on caseloads from multiple adult households with children also decline in the more complex models. When state time trends are added, some sanction policies are surprisingly associated with increases in caseloads.

Taken together, these results are consistent with the view policy changes have affected recent caseload trends. The evidence in favor of the contention that more burdensome reporting requirements reduce caseloads is especially convincing. The effects of EBT, some types of sanctions, and time limits persist in many if not all of more complex models with additional controls. If one has more confidence in the simpler models, then the evidence for the effects of sanctions, EBT, and family caps on caseloads is stronger. One could interpret these estimated effects of TANF policy variables on households with children as genuine, even though these policy measures also have unexpected effects on households without children.

One could also interpret these estimates as showing that recent policies, especially TANF policies, had little or no effect on recent caseload changes. The decline in the size of some of these effects when other controls are added could be seen as evidence that the estimated effects of policies in the

simpler models reflect the role of other factors correlated with the imposition of policies. The unexpected estimated effects of TANF policies on households without children could be seen as evidence that these policies are simply measuring the effects of other factors that influence general caseload trends.

Although we will probably never precisely identify the effects of these policies on FSP caseloads, the evidence shows that reporting requirements, TANF time limits, TANF sanctions for failure to comply with work requirements, and comparable disqualification may have reduced FSP caseloads in the late 1990s. Although some households that left the FSP as a result of these policies may have become self sufficient, other evidence suggests that many non-participants remain eligible for benefits. Based on these findings, a case can be made for continued efforts to make the FSP more accessible as a "risk averse" response to concerns about food insecurity, especially if the economy begins to falter. Measures to simplify the recertification process and to inform TANF leavers about food stamp benefits could be considered. USDA took some steps to ease reporting requirements after 1999.

These findings complement the findings of several other studies of FSP caseload trends summarized in Chapter Four. This estimated effects of specific policies in this report are larger than those reported in Ziliak, Gundersen, and Figlio (2001) and Wallace and Blank (1999). These studies found that indicators for welfare reform caused either only minor reductions in caseloads or had no effect at all on caseloads. Ziliak, Gundersen, and Figlio (2001) also found that EBT had no effect on caseloads, while this report found that EBT affected caseloads in several models. Gleason et al (2001) found that measures of strong, moderate, and weak work requirements of state AFDC and TANF policies explain only modest declines in caseloads. This report uses a larger number of measures of more specific policies and found larger effects of policies. Differences in the years analyzed, the policy measures employed, and the separate analyses of different households in this report could all explain these discrepancies in findings.

This report and the study by Currie and Grogger (2001), which also examined the determinants of FSP caseloads for different types of households but which relied on reported food stamp receipt in the Current Population Survey, reach somewhat different conclusions. Both studies find shorter recertification periods reduce caseloads, so the evidence that reporting requirements affect caseloads seems especially strong. Both studies find that measures of strong sanction policies may reduce food stamp caseloads, although the specific measures of policies are different in the two studies. In the study by Currie and Grogger, the indicator for the implementation of TANF explained a substantial decline in food stamp receipt, while a similar variable had a negligible effect on caseloads in this

report. Currie and Grogger also found that EBT had only a limited effect on caseloads, while this report found larger effects. The use of different sources of information on food stamp receipt (survey or administrative data) and the analysis of different sets of years could explain these differences in findings.

In this report, unlike most of the previous studies, a major theme is that policies and economic trends have different effects on trends in caseloads from different types of households. Another important issue discussed in many of these studies is the extent to which the selected measures of economic trends and policy changes explain the rapid decline in FSP caseloads in the late 1990s. The final chapter of this report uses the results in this chapter to assess how much of the recent decline in FSP caseloads could be explained.

Table 6-1
Estimated Effects of Economic Trends and Policy Changes on FSP Caseloads: Main Findings

	All FSP Participants			Single Adults with Children			Multiple Adults with Children			Adults Living Separately			Elderly Living Separately			Elderly with Others		
Unemployment rate	4.232	(0.546)	***	-0.436	(0.894)		7.107	(0.881)	***	7.041	(0.933)	***	2.944	(0.941)	***	6.289	(1.977)	***
EBT	0.055	(0.023)	**	0.098	(0.037)	***	0.068	(0.038)	*	0.056	(0.039)		-0.094	(0.041)	**	-0.036	(0.084)	
FSP error rate	0.950	(0.228)	***	0.055	(0.367)		0.807	(0.233)	***	-0.142	(0.236)		-0.491	(0.156)	***	-0.160	(0.117)	
Frequent recertification	-0.112	(0.033)	***	0.004	(0.051)		-0.236	(0.051)	***	-0.229	(0.047)	***	-0.056	(0.049)		0.012	(0.080)	
AFDC/TANF policy variables																		
Time limit	-0.031	(0.024)		-0.069	(0.039)	*	-0.040	(0.040)		-0.128	(0.040)	***	0.032	(0.042)		0.058	(0.089)	
Family cap	0.071	(0.022)	***	0.098	(0.035)	***	0.068	(0.036)	*	0.163	(0.037)	***	0.057	(0.038)		0.141	(0.080)	*
Log earnings disregard	0.029	(0.015)	*	-0.086	(0.024)	***	0.079	(0.024)	***	0.031	(0.025)		0.077	(0.025)	***	0.130	(0.055)	**
Work sanctions																		
Partial/partial	-0.063	(0.028)	**	-0.119	(0.045)	***	-0.083	(0.046)	*	-0.078	(0.047)	*	-0.127	(0.049)	***	-0.121	(0.099)	
Partial/full	-0.106	(0.031)	***	-0.061	(0.050)		-0.116	(0.051)	**	-0.078	(0.052)		-0.101	(0.054)	*	0.067	(0.115)	
Full/full	-0.117	(0.035)	***	-0.075	(0.057)		-0.160	(0.058)	***	-0.120	(0.059)	**	-0.119	(0.061)	*	-0.097	(0.129)	
Comp. disqualification	-0.028	(0.025)		-0.107	(0.041)	***	-0.001	(0.042)		-0.089	(0.041)	**	-0.186	(0.044)	***	-0.126	(0.087)	
Lifetime sanction	-0.029	(0.038)		-0.060	(0.061)		-0.111	(0.062)	*	-0.149	(0.063)	**	0.060	(0.065)		0.071	(0.139)	
Sample size	663			663			663			663			663			663		

* Statistically significant at the 10 percent level; ** at the 5 percent level; *** at the 1 percent level. Standard errors in parentheses. The measure of caseloads (the dependent variables in these regressions) is equal to the log of the ratio of the number of FSP participants in each type of household to the estimated population in similar households. All regressions include state and year effects. The state/year observations in these regressions are weighted by the relevant state population and are based on fiscal year data from 1987-1999 from all 50 states and DC.

Table 6-2
Effects of Economic Trends and Policy Changes on FSP Caseloads, Estimated Using Additional Economic Controls

	All FSP Participants	Single Adults with Children	Multiple Adults with Children	Adults Living Separately	Elderly Living Separately	Elderly with Others
Unemployment rate	0.020 (0.995)	-3.717 (1.690) **	0.450 (1.663)	1.852 (1.715)	2.339 (1.833)	-3.705 (3.843)
Unemployment rate, t-1	2.239 (1.184) *	2.167 (2.004)	5.017 (1.974) **	0.940 (2.029)	0.123 (2.180)	9.564 (4.566) **
Unemployment rate, t-2	4.068 (0.798) ***	2.316 (1.358) *	4.769 (1.328) ***	7.433 (1.367) ***	1.958 (1.472)	4.745 (3.061)
Employment growth rate	0.024 (0.332)	-0.239 (0.570)	0.494 (0.554)	-0.172 (0.568)	0.937 (0.609)	1.336 (1.292)
EBT	0.052 (0.021) **	0.096 (0.037) ***	0.063 (0.036) *	0.049 (0.037)	-0.094 (0.041) **	-0.044 (0.082)
FSP error rate	1.020 (0.214) ***	0.185 (0.368)	0.796 (0.221) ***	-0.075 (0.225)	-0.474 (0.156) ***	-0.168 (0.115)
Frequent recertification	-0.066 (0.031) **	0.034 (0.052)	-0.183 (0.049) ***	-0.181 (0.046) ***	-0.049 (0.049)	0.023 (0.078)
AFDC/TANF policy variables						
Time limit	-0.044 (0.023) *	-0.079 (0.039) **	-0.058 (0.038)	-0.146 (0.038) ***	0.028 (0.042)	0.048 (0.087)
Family cap	0.058 (0.021) ***	0.092 (0.035) ***	0.049 (0.034)	0.137 (0.035) ***	0.050 (0.038)	0.108 (0.078)
Log earnings disregard	0.004 (0.014)	-0.103 (0.024) ***	0.041 (0.024) *	-0.006 (0.024)	0.065 (0.026) **	0.076 (0.055)
Work sanctions						
Partial/partial	-0.058 (0.026) **	-0.119 (0.045) ***	-0.075 (0.044) *	-0.065 (0.045)	-0.121 (0.049) **	-0.102 (0.098)
Partial/full	-0.060 (0.030) **	-0.037 (0.050)	-0.045 (0.050)	-0.010 (0.051)	-0.076 (0.055)	0.168 (0.115)
Full/full	-0.076 (0.033) **	-0.054 (0.057)	-0.097 (0.056) *	-0.051 (0.057)	-0.090 (0.062)	-0.006 (0.128)
Comp. disqualification	-0.037 (0.024)	-0.111 (0.040) ***	-0.013 (0.039)	-0.099 (0.039) **	-0.190 (0.043) ***	-0.115 (0.086)
Lifetime sanction	-0.046 (0.035)	-0.073 (0.061)	-0.134 (0.059) **	-0.172 (0.060) ***	0.055 (0.065)	0.050 (0.136)
Sample size	663	663	663	663	663	663

* Statistically significant at the 10 percent level; ** at the 5 percent level; *** at the 1 percent level. Standard errors in parentheses. The measure of caseloads (the dependent variables in these regressions) is equal to the log of the ratio of the number of FSP participants in each type of household to the estimated population in similar households. All regressions include state and year effects. The state/year observations in these regressions are weighted by the relevant state population and are based on fiscal year data from 1987-1999 from all 50 states and DC.

Table 6-3
Effects of Economic Trends and Policy Changes on FSP Caseloads, Estimated Using Additional Controls for Economic, Demographic, and Political Trends

	All FSP Participants	Single Adults with Children	Multiple Adults with Children	Adults Living Separately	Elderly Living Separately	Elderly with Others
Unemployment rate	-0.023 (0.978)	-3.643 (1.732) **	1.429 (1.659)	0.939 (1.708)	3.648 (1.810) **	0.563 (3.917)
Unemployment rate, t-1	2.583 (1.129) **	2.555 (1.990)	4.879 (1.909) **	2.187 (1.964)	-1.105 (2.096)	7.579 (4.515) *
Unemployment rate, t-2	3.528 (0.805) ***	2.402 (1.425) *	4.156 (1.359) ***	6.806 (1.402) ***	0.782 (1.500)	5.173 (3.212)
Employment growth rate	0.201 (0.323)	0.028 (0.577)	0.604 (0.547)	0.259 (0.561)	0.690 (0.598)	1.051 (1.300)
EBT	0.046 (0.021) **	0.098 (0.038) ***	0.054 (0.036)	0.047 (0.037)	-0.088 (0.040) **	-0.011 (0.083)
FSP error rate	1.066 (0.205) ***	0.327 (0.368)	0.806 (0.215) ***	0.054 (0.223)	-0.269 (0.155) *	-0.296 (0.118) **
Frequent recertification	-0.085 (0.030) ***	-0.001 (0.052)	-0.200 (0.048) ***	-0.170 (0.045) ***	-0.047 (0.047)	0.050 (0.079)
AFDC/TANF policy variables						
Time limit	-0.049 (0.022) **	-0.069 (0.039) *	-0.081 (0.037) **	-0.140 (0.038) ***	0.026 (0.041)	0.041 (0.086)
Family cap	0.043 (0.021) **	0.060 (0.037)	0.037 (0.035)	0.110 (0.036) ***	0.047 (0.038)	0.136 (0.082) *
Log earnings disregard	0.016 (0.015)	-0.074 (0.026) ***	0.063 (0.025) **	0.015 (0.026)	0.017 (0.028)	0.087 (0.061)
Work sanctions						
Partial/partial	-0.046 (0.026) *	-0.087 (0.047) *	-0.068 (0.045)	-0.042 (0.046)	-0.125 (0.050) **	-0.079 (0.104)
Partial/full	-0.032 (0.029)	-0.019 (0.052)	-0.001 (0.050)	0.019 (0.051)	-0.054 (0.054)	0.189 (0.118)
Full/full	-0.044 (0.034)	-0.018 (0.062)	-0.052 (0.058)	-0.015 (0.059)	-0.076 (0.064)	-0.001 (0.138)
Comp. disqualification	-0.025 (0.024)	-0.065 (0.043)	-0.003 (0.040)	-0.101 (0.041) **	-0.218 (0.044) ***	-0.113 (0.090)
Lifetime sanction	-0.016 (0.033)	-0.056 (0.060)	-0.095 (0.057) *	-0.138 (0.057) **	0.041 (0.062)	0.010 (0.134)
Log monthly min wage	-0.071 (0.138)	-0.116 (0.261)	0.143 (0.234)	-0.218 (0.237)	-0.386 (0.266)	-0.690 (0.550)
Log 20th wage percentile	-0.282 (0.121) **	0.276 (0.220)	-0.266 (0.204)	-0.236 (0.211)	-0.369 (0.226)	0.970 (0.486) **
Republican governor	-0.073 (0.011) ***	-0.060 (0.020) ***	-0.106 (0.018) ***	-0.111 (0.019) ***	-0.002 (0.020)	0.014 (0.043)
Both houses Republican	-0.045 (0.018) **	-0.090 (0.032) ***	-0.040 (0.030)	-0.070 (0.031) **	0.103 (0.032) ***	0.158 (0.072) **
Both houses Democratic	0.001 (0.015)	0.042 (0.028)	0.003 (0.026)	-0.019 (0.027)	-0.067 (0.029) **	0.099 (0.062)
Sample size	663	663	663	663	663	663

* Statistically significant at the 10 percent level; ** at the 5 percent level; *** at the 1 percent level. Standard errors in parentheses. The measure of caseloads (the dependent variables in these regressions) is equal to the log of the ratio of the number of FSP participants in each type of household to the estimated population in similar households. All regressions also include state and year effects, the percentage of the population that is African American, the percentage of births to unmarried women, and the number of new immigrants (lagged one and two years) as a percentage of the population. The state/year observations in these regressions are weighted by the relevant state population and are based on fiscal year data from 1987-1999 from all 50 states and DC.

Table 6-4

Effects of Economic Trends and Policy Changes on FSP Caseloads, Estimated Using All Additional Controls and State Time Trends

	All FSP Participants	Single Adults with Children	Multiple Adults with Children	Adults Living Separately	Elderly Living Separately	Elderly with Others
Unemployment rate	-0.195 (0.830)	-3.028 (1.679) *	1.299 (1.553)	0.173 (1.481)	1.266 (1.561)	4.264 (4.152)
Unemployment rate, t-1	2.045 (0.904) **	1.847 (1.817)	3.797 (1.678) **	1.968 (1.609)	-1.549 (1.709)	6.916 (4.450)
Unemployment rate, t-2	2.120 (0.687) ***	2.322 (1.381) *	2.409 (1.278) *	3.086 (1.232) **	0.116 (1.309)	3.992 (3.401)
Employment growth rate	0.029 (0.268)	-0.058 (0.546)	0.603 (0.497)	-0.517 (0.474)	0.900 (0.506) *	1.697 (1.324)
EBT	0.055 (0.022) **	0.062 (0.044)	0.089 (0.041) **	0.059 (0.039)	0.107 (0.043) **	0.037 (0.106)
FSP error rate	1.081 (0.201) ***	-0.163 (0.391)	0.668 (0.214) ***	0.328 (0.205)	-0.307 (0.137) **	-0.468 (0.120) ***
Frequent recertification	-0.108 (0.033) ***	-0.103 (0.061) *	-0.162 (0.057) ***	-0.175 (0.044) ***	0.033 (0.041)	0.085 (0.083)
AFDC/TANF policy variables						
Time limit	-0.065 (0.022) ***	-0.097 (0.045) **	-0.107 (0.041) ***	-0.120 (0.039) ***	-0.111 (0.042) ***	0.073 (0.108)
Family cap	-0.006 (0.025)	-0.011 (0.050)	0.049 (0.046)	-0.060 (0.044)	0.125 (0.047) ***	0.309 (0.122) **
Log earnings disregard	0.003 (0.015)	-0.062 (0.031) **	0.005 (0.028)	0.047 (0.027) *	-0.008 (0.028)	0.021 (0.075)
<u>Work sanctions</u>						
Partial/partial	-0.059 (0.024) **	-0.078 (0.048)	-0.103 (0.044) **	-0.096 (0.042) **	-0.169 (0.046) ***	-0.133 (0.115)
Partial/full	0.006 (0.029)	0.016 (0.058)	0.012 (0.054)	0.095 (0.051) *	-0.049 (0.055)	0.287 (0.144) **
Full/full	0.039 (0.033)	0.129 (0.068) *	-0.019 (0.062)	0.180 (0.059) ***	-0.110 (0.062) *	-0.148 (0.164)
Comp. disqualification	-0.093 (0.027) ***	-0.171 (0.055) ***	-0.075 (0.050)	-0.302 (0.048) ***	-0.088 (0.052) *	-0.285 (0.132) **
Lifetime sanction	-0.009 (0.038)	-0.047 (0.078)	-0.036 (0.071)	-0.272 (0.068) ***	-0.064 (0.072)	-0.129 (0.189)
Log monthly min wage	-0.014 (0.119)	-0.123 (0.255)	-0.009 (0.220)	0.005 (0.208)	-0.188 (0.232)	-1.053 (0.587) *
Log20th wage percentile	-0.176 (0.124)	0.062 (0.255)	-0.026 (0.229)	-0.155 (0.220)	-0.309 (0.234)	1.253 (0.602) **
Republican governor	-0.032 (0.012) ***	-0.010 (0.024)	-0.050 (0.021) **	-0.050 (0.021) **	-0.045 (0.022) **	-0.083 (0.056)
Both houses Republican	-0.013 (0.017)	-0.045 (0.035)	-0.020 (0.032)	-0.008 (0.031)	0.030 (0.032)	0.034 (0.087)
Both houses Democratic	-0.004 (0.016)	0.040 (0.034)	-0.013 (0.030)	-0.040 (0.029)	-0.074 (0.031) **	0.040 (0.079)
Sample size	663	663	663	663	663	663

* Statistically significant at the 10 percent level; ** at the 5 percent level; *** at the 1 percent level. Standard errors in parentheses. The measure of caseloads (the dependent variables in these regressions) is equal to the log of the ratio of the number of FSP participants in each type of household to the estimated population in similar households. All regressions include state and year effects and all variables in Table 6-3. The state/year observations in these regressions are weighted by the relevant state population and are based on fiscal year data from 1987-1999 from all 50 states and DC.

Table 6-5
Effects of Economic Trends and Policy Changes on FSP Caseloads, Estimated Using All Additional Controls, State Time Trends, and Lagged Caseloads

	All FSP Participants	Single Adults with Children	Multiple Adults with Children	Adults Living Separately	Elderly Living Separately	Elderly with Others
Lagged caseloads	0.264 (0.029) ***	0.155 (0.040) ***	0.167 (0.040) ***	0.144 (0.038) ***	0.003 (0.039)	-0.188 (0.042) ***
Unemployment rate	0.420 (0.569)	-1.594 (1.657)	1.989 (1.455)	-0.053 (1.355)	1.678 (1.452)	7.222 (3.934) *
Unemployment rate, t-1	1.515 (0.590) **	0.984 (1.715)	4.004 (1.506) ***	2.084 (1.406)	-1.426 (1.521)	5.783 (4.042)
Unemployment rate, t-2	1.924 (0.476) ***	2.126 (1.361)	1.975 (1.218)	2.584 (1.134) **	0.024 (1.216)	3.897 (3.225)
Employment growth rate	-0.113 (0.174)	-0.089 (0.511)	0.520 (0.442)	-0.746 (0.412) *	0.635 (0.444)	1.559 (1.189)
EBT	0.037 (0.014) ***	0.059 (0.041)	0.048 (0.036)	0.055 (0.034)	0.087 (0.038) **	0.056 (0.095)
FSP error rate	0.858 (0.144) ***	-0.487 (0.393)	0.583 (0.205) ***	0.219 (0.218)	-0.349 (0.134) ***	-0.309 (0.131) **
Frequent recertification	-0.065 (0.023) ***	-0.072 (0.065)	-0.158 (0.053) ***	-0.154 (0.044) ***	0.028 (0.036)	0.130 (0.078) *
AFDC/TANF policy variables						
Time limit	-0.031 (0.015) **	-0.071 (0.043) *	-0.078 (0.037) **	-0.112 (0.034) ***	-0.112 (0.037) ***	0.082 (0.098)
Family cap	-0.022 (0.016)	-0.017 (0.048)	0.006 (0.042)	-0.093 (0.039) **	0.077 (0.043) *	0.304 (0.113) ***
Log earnings disregard	0.008 (0.010)	-0.048 (0.029) *	0.012 (0.025)	0.046 (0.024) *	0.004 (0.025)	0.005 (0.069)
Work sanctions						
Partial/partial	-0.044 (0.015) ***	-0.048 (0.045)	-0.070 (0.039) *	-0.103 (0.037) ***	-0.170 (0.041) ***	-0.157 (0.105)
Partial/full	0.034 (0.019) *	0.055 (0.054)	0.004 (0.048)	0.159 (0.045) ***	-0.027 (0.049)	0.420 (0.132) ***
Full/full	0.037 (0.022) *	0.073 (0.065)	-0.003 (0.056)	0.161 (0.051) ***	-0.102 (0.055) *	-0.014 (0.148)
Comp. disqualification	-0.081 (0.018) ***	-0.153 (0.053) ***	-0.041 (0.046)	-0.263 (0.044) ***	-0.076 (0.047)	-0.214 (0.122) *
Lifetime sanction	-0.037 (0.025)	-0.077 (0.076)	-0.038 (0.065)	-0.282 (0.062) ***	-0.067 (0.066)	-0.298 (0.175) *
Log monthly min wage	-0.062 (0.080)	-0.208 (0.247)	-0.125 (0.203)	0.363 (0.194) *	0.199 (0.217)	-0.737 (0.593)
Log 20th wage percentile	-0.003 (0.087)	0.023 (0.252)	0.163 (0.219)	-0.071 (0.206)	-0.293 (0.220)	1.235 (0.585) **
Republican governor	-0.023 (0.008) ***	-0.025 (0.023)	-0.049 (0.019) **	-0.024 (0.018)	-0.025 (0.019)	-0.119 (0.053) **
Both houses Republican	-0.014 (0.011)	-0.036 (0.033)	-0.026 (0.029)	0.000 (0.027)	0.037 (0.028)	0.018 (0.078)
Both houses Democratic	0.008 (0.011)	0.046 (0.032)	0.009 (0.027)	-0.025 (0.025)	-0.066 (0.028) **	0.016 (0.072)
Sample size	612	612	612	612	612	612

* Statistically significant at the 10 percent level; ** at the 5 percent level; *** at the 1 percent level. Standard errors in parentheses. The measure of caseloads (the dependent variables in these regressions) is equal to the log of the ratio of the number of FSP participants in each type of household to the estimated population in similar households. All regressions include state and year effects and all variables in Table 6-3. The state/year observations in these regressions are weighted by the relevant state population and are based on fiscal year data from 1987-1999 from all 50 states and DC.

Table 6-6
Effects of Economic Trends and Policy Changes on FSP Caseloads, Estimated Using An Alternative Measure of Caseloads Based on the Population of Relevant Age

	All FSP Participants		Single Adults with Children		Multiple Adults with Children		Adults Living Separately		Elderly Living Separately		Elderly with Others	
Unemployment rate	4.232	(0.546) ***	0.493	(0.640)	7.412	(0.855) ***	6.429	(0.914) ***	2.332	(0.886) ***	7.622	(1.877) ***
EBT	0.055	(0.023) **	0.099	(0.027) ***	0.063	(0.037) *	0.055	(0.038)	-0.107	(0.038) ***	-0.015	(0.079)
FSP error rate	0.950	(0.228) ***	0.904	(0.265) ***	0.715	(0.226) ***	-0.061	(0.232)	-0.452	(0.147) ***	-0.174	(0.110)
Frequent recertification	-0.112	(0.033) ***	-0.016	(0.038)	-0.224	(0.049) ***	-0.229	(0.047) ***	-0.050	(0.046)	0.020	(0.076)
AFDC/TANF policy variables												
Time limit	-0.031	(0.024)	-0.020	(0.028)	-0.067	(0.039) *	-0.115	(0.040) ***	0.033	(0.040)	0.096	(0.083)
Family cap	0.071	(0.022) ***	0.058	(0.025) **	0.089	(0.035) **	0.141	(0.036) ***	0.026	(0.036)	0.117	(0.074)
Log earnings disregard	0.029	(0.015) *	-0.034	(0.017) *	0.084	(0.024) ***	0.011	(0.024)	0.077	(0.024) ***	0.146	(0.051) ***
Work sanctions												
Partial/partial	-0.063	(0.028) **	-0.068	(0.032) **	-0.089	(0.045) **	-0.089	(0.046) *	-0.107	(0.046) **	-0.075	(0.094)
Partial/full	-0.106	(0.031) ***	-0.100	(0.036) ***	-0.127	(0.050) **	-0.046	(0.052)	-0.096	(0.051) *	0.059	(0.107)
Full/full	-0.117	(0.035) ***	-0.088	(0.041) **	-0.196	(0.056) ***	-0.058	(0.058)	-0.108	(0.058) *	-0.080	(0.120)
Comp. disqualification	-0.028	(0.025)	-0.029	(0.029)	-0.015	(0.040)	-0.107	(0.041) ***	-0.161	(0.041) ***	-0.105	(0.083)
Lifetime sanction	-0.029	(0.038)	0.014	(0.044)	-0.123	(0.060) **	-0.119	(0.062) *	0.051	(0.061)	0.028	(0.128)
Sample size	612		612		612		612		612		612	

* Statistically significant at the 10 percent level; ** at the 5 percent level; *** at the 1 percent level. Standard errors in parentheses. The "alternative caseload measures" (the dependent variables in these regressions) are equal to the log of the ratio of the number of FSP recipients in each type of household to the population of similar age. The "relevant population" is the number of persons under the age of 60 for families with adults and children, the number of persons between the ages of 18-59 for adults living separately, the number of persons age 60 and above for elderly living separately, and the entire population for elderly living with others and for all participants. All regressions include state and year effects. The state/year observations in these regressions are weighted by the relevant state population and are based on fiscal year data from 1987-1999 from all 50 states and DC.

Table 6-7
Effects of Economic Trends and Policy Changes on FSP Caseloads, Estimated Using All Additional Controls, State Time Trends, Lagged Caseloads, and an Alternative Measure of Caseloads Based on Population of Relevant Age

	All FSP Participants	Single Adults with Children	Multiple Adults with Children	Adults Living Separately	Elderly Living Separately	Elderly with Others
Lagged participation	0.264 (0.029) ***	0.215 (0.035) ***	0.170 (0.040) ***	0.138 (0.036) ***	-0.001 (0.040)	-0.224 (0.041) ***
Unemployment rate	0.420 (0.569)	-0.751 (0.799)	2.156 (1.384)	0.085 (1.266)	1.267 (1.355)	6.818 (3.618) *
Unemployment rate, t-1	1.515 (0.590) **	1.313 (0.831)	3.689 (1.432) ***	1.866 (1.314)	-1.186 (1.421)	7.030 (3.717) *
Unemployment rate, t-2	1.924 (0.476) ***	1.886 (0.665) ***	2.254 (1.160) *	3.090 (1.058) ***	-0.317 (1.131)	3.429 (2.974)
Employment growth rate	-0.113 (0.174)	-0.385 (0.245)	0.441 (0.420)	-0.314 (0.386)	0.716 (0.417) *	1.062 (1.085)
EBT	0.037 (0.014) ***	0.026 (0.020)	0.044 (0.034)	0.071 (0.031) **	0.077 (0.035) **	0.048 (0.089)
FSP error rate	0.858 (0.144) ***	0.380 (0.193) **	0.515 (0.194) ***	0.221 (0.202)	-0.296 (0.125) **	-0.249 (0.122) **
Frequent recertification	-0.065 (0.023) ***	-0.092 (0.032) ***	-0.129 (0.050) **	-0.146 (0.041) ***	0.033 (0.034)	0.132 (0.073) *
AFDC/TANF policy variables						
Time limit	-0.031 (0.015) **	-0.026 (0.020)	-0.096 (0.035) ***	-0.097 (0.032) ***	-0.068 (0.034) **	0.108 (0.090)
Family cap	-0.022 (0.016)	-0.030 (0.023)	-0.009 (0.040)	-0.076 (0.037) **	0.021 (0.040)	0.333 (0.105) ***
Log earnings disregard	0.008 (0.010)	-0.005 (0.014)	0.004 (0.024)	0.042 (0.022) *	-0.009 (0.023)	0.041 (0.063)
<u>Work sanctions</u>						
Partial/partial	-0.044 (0.015) ***	-0.025 (0.022)	-0.052 (0.038)	-0.131 (0.034) ***	-0.123 (0.038) ***	-0.141 (0.097)
Partial/full	0.034 (0.019) *	0.054 (0.026) **	-0.010 (0.046)	0.180 (0.042) ***	-0.006 (0.046)	0.427 (0.120) ***
Full/full	0.037 (0.022) *	0.046 (0.030)	-0.009 (0.053)	0.156 (0.048) ***	-0.060 (0.052)	0.089 (0.135)
Comp. disqualification	-0.081 (0.018) ***	-0.101 (0.025) ***	-0.060 (0.044)	-0.257 (0.041) ***	-0.050 (0.044)	-0.256 (0.113) **
Lifetime sanction	-0.037 (0.025)	-0.007 (0.036)	-0.050 (0.062)	-0.254 (0.057) ***	-0.080 (0.061)	-0.325 (0.159) **
Log monthly min wage	-0.062 (0.080)	-0.108 (0.111)	-0.165 (0.194)	0.358 (0.184) *	0.032 (0.199)	-0.846 (0.569)
Log 20th wage percentile	-0.003 (0.087)	-0.274 (0.122) **	0.360 (0.208) *	-0.293 (0.192)	-0.378 (0.205) *	0.559 (0.538)
Republican governor	-0.023 (0.008) ***	-0.024 (0.011) **	-0.050 (0.019) ***	-0.021 (0.017)	-0.025 (0.018)	-0.117 (0.049) **
Both houses Republican	-0.014 (0.011)	-0.018 (0.016)	-0.041 (0.027)	0.025 (0.025)	0.009 (0.027)	0.017 (0.070)
Both houses Democratic	0.008 (0.011)	0.013 (0.015)	0.003 (0.026)	-0.014 (0.023)	-0.063 (0.026) **	-0.021 (0.067)
Sample size	612	612	612	612	612	612

* Statistically significant at the 10 percent level; ** at the 5 percent level; *** at the 1 percent level. Standard errors in parentheses. The "alternative caseload measures" (the dependent variables in these regressions) are equal to the log of the ratio of the number of FSP recipients in each type of household to the population of similar age. The "relevant population" is the number of persons under the age of 60 for families with adults and children, the number of persons between the ages of 18-59 for adults living separately, the number of persons age 60 and above for elderly living separately, and the entire population for elderly living with others and for all participants. All regressions include state and year effects and all variables in Table 6-3. The state/year observations in these regressions are weighted by the relevant state population and are based on fiscal year data from 1987-1999 from all 50 states and DC.

Table 6-8

Effects of Economic Trends and Policy Changes on FSP Caseloads, Estimated Using An Alternative Measure of Caseloads Equal to the Number of Participants in Households without Non-Citizens

	All FSP Participants	Single Adults with Children	Multiple Adults with Children	Adults Living Separately	Elderly Living Separately	Elderly with Others
Unemployment rate	3.910 (0.577) ***	0.253 (0.638)	7.461 (0.892) ***	5.716 (0.901) ***	-1.991 (1.109) *	8.278 (2.025) ***
EBT	0.064 (0.024) ***	0.095 (0.026) ***	0.059 (0.038)	0.041 (0.037)	-0.099 (0.048) **	-0.034 (0.085)
FSP error rate	1.090 (0.236) ***	0.736 (0.259) ***	0.587 (0.221) ***	-0.016 (0.232)	-0.073 (0.149)	-0.118 (0.138)
Frequent recertification	-0.081 (0.035) **	0.017 (0.037)	-0.235 (0.051) ***	-0.260 (0.045) ***	-0.105 (0.052) **	0.030 (0.084)
AFDC/TANF policy variables						
Time limit	-0.015 (0.025)	-0.020 (0.028)	0.012 (0.041)	-0.085 (0.039) **	0.051 (0.049)	0.222 (0.089) **
Family cap	0.092 (0.023) ***	0.091 (0.025) ***	0.127 (0.036) ***	0.179 (0.036) ***	0.132 (0.045) ***	0.170 (0.081) **
Log earnings disregard	0.013 (0.016)	-0.051 (0.017) ***	0.086 (0.025) ***	-0.021 (0.024)	0.059 (0.030) **	0.215 (0.056) ***
Work sanctions						
Partial/partial	-0.069 (0.029) **	-0.065 (0.032) **	-0.115 (0.047) **	-0.070 (0.046)	-0.136 (0.058) **	0.008 (0.101)
Partial/full	-0.132 (0.033) ***	-0.118 (0.035) ***	-0.192 (0.052) ***	-0.069 (0.051)	-0.200 (0.064) ***	0.002 (0.117)
Full/full	-0.151 (0.037) ***	-0.138 (0.041) ***	-0.320 (0.059) ***	-0.103 (0.057) *	-0.075 (0.072)	-0.165 (0.130)
Comp. disqualification	-0.016 (0.027)	-0.012 (0.029)	-0.027 (0.042)	-0.061 (0.040)	-0.140 (0.051) ***	-0.144 (0.089)
Lifetime sanction	-0.028 (0.039)	0.027 (0.044)	-0.115 (0.063) *	-0.114 (0.061) *	-0.025 (0.076)	0.065 (0.141)
Sample size	663	663	663	663	663	663

* Statistically significant at the 10 percent level; ** at the 5 percent level; *** at the 1 percent level. Standard errors in parentheses. The caseload measure (the dependent variable in these regressions) is equal to the log of the ratio of the number of FSP participants in each type of household, counting only QC households without non-citizens (without non-citizen participants and without ineligible non-citizen household members). All regressions include state and year effects. These regressions are weighted by the state population and are based on fiscal year data from 1987-1999 from all 50 states and DC.