# 4: Recent Research on Food Stamp and TANF Receipt

Several other studies have analyzed recent trends in food stamp and TANF receipt. These studies employ a wide range of methods and come to different conclusions as to the effects of recent policy changes on FSP caseloads. This chapter summarizes many of these recent studies, highlighting key differences in findings and methods used. A summary discusses the main lessons of this previous research and how this report adds to the previous literature on FSP caseloads.

An earlier study by Moffitt (1999) was one of the first to use econometric methods to study public assistance receipt by state and year among subgroups of households, rather than among all households. This study used Current Population Survey (CPS) data to analyze AFDC receipt from 1977-1996. It estimated the effects on AFDC receipt of economic trends, state-level AFDC policy changes, and other variables measuring factors that could influence AFDC receipt. These variables are similar to the variables used in the widely quoted Council of Economic Advisers (CEA, 1999) study of trends in AFDC caseloads. Moffitt (1999) examined AFDC receipt among subgroups of women grouped by age and education, and found that AFDC waivers reduced AFDC caseloads, and that the effect was larger for less educated women. Although Moffitt (1999) analyzed AFDC rather than the FSP, and analyzed households grouped in a way that differs from the household types studied in this report, the general idea of analyzing subgroups of the caseload in Moffitt (1999) is continued in this report. Since this report, other studies of TANF and food stamp caseloads have provided additional insights.

## 4.1 Studies of the Determinants of Food Stamp Receipt

Prompted by recent, rapid declines in FSP caseloads and concerns about the effects of PRWORA, researchers have produced several studies of the determinants of food stamp receipt during the last few years. Most estimate the relationship between a measure of FSP caseloads and measures of economic trends and policy changes. These studies, which are summarized in Table 4-1, employ many approaches.

**Table 4-1: Some Studies of Food Stamp Program Caseloads**

| Study | Data, years analyzed | Policy measures used | Statistical methods | Some main findings |
|---|---|---|---|---|
| Wallace and Blank (1999) | Annual FSP caseloads (participants divided by population) by state and year, 1980-1996 | Indicator for state AFDC waiver<br>Max. AFDC benefit level | "Static model" without lagged caseload terms | Economy explains 28-44 percent of the 1994-96 caseload decline.<br><br>AFDC waivers explain 6 percent of the decline. |
| Ziliak, Gundersen, and Figlio (2001) | Annual FSP caseloads (participants divided by population) by state and year, 1980-1999. | Indicators for state AFDC waiver or TANF plans<br>Max. AFDC/FSP benefit level<br>EBT systems<br>ABAWD waivers<br>FSP error rates | "Dynamic model" with lagged caseload terms | Economy explains up to 24 percent of the 1996-99 caseload decline.<br><br>Waivers and TANF plans, EBT, and error rates explain none of the caseload decline. |
| Wilde et al (2000), based on Figlio, Gundersen, and Ziliak (2000) | Annual FSP caseloads (participants divided by population) by state and year, 1980-1998. | Indicators for state AFDC waivers or TANF plans<br>Max. AFDC/FSP benefit levels<br>EBT systems<br>ABAWD waivers | Static and dynamic models | Economy explains up to 56 percent of the 1994-98 caseload decline.<br><br>AFDC waivers and TANF explain 0-5 percent of the caseload decline. |
| Currie and Grogger (2001) | Annual FSP caseloads (participants divided by population) by state and year, 1980-98. Number of participants based on CPS data. | Indicators for state AFDC waivers or TANF plans<br>Max. AFDC/FSP benefit levels<br>EBT systems<br>FSP recertification periods<br>"Strong sanctions"<br>TANF grant diversion<br>Medicaid eligibility | Static model applied to entire caseload and several subgroups of households, such as single and married parent families, subgroups of households without children, and "low-income" families w/ income < 300 % of poverty. | Among low-income families, the economy explains 20% of the 1993-98 caseload decline; TANF explains 30 percent of decline. For some groups, EBT increased caseloads, and shorter recert. periods and sanctions reduced caseloads. |

| Study | Data, years analyzed | Policy measures used | Statistical methods | Some main findings |
|---|---|---|---|---|
| Gleason et al (2001) | Monthly FSP caseloads by month and state (from the FSP-QC data) from 1992-1999. | A single indicator for the post-PRWORA period;<br><br>3 indicators for "weak, moderate, and strong" AFDC/TANF:<br>1) "work requirement" policies,<br>2) "work encouragement" policies, and<br>3) time limit policies. | Monthly model with cubic time trend and other controls. | Economy explains 47 % of the 1994-99 caseload decline.<br><br>Strong work requirement policies (sanctions, limited exemptions, job search) explain 3% of the decline.<br><br>PRWORA indicator explains 26 % of the decline. |
| Jacobson et al (2000) | SIPP (Survey of Income and Program Participation) data from the early 1990s | Measures of TANF time limits, earned income disregards, AFDC/TANF work requirements, and child care subsidy programs. | Microsimulation models applied to predict how policy changes in the late 1990s could change caseloads | Half of the actual decline in caseloads after 1994 was predicted by the model.<br><br>Two-thirds of the predicted decline was due to economic trends, one-third was due to policy changes. |
| Zedlewski and Brauner (1999); Zedlewski and Gruber (2001) | Nation Survey of America's Families, 1997 and 1999 | None; not an analysis of caseload trends by state and year. | Studied FSP exit rates of TANF and non-TANF FSP participants | Former TANF recipients left the FSP at significantly higher rates than former non-TANF recipients. |
| The Decline in FSP Participation: A Report to Congress (USDA/FNS,2001) | Current Population Surveys, FSP-QC data, and other data | None | Estimated the percentage of the 1994-99 decline in FSP participation that was due to declines in the number of eligibles and that was due to changes in participation rates among eligibles. | About 35 percent of the decline was due to increased incomes that made fewer eligible. Over half of the decline was due to lower participation rates among eligibles. |

**Studies of state-level FSP caseloads**: Three previous studies -- as well as this report -- analyze recent trends in caseloads measured as the percentage of the population receiving food stamps in each state, for the past several years. This measure of caseloads is not the same as a "participation rate" among those eligible for food stamps but is nevertheless of interest. In these three studies, the number of food stamp participants in each state and year is obtained using administrative data, and an estimate of the population in each state and year is obtained using the CPS. The studies analyze the statistical relationship between FSP caseloads and state-level AFDC and TANF policies, economic trends, and general demographic and political trends. These studies employ somewhat different statistical models and highlight important methodological disagreements in this literature.

Wallace and Blank (1999) studied annual AFDC/TANF and total food stamp caseloads -- measured as the number of participants divided by population -- by state and year from 1980 to 1996. The study analyzed the relationship between this measure of FSP caseloads and

- current and lagged unemployment rates, and the median and twentieth percentile of weekly wages;
- variables that attempt to control for effects of political and demographic trends on FSP receipt;
- maximum AFDC benefit levels (a measure of program generosity); and
- the presence of a AFDC waiver in a particular state and year. [1]

The analysis of annual panel data finds that the decline in unemployment rates explains 28-44 percent of the decline in food stamp caseloads after 1994, and that a one-percent decrease in unemployment reduces food stamp caseloads by 6-7 percent. Waivers explain only 6 percent of the decline in food stamp caseloads. Much of the decline in caseloads after 1994 is not explained by any of these variables. This study also examines the determinants of food stamp receipt for two subgroups -- AFDC- and non-AFDC households -- and finds that AFDC waivers reduced food stamp receipt but increased non-AFDC food stamp receipt, possibly because some AFDC leavers continued to receive food stamps.

A later study by Ziliak, Gundersen, and Figlio (2001) analyzed annual aggregate food stamp caseloads as a proportion of the population by state and year from 1980 to 1999. The study examines the relation between these rates and:

[1] This study and other similar studies also use state fixed effects to control for cross-state differences in FSP that always occurred during these years, and year effects to control for year-to-year changes in nationwide FSP caseloads that are not explained by the other variables.

- current and lagged unemployment rates, and employment growth rates;
- the maximum combined AFDC/food stamp benefit
- measures of state-level political trends
- the presence of state-level AFDC waivers (pre-PRWORA) and TANF plans (post-PRWORA);
- the presence of EBT systems,
- the proportion of recipients who were not granted an exemption from the ABAWD rule because of residence in a high-unemployment area; and
- FSP error rates, assumed to be inversely related to administrative burdens on recipients.

While the model employed by Wallace and Blank employs a "static model," the model in Ziliak, Gundersen, and Figlio (2001) employs a "dynamic model" which includes state time trends and 4 lagged values of food stamp participation rates and economic variables. The authors argue that welfare caseloads generally respond sluggishly to economic trends, so the dynamic model is more appropriate. The study concludes that policy factors, as measured by waivers and TANF plans, EBT systems, and error rates, together explain *none* of the 1996-1999 change in caseloads. Macroeconomic variables explain 19-24 percent of the decline. The proportion of persons who were not exempt from the ABAWD rule explains one-quarter to one-third of the 1996-1999 decline, but the authors caution that this variable may be indicating that caseload declines were more rapid in states without areas of high unemployment.

In a similar study, drawing on econometric analysis by Figlio, Gundersen, and Ziliak (2000), Wilde et al (2000) show the results of an analysis of aggregate FSP caseloads as a proportion of the population by state and year from 1980 to 1998. In their static model, indicator variables measuring the implementation of AFDC waivers and TANF account for 5 percent of the decline in FSP caseloads from 1994 to 1998. In their dynamic models, with lagged values of caseloads, policy factors explain none of the decline in FSP caseloads, and economic trends explain up to 56 percent of the decline. While the preferred model varies in these three studies, none finds that policies had a large effect on FSP caseload trends.

**Household-level data on participation**: A study by Currie and Grogger (2001) analyzed the probability that several different types of households reported receiving food stamps. The study was based on the March Current Population Surveys from 1980-1998. The authors analyzed food stamp receipt reported by all households, those with incomes under 300 percent of the poverty line, single parent families, married parent families, married couples without children, elderly persons without children, and adults living alone. The study analyzed how reported food stamp receipt was related to:

- Current unemployment rates;
- The implementation of an AFDC waiver or TANF plan;
- The maximum AFDC/TANF benefit; and
- Several measures of the demographic characteristics of the family, and indicators of residence in a central city, the rest of a metropolitan area, or a rural area.

Currie and Grogger found that among low-income households, 20 percent of the decline in FSP receipt from 1993 to 1998 can be attributed to lower unemployment, and 30 percent to the implementation of TANF, as measured by the TANF indicator variable. The effect of TANF was especially large among single parent families and, unexpectedly, elderly and adults without children, a group that would not ordinarily receive TANF. The authors note that other policies or the perceived stigma of welfare could have led to these unexpected effects.

The study also estimated the effects of several measures of more specific policy changes. The adoption of EBT systems, which may make food stamps easier to use and reduce stigma, increased participation among married couples without children. Longer recertification intervals among working FSP households, a measure of less difficult reporting requirements, were associated with increases in FSP receipt among single parent households. The estimated effect of especially strong sanctions was sensitive to the inclusion of state time trend terms. The estimated effects of the presence of a TANF grant diversion and the youngest child's eligibility for Medicaid were negligible.

**Studies of caseload characteristics:** Gleason et al (2001) study the effects of state-level policy changes and economic trends on the number of food stamp participants, rather than the proportion of the population that received food stamps or the probability that a family receives food stamps. The FSP-QC data from 1992-1999 provide estimates of the number of participants. The study estimates the relation between several characteristics of FSP caseloads measured on a monthly basis -- including the number of participants -- and:

- Economic factors, as measured by unemployment rates, average wages in manufacturing jobs, and poverty rates;
- A single indicator for the post-PRWORA period;
- Three indicators for strong, moderate, and weak AFDC/TANF work requirement policies.
- Three indicators for strong, moderate, and weak AFDC/TANF work encouragement policies.
- Three indicators for strong, moderate, and weak AFDC/TANF time limit policies.
- A cubic national time trend and state fixed effects.

The classification of state TANF policies is based on a review of several sources. Strong TANF work requirement policies 1) exempt only those with children under 12 months, 2) require immediate participation, 3) require more than 20 hours of participation per week, 4) require job search, and 5) feature full family sanctions for noncompliance. Strong work encouragement policies feature relatively more generous earned income disregards and vehicle exclusion restrictions. Strong time limit policies allow 24 or fewer months of TANF benefits and relatively few exemptions. Strong work requirement policies caused the largest reductions in FSP caseloads, but the reduction was only about three percent once the authors controlled for economic and other factors. These strong work requirements appeared to cause relatively more disadvantaged recipients to leave the FSP. Low-intensity work requirements and work encouragement policies appeared to increase the number of FSP recipients.

The authors assessed the proportion of the 1994-1999 decline in FSP caseloads that could be explained by the measured factors. They found that economic trends explain 47 percent of the decline, TANF work requirements explain only 3 percent of the decline, and PRWORA (as measured by the single indicator variable that measures the timing of the law and is constant across states) explains 26 percent of the decline. About half of the share of the total decline explained by PRWORA could be explained by the rules for ABAWDs and non-citizens; the authors thought much of the rest of the effect of PRWORA could be attributed to effects on changes in attitudes about public assistance.

**Simulations of the effects of policies**: Jacobson et al (2000) studied the possible effects of policies in the late 1990s using microsimulation techniques. The study was based on longitudinal surveys (the SIPP) of program participation in the early 1990s. Using microsimulation techniques, this study estimated how policy changes and other factors would affect individuals' employment and earnings, receipt of AFDC or food stamps, participation in employment and training activities, and receipt of child care subsidies. The authors used these estimated relationships to predict how caseloads would change in the late 1990s as a result of the policy changes during these years. The estimated model could predict about half of the actual decline in FSP caseloads after 1994. Of the predicted decline, about two-thirds could be explained by economic trends and about one-third could be explained by changes in welfare and child care policies. The substantial, unexplained decline in participation could have occurred in part because of the effects of policies that were unlike those in existence in prior years.

**Results from the National Survey of America's Families**. A study of the 1997 National Survey of America's Families by Zedlewski and Brauner (1999) found that former TANF recipients left the program at significantly higher rates than those who had not received TANF. This result was obtained even for persons that had income well below the poverty line and that appeared to remain eligible for food stamps. This study found that about two-thirds of those who left the Food Stamp Program appeared to be still eligible for food stamps. An updated study (Zedlewski, with Amelia Gruber, 2001) of the 1999 NSAF reached similar conclusions. Other survey evidence presented in these studies suggests that administrative practices of the FSP made continuing participation difficult for working poor families.[2]

## 4.2 Studies of AFDC and TANF Receipt Using Panel Data

Researchers have used similar techniques to analyze trends in AFDC and TANF caseloads by state and year. These cash assistance programs aid mostly single adult households with children, and a smaller number of two-adult households with children and "child-only" cases. The studies of AFDC and TANF caseloads are relevant for studies of FSP caseloads because the rules of TANF and other policies may affect FSP caseloads through their initial effects on cash assistance caseloads. In addition, many similar specification issues arise in the studies of cash assistance and food stamps.

The widely quoted 1999 CEA study analyzed AFDC/TANF, as a proportion of the population under 65, by state and year from 1976-1998. The statistical model included current and lagged unemployment rates and controls for the minimum wage, the state maximum AFDC/TANF benefit, the presence of an AFDC waiver or TANF plan, state and year effects, and sometimes time trends. The study also used controls for specific welfare policy variables indicating family caps; termination or work requirement time limits, exemptions based on the age of the youngest child, work sanctions, and a measure of earnings disregards. The specification that used a simple indicator for the implementation of state TANF plans attributed about one-third of the 1996-1998 decline in TANF receipt participation to TANF policies, about 8 percent to the decline in unemployment, and most of the remaining decline to unknown factors. The study found that different TANF policies have different effects; for example, caseload declines were

[2] Another study by Daponte, Sanders, and Taylor (1999) randomly assigned about 400 households in Allegheny County, Pennsylvania to a treatment group that received information about food stamp eligibility and benefit levels, or to a control that did not receive this information. The treatment group was more likely to accept food stamps, and respondents eligible for the largest benefits were the most likely to obtain food stamps when given the information. The findings imply that lack of information and program participation costs can limit food stamp receipt.

more rapid in states with stronger sanctions.

Ziliak and Figlio (1999) found that welfare reforms play a far more modest role in recent TANF caseload declines. The use of a dynamic specification, including lagged measures of participation rates and business cycle factors, appears to explain much of the difference between the results obtained by this paper and the results of the CEA study. Ziliak and Figlio (1999) also found that waiver reforms reduce caseloads by a somewhat larger amount in states with relatively stronger economies.

Blank (2000) found that increases in child-only AFDC cases explain about 71 percent of the rise in AFDC caseloads from 1984 to 1996. (The FSP-QC data also reveal an increase in the number of child-only food stamp households after 1987). These child-only cases include children in foster care, children who are citizens but whose parents are non-citizens, and children whose parent(s) receive SSI. The increases in child-only cases were driven by increases in immigration, increases in the use of SSI among disabled mothers, changes in the foster care system, and sanctions that removed mothers from AFDC cases. These factors could also explain some of the increase in food stamp cases during these years. Increases in two-parent families receiving benefits through AFDC-UP, which was expanded to all states by 1990, also explains some of the increase in the total number of AFDC cases from 1984-1996. The remaining increase in single-parent AFDC participation is well explained by the usual variables. The study also found that trends in two-parent AFDC-UP caseloads have been more cyclically sensitive than trends in single-parent AFDC cases. These results provide additional evidence that economic and program factors may affect important subgroups of welfare caseloads in different ways.

## 4.3 Other Recent Research

Two reports divided the recent decline in the FSP caseload into a part that occurred because of declines in the number of eligible households, and a second part that occurred because of a decline in the proportion of eligible households that actually received food stamps. These studies estimated eligibility by using information from the Current Population Survey (CPS). *The Decline in Food Stamp Participation: A Report to Congress* (USDA/FNS, 2001) found that:

- About 35 percent of the decline in the number of FSP recipients from 1994-1999 occurred because rising incomes and assets reduced the number of persons who were eligible for food stamps.

- Another 8 percent of the decline occurred because of PRWORA's restrictions on food stamp eligibility among adult without dependents and non-citizens.

- The remaining 56 percent of the decline in the number of FSP recipients occurred because fewer eligible persons received food stamps. The percentage of eligible persons who received food stamps fell from 74 percent in 1994 to 59 percent in 1999.

The report noted that the take-up rate among eligible persons may have declined for many reasons, including a perceived lack of need for assistance, lack of information about eligibility, an expectation of low levels of benefits, the program's reporting requirements, and stigma associated with public assistance.

Wilde et al (2000) also analyzed the decline in the number of FSP recipients from 1994-1999 and reached similar conclusions. This study found that 26 percent of the decline occurred because of a decline in the number of persons in households with annual incomes below 130 percent of the poverty line. Another 55 percent of the decline occurred because of an increase in the proportion of low-income persons who may have been eligible for food stamps but who did not receive them.

Several studies found that many families are eligible for food stamps but are not receiving them. In a study based in the National Survey of America's Families, Loprest (2001) confirmed that a substantial number of TANF leavers also left the FSP even though their incomes indicate that they remain eligible for food stamps. Studies of food stamp "exiters" by Mills and Kornfeld (2000) and Rangarajan and Gleason (2001) also showed that many FSP exiters had very low incomes and appeared to qualify for assistance. A recent nationwide survey of providers of emergency food assistance (Ohls et al 2001) revealed that the demand for food assistance grew modestly in the late 1990s. Studies by Nord (2000) and USDA (1999) showed that the number of families reporting food insecurity remains high.

The distinction between a decline in the number of eligible households and the decline in the participation rate among eligible households is clearly a crucial one since many are concerned about whether the program is serving needy families. However, this distinction does not distinguish the effects of the economy and policy changes. Both the economy and numerous recent policy changes could have increased the earnings of many households, thereby reducing the number that remain eligible for food stamps. Similarly, both the economy and policies could explain the reduction in the proportion of eligible persons receiving food stamps. Policy changes, such as increases in reporting requirements, time limits, and sanctions, may have reduced the proportion of eligible persons who receive benefits. The presence of non-participating eligibles after PRWORA does not, however, confirm that recent policy changes led to a

decline in the participation because, as the USDA (2001) study showed, some eligible persons failed to receive food stamps even before PRWORA. As the economy improves, more eligible persons may turn away food stamps and accept increased assistance from friends and family; more eligibles will get jobs and qualify for low levels of benefits that are not worth the costs of participating in the FSP; and more eligibles will forego food stamps because they believe their earnings will soon increase.

## 4.4 Conclusion

These studies together provide numerous insights about the effects of economic and policy factors on food stamp and TANF receipt. The economy consistently explains a significant portion -- as much as about one-half -- of the recent decline in FSP caseloads. A large portion of recent changes in caseloads consistently remains unexplained by economic trends, policy changes, or other variables. In these studies, the statistical models and the measures of policy changes vary considerably. Together, these studies make several important points:

The estimated effects of simple indicators of "AFDC waivers," "TANF," and "PRWORA" vary widely. Some studies found that these policy measures explained very little of recent caseload changes. Wallace and Blank (1999), Ziliak, Gundersen, and Figlio (2001); Figlio, Gundersen, and Ziliak (2000); and Wilde et al (2000) found that TANF implementation dates either explained only a minor reduction in FSP caseloads or had statistically insignificant effects on FSP receipt. Other studies found larger effects. In Currie and Grogger (2001), TANF explained almost one-third of the reduction in food stamp receipt among low-income households from 1993 to 1998. In Gleason (2001), an indicator for the nationwide implementation of PRWORA explained about one-quarter of the decline in FSP caseloads from 1994 to 1999. These results are difficult to compare, in part because each study analyzes slightly different years. Differences in the models employed could explain some of the variation in results: Ziliak, Gundersen, and Figlio (2001) found negligible effects using a dynamic model with lagged caseload terms, while Gleason et al (2001) and Currie and Grogger (2001) found larger effects with static models.

A problem with these simple indicators of implementation of waivers, TANF, and PRWORA is that their policy implications are unclear. Their estimated effects could have been produced by specific sanctions, time limits, exemptions, or other policies, as well as changes in attitudes about public assistance. The

debate on PRWORA reauthorization is likely to focus on whether each of these specific policies should be changed, rather than simply the effects of "TANF" or "PRWORA."

Some studies estimated the effects of a limited number of more specific policy changes on FSP caseloads. Currie and Grogger (2001) estimated the effects of EBT, recertification periods, a group of "strong sanction policies," and diversion policies; and find that recertification periods reduce FSP receipt. Gleason et al (2001) showed that a combination of several "work requirement policies" explains only 3 percent of the recent caseload decline. The CEA (1999) study estimated the effects of more and less strict sanctions, exemptions, time limits, family caps, and other policies on AFDC caseloads but not FSP caseloads. These previous studies of FSP receipt do not, however, focus on the effects of several specific, important policies such as full family sanctions, comparable disqualification, or time limits.

These studies provided some evidence that the effects of policies vary by type of household. Gleason et al (2001) analyzes several subgroups of FSP household, such as those with single adults with children, households with TANF, and households with earnings. Wallace and Blank (1999) find that TANF and unemployment rates have different effect on TANF and non-TANF parts of the FSP caseload. Moffitt (1999) analyzed subgroups of AFDC participants defined by age and education, and Blank (2000) provides some information on subgroups of the TANF population.

The approach taken to analyze FSP households in Currie and Grogger is most similar to the approach taken in this report, although Currie and Grogger (2001) and this report define specific types of households in slightly different ways. Currie and Grogger study food stamp receipt for specific types of households by using data on food stamp use reported by CPS respondents, rather than by administrative data. The authors provide evidence that the estimated effects of key variables on aggregate FSP receipt as measured by survey and administrative data sources are very similar, so that even if the CPS understates aggregate FSP receipt, it may depict trends in receipt fairly accurately. Nevertheless, the two data sources could produce different findings for subgroups of households.

The preferred specifications in these studies vary widely. An important controversy in the literature concerns the use of "static" versus "dynamic" models of participation, and the use of more or fewer explanatory variables to control for factors that may influence FSP receipt. Ziliak, Gundersen, and Figlio (2001) argued that a dynamic models using lagged participation rates are appropriate because food stamp

caseloads may change sluggishly in response to economic and program factors. Public assistance recipients may be hired only after prolonged economic expansion and may wait until recertification before they leave. Low-income families may choose to exhaust their assets before they accept benefits during a downturn. Blank and others are concerned that the relationship between lagged and current caseloads can reflect the effect of policy changes and economic forces that this literature attempts to identify:[3] while lagged caseloads are related to current caseloads in a strictly mathematical sense, the underlying causes of caseload trends are more relevant. Accordingly, statistical models should explain caseload trends based on measurable economic and policy variables.

A similar controversy exists over the use of state-level time trends. Ziliak, Gundersen, and Figlio (2001) used state time trends to control for persistent increases or decreases in participation that cannot be explained by policy changes occurring in the middle of the observation period. A steady change in attitudes toward welfare could lead to such a trend. If the time trends are omitted, the estimated effects of welfare reform could reflect merely the continuation of these pre-existing trends. On the other hand, Wallace and Blank (1999) argued that the estimated effects of policy changes may be incorrectly reduced by the inclusion of state-specific time trends since both sets of variables trend up or down gradually over time. The use of controls for political and demographic trends in these models may also be questioned. If these factors affect FSP participation and are correlated with welfare reforms, then omitting these variables could lead to biased estimates of the effect of welfare reform. But including them could "overcontrol" for trends in FSP participation that were actually caused by policy changes, and also lead to biased estimates of the effects of policies.

The central problem is that researchers lack a clear-cut, perfect natural experiment that shows the effects of policies in a way that unambiguously controls for the effects of other factors. The natural experiment that arises from variation in FSP caseloads, economic trends, policy changes, and other factors by state and year can be highly informative but falls short of such a perfect experiment. Inevitably, policy changes, economic growth, and other changes often occurred together within states, and this "collinearity" of events can make it difficult to separate the effects of all factors. In this situation,

[3] Bell (2001) reviews these issues in greater detail.

additional explanatory variables may provide a more realistic estimate of the effects of policies, or they may obscure the real effects of policies.

The time period analyzed varies across these studies and could account for some differences in results. Although several studies analyzed FSP caseloads from 1980 onward, the studies that use QC data cover the period from the late 1980s to the present because the QC data are not available in previous years. Moffitt (1999) found that the number of years used in the analysis can affect the findings: the effect of waivers on AFDC receipt changes as the analysis period changes from 1977-1987 to 1987-1996. It is not obvious that the use of additional years provides more reliable findings. The use of a longer time series may be a strength because it covers two full business cycles, one of which took place without PRWORA. On the other hand, if the underlying relationship between caseloads and macroeconomic and policy factors changed from the early 1980s to late 1990s, then information from the early 1980s may be less useful.

This report adds to the previous literature in several ways. It analyzes trends in FSP receipt for persons in several types of households that are likely to be affected in different ways by economic trends and recent policy changes. Food stamp caseloads are measured using the QC administrative data, a large representative database of food stamp households that avoids reporting biases in survey data. This report analyzes the effects of a wide range of policy measures on FSP receipt, and also analyzes whether the main findings are sensitive to the statistical models employed. The next chapter describes the models and variables used in this report.