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Factors Affecting Food Stamp Certification Cost

Volume I

Abt Associates Inc.

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EXECUTIVE SUMMARY

The Federal and State governments spend approximately \$2 billion each year to administer the Food Stamp Program, that is, to deliver some \$11 billion in food stamps to needy households. Although much the smaller part of the total picture, administrative costs have drawn attention in recent years for two reasons. First, administrative costs have risen faster than would be expected solely on the basis of caseload changes or general inflation. Second, the costs per case differ dramatically from one State to the next: in Fiscal Year 1988, the Federal share of administrative costs per case per month ranged from \$5 to 23, excluding Alaska.

Very little empirical research exists to explain why costs vary across time periods or States. Accordingly the agency responsible for overall management of the Food Stamp Program, the Food and Nutrition Service (FNS) of the U.S. Department of Agriculture, commissioned the study whose results are reported here. The study addresses the question:

How do features of States' program environments affect their food stamp certification costs?

This question focused the study on a single category of administrative cost and a single possible cause of cost variation. Certification cost was chosen because it accounts for more than half of all administrative cost. It also represents the core of food stamp case management effort in the local offices: the work of determining whether applicants are eligible for food stamps and what their allotment should be, and updating these decisions as necessary to ensure accuracy. The focus on the program environment reflected a desire to learn about factors that State food stamp managers cannot be expected to control.

A second study objective, assuming that program environment does in fact have some influence on cost, was to examine the feasibility of adjusting States' reported certification costs to take program environment into account. If feasible, such a procedure would allow States' costs to be more comparable, with differences mainly reflecting management decisions rather than uncontrollable factors.

Study Design

The study involved data collection in four States: Alabama, Arkansas, Colorado, and New Mexico. In each State, time studies and surveys were carried out in local food stamp offices, and data were extracted from the State's automated case file system. In addition, nationwide data from the Integrated Quality Control System (IQCS) were used in numerous analyses.

Most of the study focuses on testing the workload hypothesis. The hypothesis contends that caseload characteristics and economic conditions vary in ways that require some States to do more case management work than others. The workload effect might occur in two ways. First, when a worker is performing a task, such as an initial certification, the task may take longer for some kinds of cases than others. Second, tasks such as processing changes in household circumstances may have to be performed more often for some kinds of households than others. If some States have unusually high concentrations of cases that require more time or more tasks, their certification costs would be expected to be higher than the costs in other States.

To test the hypothesis, the study examines the four major food stamp certification tasks: initial certification, recertification, monthly reporting, and interim changes. For each task, household-level multivariate models are estimated to see whether case characteristics or county economic conditions affect the length of time needed to complete the task (task length) or how often it is performed (task frequency). The individual analyses are then used to construct a workload index for each State, reflecting the extent to which its specific environment would be expected to generate more or less certification work than the national average.

Two additional hypotheses concerned a regional wage effect and a Public Assistance (PA) or cost allocation effect. The first hypothesis is simply that States facing higher prevailing wages will have higher costs. The second hypothesis stems from the fact that the Food Stamp Program pays the full Federal share of administrative costs for cases that are not receiving other public assistance (NPA cases), but pays only a part of the Federal cost for cases that also receive Aid to Families with Dependent Children (AFDC) or other forms of public assistance (PA cases). Because States do not distinguish between the two types of cases in their reported certification

costs, one would expect average costs per case to be higher in States with a low proportion of PA cases. These hypotheses are addressed by using national data to construct indices that reflect each State's wage environment and proportion of PA cases.

Findings

States' program environments clearly vary in ways that would be expected to cause differences in their certification costs.

Strong evidence was found to support all three of the major hypotheses about environmental effects on certification cost. An index was constructed for each effect, with values computed for the 50 States and the District of Columbia. As a measure of the importance of each effect, we compare the five States with the highest rankings on the index to the five with the lowest rankings:

- The five States with the highest values on the workload index would be expected to have costs at least 39 percent higher than the bottom five States on the index.
- The five with the highest wage index values would have costs at least 44 percent above those where general State wages are low.
- Reported costs for the five States with the smallest PA percentage would be 70 percent higher than in the States with the highest proportion of PA cases.

When the three indices are combined into a single composite index, the five States with the highest overall value would be expected to have costs 70 percent higher than the five States with the lowest values. This range of environmentally-related cost differences is much smaller than the range of actual costs (the five highest reported certification costs are over 260 percent greater than the five lowest). Nonetheless, the environmental effect appears large enough to have policy importance.

The key factors producing the workload effect are case characteristics and economic conditions associated with high caseload turnover and frequent changes in household circumstances.

Five factors were found to be the major sources of variation in predicted workloads across the States:

- the percentage of food stamp cases that have earned income;
- the percentage that have only non-program unearned income, that is, income from sources other than AFDC, General Assistance, Supplemental Security Income, or Social Security;
- the percentage of food stamp households headed by elderly persons (age 60 or over);
- the State's unemployment rate; and
- the change in unemployment rate from the previous year.

All of these factors are associated with volatility -- i.e., the propensity of cases to enter and leave the Food Stamp Program and to experience changes in their circumstances. Households with earned income or non-program unearned income (e.g., alimony) are typically more volatile than those with income from one of the major public assistance programs. Elderly households typically have fewer changes. Low unemployment rates tend to mean shorter stays on food stamps, and hence higher turnover, while rising unemployment leads to a high rate of new applications.

The workload effect occurs almost entirely because of environmental effects on how often tasks must be performed, not effects on how long it takes to perform them.

This finding is somewhat surprising. It seems logical that, for example, more complicated cases should need a longer recertification interview than simpler ones. Although some evidence of such relationships is found, the effects are quite weak and inconsistent across States. Average task times do vary dramatically across the four study States. For example, the average initial certification takes 42 minutes in Colorado and 97 in New Mexico. But the variation in task time is much more strongly related to State-level and office-level procedural factors than to case characteristics.

With respect to task frequency, however, strong and consistent effects emerged. Moreover, the effects estimated at the household level lead to potentially important differences in the amount of work States would be expected to perform. Comparing the top five and bottom five predicted values for each task, the States with the most demanding environments would perform more than twice as many initial certifications, 48 percent more monthly reporting tasks, 28 percent more recertifications, and 17 percent more interim

changes than the States at the opposite end of the spectrum. The combined effect is seen in the workload index, where the five States with the highest values would have to do at least 39 percent more work than the five lowest-value States, other things being equal.

Cross-state variation in reported certification cost results in part from differences in program environment.

It was not necessarily expected that differences in program environment would be reflected in the pattern of reported certification costs. Many other factors could be at work. For example, State policy decisions about certification tasks such as monthly reporting can determine the number of cases that will require worker effort in a month. Differing accounting practices lead States to assign different levels of indirect cost to the certification function. Indeed, striking policy variations and potentially important accounting differences are observed in the four study States.

As it turns out, however, the program environment effects clearly influence reported certification cost. The State values on the wage index, PA index, and workload index together explain about one-third of the cross-state variation in reported certification costs per case month. The remaining variation stems from policy and management decisions, accounting practices, and any additional environmental factors not captured in this analysis.

It would be feasible to adjust reported certification costs to take influence of environmental factors into account.

Although the analyses in this study were quite complicated and relied on special data collection efforts, a much simpler adjustment methodology could be developed. Developing wage and PA indices is straightforward. With minor modifications to the data collection form for the Integrated Quality Control System, an index incorporating the most important workload effects could be estimated from that data base alone. After applying these indices to reported cost figures, differences in States' adjusted costs will mainly reflect their varying policy decisions, management practices, and accounting conventions -- factors which State food stamp managers can be expected to influence.

The study shows that program environment does affect cost and that adjustments are feasible. Whether such an adjustment procedure is desirable,

and what effects are appropriately included, are issues that require policy decisions.

CHAPTER ONE

INTRODUCTION

The Food Stamp Program is a national program that is operated on a day-to-day basis by State and local food stamp agencies. Food stamp benefits, totaling \$11.1 billion in Fiscal Year (FY) 1987, are paid by the Federal government. The Federal and State governments share the cost of administering the program. States report their administrative expenditures quarterly to the Food and Nutrition Service (FNS) of the U.S. Department of Agriculture, the Federal agency responsible for the program. FNS reimburses approximately half of States' costs. In FY 1988, FNS reimbursed about \$1.1 billion of the \$2.2 billion that States spent to run the program.

States operate the Food Stamp Program in accord with national law and regulations, which require certain activities to be carried out but leave the States substantial discretion in how they meet those requirements. For example, regulations require each State to recertify periodically the eligibility of households receiving benefits. The State has considerable leeway, however, as in deciding how often a household should be recertified, what procedures shall be followed in the recertification, and what salary to pay the workers who conduct the recertifications.

In making these decisions, the State must balance performance objectives against cost. States wish to provide good quality service to their recipients. They also face some federally imposed performance requirements and incentives, such as a requirement to act on an application for benefits within 30 days and financial liabilities for benefits issued erroneously. A State may attempt to meet these performance objectives by investing in, for example, better qualified (and hence more highly paid) workers or more frequent recertifications. But in contemplating such an investment, the State must recall that it will pay half the cost.

Whether cost sharing is the best way to ensure cost-efficient management of the Food Stamp Program is periodically debated. Two patterns have been cited as evidence of problems with the present system. First, food stamp administrative costs have been rising substantially faster than the rate of inflation. Nationwide, the Federal share of administrative costs in FY 1988 amounted to \$13.24 per household per month, a 22 percent inflation-adjusted

increase over the FY 1985 cost (\$10.84 in 1988 dollars). Second, costs vary dramatically from State to State, ranging in 1988 from about \$5 per household per month in Ohio to \$23 in Arizona and \$44 in Alaska. Both patterns can be seen in certification costs alone as well as in total administrative costs. These patterns have been argued to indicate that the cost sharing mechanism is not enough to make States "hold the line" on administrative spending or that, at a minimum, the incentive encourages much more cost-efficiency in some States than others.

The difficulty in interpreting the statistics or considering the general policy issue is that little is known about what causes variations in administrative cost, either in the Food Stamp Program or in other comparable programs. The general rise in administrative costs may reflect new national requirements rather than less State-level efficiency. The differences among States' costs might stem from differences in their caseloads rather than their management abilities. The empirical research on these issues is very limited.¹

Study Objectives

FNS commissioned the present study as the first step towards obtaining empirical information the sources of change and variation in food stamp administrative cost. The central question for study is:

How do features of States' program operating environments affect their food stamp certification costs?

This question focuses the study on just one kind of administrative cost and on just one class of factors potentially influencing costs. Both restrictions deserve some comment.

Certification costs. When States report their administrative costs to FNS, they allocate the costs among several functions. Certification is the central and single largest function. It includes the activities in local food stamp offices that are needed to determine an applicant's eligibility, set

¹James Trask and David Budding, Food Stamp Administrative Cost Analysis. Cambridge, MA, Abt Associates Inc., 1981. Assessment of State Cost Allocation Methodologies and Other Factors that Influence Costs Assigned to Federal and State Public Assistance Programs. Washington, D.C.: Jack Martin & Co., 1987.

allotments for eligible households, and make any changes in eligibility status or allotment levels that become necessary over time. Certification costs are thus not only numerically important, accounting for over half of total administrative cost, but also represent the core caseload management activities of the Food Stamp Program.

Environmental factors. Four types of forces might cause certification costs to vary from one State or time period to another:

- **Environmental factors** -- for example, characteristics that make some caseloads more difficult than others to administer, and hence more costly.
- **Policy and procedures** established by States and local offices, such as decisions about how often cases are recertified.
- **Management efficiency**, as measured by the cost of achieving a given level of performance in a particular environment with a particular set of policies and procedures.
- **Accounting artifacts**, which may cause reported costs to differ even when real resource utilization does not.

Environmental factors were selected as the focus of the study for two reasons. First, these factors are the most susceptible to objective measurement, using statistics such as the percentage of the caseload with earnings or the local unemployment rate. Second, these are "uncontrollable" factors. A State food stamp manager must respond to them, but cannot directly influence them. In contrast, the manager presumably can control the State's policy and procedures, management practices, and accounting system.

If uncontrollable environmental factors have a systematic effect on certification cost, a valid measure of that effect could be useful in managing the Food Stamp Program at the national level. Suppose, for example, that the Federal government adopts a policy of reimbursing States for a fixed amount per case per month. Rather than having the same fixed reimbursement for all States, it could be adjusted for environmental factors: States with "expensive" program environments would get more than others. An adjustment procedure could also be useful without a change in reimbursement policy. For example, such an adjustment would allow FNS to identify States in which high costs cannot be explained by uncontrollable factors, and then work to

determine whether efficiency improvements might be possible in those particular States.

Accordingly, the study's objective is not only to examine the effect of environmental factors, but to explore the feasibility of adjusting States' reported certification costs. The adjustment procedure would take into account known characteristics of States' operating environments, so that the remaining cost differences would reflect only differences in the "controllable" factors of policy, efficiency, and accounting practices.

Data Sources

The study involved data collection in four States: Alabama, Arkansas, Colorado, and New Mexico. The main criteria for selecting States were diversity in reported certification costs,¹ availability of necessary data in the State's automated case files, and willingness to participate in the study.

Data collection occurred in two phases. Data collection was carried out in Alabama, Arkansas, and New Mexico in January-February 1988. After preliminary analyses, the data collection methodology was revised slightly and applied in Colorado in November-December 1988.

Three main data sources were used in each of the four study States²:

- **Time logs.** Eligibility workers in about 10 counties in each State maintained time logs for a period of approximately one month. Each time they completed a task for any food stamp case, they recorded the case identification number, the nature of the task, and the length of time to perform the task.

Workers recorded the time spent for PA food stamp cases as well as food-stamp-only cases. For tasks involving both food stamps and some other assistance program, they recorded the time spent for the whole task, not just the food stamp portion.

¹The Federal share of FY 1986 food stamp certification costs ranged from \$1.02 in Ohio to \$23.78 in Alaska. The 10th and 90th percentiles were \$3.16 and \$9.21. The figures for the study States were \$5.01 in Alabama, \$5.49 in Arkansas, \$3.57 in Colorado, and \$7.81 in New Mexico, thus representing the main range of reported costs.

²See Appendices 1A, 1B, and 1C for more detailed information on each data source.

Although all three hypotheses are considered here, the bulk of the report (and the study effort) focuses on the workload effect. We therefore describe that aspect of the study design first.

The general approach of the workload analysis is to examine specific tasks that are carried out as part of the food stamp certification function. Greatest emphasis is given to four primary tasks:

- **Initial certification**, which involves determining whether an applicant for food stamps is eligible and, if so, the amount of benefits for which the household qualifies. When a household's application is approved, it is certified eligible for a specified number of months (the certification period).
- **Recertification**, a re-examination of eligibility and benefit amount when a recipient household's certification period expires.
- **Monthly reporting**, mail-in reports of the household's monthly income and other circumstances pertinent to eligibility and benefits, which are required for certain categories of households.
- **Interim changes**, which are changes in circumstances that households are required to report at their own initiative rather than in the context of a scheduled event such as a recertification or monthly report.

In addition to the four primary tasks, certification includes a number of activities that we consider "supplementary" tasks for this analysis. These include, for example, following up on information generated by computer matches, conducting field investigations, and establishing claims against households who have received more benefits than their entitlement.

Focusing mainly on the four primary tasks, the analysis examines two general hypotheses about how environmental factors could affect workload. The first hypothesis is that environmental factors, particularly case characteristics, may affect task length. For example, when an eligibility worker is interviewing a food stamp applicant, one might expect a household with eight people and several sources of income to need a longer interview than a single-person household with fixed income from just one source.

The task length hypothesis is tested for eligibility workers for each of the four primary tasks. The time logs and automated case files are

combined to make a data set in which each record represents one instance in which a task was performed. The record indicates the nature of the task, the length of time the eligibility worker spent on it, and the characteristics of the household for which it was performed.

Multivariate models are estimated to see how the household characteristics affect the length of time the worker spends to complete the task. Variables describing policy or other non-environmental factors are deliberately omitted. Thus the models represent the effect of program environment in the "average" policy situation.

The second general hypothesis concerns task frequency. It holds that both caseload characteristics and local economic conditions may affect how often workers must perform particular tasks. For example, suppose that a State's caseload contains an unusually high concentration of households with earnings, whose income tends to fluctuate from month to month. Workers in that State would probably perform more interim changes each month, or process more changes on monthly reports, than if the caseload were less volatile. Changes in the local economic climate, providing more or fewer job opportunities, might also influence the number of new cases opening or old ones closing.

Our general approach to this analysis is to examine the frequency with which each of the four major tasks is performed for particular types of households. This analysis is conducted at the national level for tasks that are recorded in the IQCS data base (initial certification and recertification). Automated case file data from the four study States are used to analyze the other tasks. Multivariate models relate the probability that a case will require a task to its characteristics and the county's economic characteristics.

Understanding these household-level relationships between environmental characteristics and task length and frequency is the crucial first step. The next step is to find out whether the relationships make any difference in how much certification work particular States have to do. Do some States have concentrations of high-workload households? Or do the individual-level relationships tend to counterbalance each other when States' caseloads are considered in the aggregate?

To answer this question, we return to the IQCS data base. The various multivariate models are used to predict the expected frequency and length of the four primary tasks for each IQCS case, based on its characteristics. Thus, for example, the interim change model estimated for the study States is used to predict each IQCS case's probability of having an interim change in a given month. By averaging these probabilities across all IQCS cases for a State, we find the percentage of the caseload for which workers are expected to perform an interim change in an average month. Comparing these percentages in two States tells us whether, other things being equal, differences in their caseload composition would cause them to do different amounts of interim change work. Finally, all of the task length and task frequency estimates are combined to yield a general workload index for each State.

Although the workload effect requires the most extensive analysis, it is not the only important way that environmental factors influence FNS reimbursements for certification costs. The regional wage effect and the PA cost allocation effect are both hypothesized to operate at the State level rather than the household level. A State-level index is therefore constructed for each of these effects. These two indices are considered jointly with the workload index as a means for adjusting States' reported certification costs.

Organization of the Report

The next four chapters of the report present the results of analyses pertaining to the workload effect. They deal in turn with the four major tasks of initial certification, recertification, monthly reporting, and interim changes. Each chapter discusses the average time spent on the task by eligibility workers (based on time logs) and supervisors and support staff (based on worker surveys). It then describes the effects of environmental factors on task length (for eligibility workers) and task frequency. The results for all four tasks are combined and summarized in Chapter 6.

Chapter 7 examines some of the components of worker certification time not captured by the four primary tasks, including supplementary tasks and activities not connected with handling particular cases. These components of worker time are not hypothesized to show direct environmental effects, but are presented to put the four primary tasks in perspective.

Chapter 8 looks at what goes into certification cost apart from worker time. It emphasizes two areas where environmental effects are expected: wage rates and cost allocation. It also describes non-labor costs and indirect costs, for which no direct environmental effects are hypothesized.

Finally, Chapter 9 discusses the feasibility of adjusting States' reported certification costs to take environmental differences into account. It considers the relative importance of the workload, price, and cost allocation effects, and assesses the reliability of existing data as a basis for making adjustments.

CHAPTER TWO

INITIAL CERTIFICATION

When a household applies for food stamps, the local food stamp agency must obtain information about the household's circumstances, verify the information, determine whether the household is eligible and, if so, calculate the appropriate food stamp allotment. This process is called initial certification. An initial certification must be performed for every household that applies for the first time or re-applies after a period of not receiving food stamps.

The procedures for an initial certification differ from State to State and even from office to office within a single State. A fairly typical process¹ would include the following steps:

- An individual who wants to apply for food stamps visits the local office, where a receptionist provides information and an application form and instructions, and sets up an interview appointment in a few days. The individual may file the form immediately. Sometimes the application form is taken home to fill it out.
- An eligibility worker receives the signed and completed application form and any agency records of the applicant's past food stamp history a few minutes before the interview. The eligibility worker interviews the applicant to go over the application form and obtain detailed information about household members, income sources, and other eligibility-related factors.
- The eligibility worker verifies the information by checking applicant-provided documents and other data sources, making telephone calls to sources such as employers or landlords. Verification may be done either during the interview or subsequently (within the next few days). Sometimes applicants must return to bring documentation that they did not bring to the initial interview.
- The eligibility worker completes the work to determine eligibility and allotment amount. Often this step is wholly or partially automated. In any event, data are

¹Somewhat different procedures may be followed for households qualifying for expedited services. Households found ineligible may not complete all of the steps described.

posted to the automated case file system¹ (usually by a data entry clerk), and the paperwork documenting the certification is filed.

An initial certification involves an eligibility worker, sometimes a supervisor, and one or more support staff. The eligibility worker is the main actor, with specific responsibilities varying from State to State. The supervisor answers questions as needed and reviews the eligibility worker's work. Support staff may include a receptionist, a file clerk, a data entry clerk, or more generically defined staff carrying out some combination of these functions.

How much worker time a local agency has to reserve for initial certifications depends on two factors: how long each kind of worker spends to complete an initial certification, and how many initial certifications must be accomplished each month. Characteristics of the agency's caseload and the area it serves might influence both factors. For example, large households might be expected to take longer to certify than small ones, and a declining local economy might generate more applications than a strong economy. This chapter examines both the frequency and the average time devoted to initial certifications and the influence of environmental factors on each.

Eligibility Worker Time for an Initial Certification

Eligibility workers in the four study States spend quite different amounts of time to perform an initial certification. The average time in Colorado was 42 minutes, compared to 97 minutes in New Mexico. Alabama and Arkansas were in between, at 49 and 62 minutes, respectively. These averages cover all applications, including expedited service cases and denied applications.

The estimates are based on the time log study, in which workers recorded the amount of time they spent on a task immediately upon completing it. When asked in a survey how much time an initial certification takes, workers gave estimates that were about 50 percent longer than the time log

¹Data in the automated case file system typically provides the basis for issuing benefits. The master household file is continually updated, and a list of eligible households and allotment amounts is extracted just before benefits are issued.

estimates above, but with the same pattern of state-to-state variation. In general, the time log figures are considered more accurate, but it is possible that they understate the true time requirement slightly by failing to capture certain activities.¹

The most time-consuming part of the initial certification is the interview, which eligibility workers say accounts for about one-third to one-half of their effort. The post-interview paperwork -- working through the eligibility determination, calculating the allotment, and filling out the necessary forms -- accounts for 13 to 21 percent of the time. Verification can take nearly as long, at around 13 to 14 percent. This pattern is quite comparable across States.

The long average certification time in New Mexico -- 50 percent longer than the next highest State -- reflects a pattern that pervades nearly all certification tasks. Although several factors probably contribute, State staff most often mentioned the automated data processing system. The New Mexico system, which was less than a year old at the time of the study, is built around an interactive interview: screens prompt the eligibility worker for needed information, and the worker enters the data as the interview proceeds. Sometimes, however, slow response time delayed the interview or even caused the workers to complete the interview manually and enter the data in a separate session. New Mexico workers reported in surveys that these separate data entry sessions accounted for 18 percent of their initial certification time.

Case Characteristics' Effect on Eligibility Worker Time

It seems logical that some cases should be more difficult and take longer to certify than others. For example, a worker might need a long interview to get all of the relevant information from a large household with multiple sources of income, while completing the interview for a single-person household quite quickly.

¹For example, workers might have neglected to record on the time logs brief activities that were isolated from the rest of the certification task, such as a telephone call following up on a particular verification effort.

To test this hypothesis, data from eligibility worker time logs were linked to automated case file data on case characteristics. Regression analysis was then used to see how case characteristics influenced the length of time the eligibility worker spent on the initial certification. The analysis is discussed more fully in Appendix 2A.

The key question guiding the regression analysis is whether significant effects exist in a relatively consistent way across States. We therefore estimate models with the combined data from the four study States, and look for statistically significant relationships between case characteristics and task time.

The explanatory power of the regression equation as measured by the R^2 statistic is also of interest, but only secondary interest. The key question is whether case characteristics are significantly related to task time. If so, the R^2 indicates whether case characteristics are the main influence on task time or a minor influence. In many of the analyses in this study, we find that environmental factors do have significant effects, but they account for only a small part of the case-to-case and State-to-State variation.

In the present analysis, several case characteristics are associated with the length of the initial certification task when each State is examined separately. The patterns are not very consistent across States, however. No characteristic is significantly related to task time in the same direction in all four States.

When the four States are analyzed together, only three factors are significant: household size, the presence of shelter expenses or deductions, and the presence of SSI income (Exhibit 2.1). Each additional household member is estimated to add about two minutes to the initial certification. Having to record shelter expenses¹ adds two minutes, and households with SSI income tend to take five minutes less than others to certify.

¹The States' automated systems varied as to whether they recorded the shelter cost or the shelter deduction. Because worker effort appears to be caused by the need to obtain and record the shelter cost information, whether or not there is a deduction, the cost variable was preferred and used when available.

Exhibit 2.1

**FOUR-STATE POOLED REGRESSION MODEL FOR INITIAL CERTIFICATION
TASK TIME**

	<u>Coefficient</u> <u>(Standard Error)</u>
Household size	2.06*** (0.34)
Shelter expense/ deduction	2.11* (1.20)
SSI	-5.46** (2.25)
State ^a :	
Alabama	-37.83*** (1.71)
Arkansas	-51.51*** (1.91)
Colorado	-57.55*** (1.89)
Intercept	93.45
R ²	0.1845
Sample Size	4699

^a New Mexico is the excluded category. Coefficients for the other three States represent differences from New Mexico.

Standard errors in parentheses;

*** Statistically significant at the 1 percent level.

** Statistically significant at the 5 percent level.

* Statistically significant at the 10 percent level.

Source: Exhibit 2A.4

The surprising absence of other consistently significant relationships seems likely to result from several factors. First, differences in procedures can cause characteristics that add time in one State to have no effect in another. This is most dramatically demonstrated with respect to public assistance (PA) cases. One would expect PA cases, for which eligibility must be determined for AFDC as well as food stamps, to take longer to certify than NPA cases. This expected relationship appears in Arkansas and Colorado, where PA cases take 24 to 28 minutes longer than NPA cases. But Alabama shows the opposite pattern, with PA cases taking 14 minutes less, and no significant relationship appears at all in Colorado. Food stamp staff in Alabama suggest that the pattern results because separate offices handle PA and NPA cases, and procedural and staffing differences make the process in PA offices go more quickly. It is possible that similar forces are at work in Colorado, where some offices are specialized along PA/NPA lines.

A second factor underlying the findings is that some case characteristics cause work by their absence as well as by their presence. If a household reports no earnings on the application form, for example, the eligibility worker may be required to carry out a series of probes to validate the situation. If the household had earnings in the past, as revealed by the application form or a computer match, the worker may need to contact the employer to make sure that the employment has terminated. For applicants who say they have earnings and provide pay stubs, however, the worker's effort may actually be less.

Finally, it should be noted that case characteristics explain relatively little of the overall variation in how long the eligibility worker spends on an initial certification. Case characteristics explain only 1 to 13 percent of the variance in the single-state models. When data from all four States are pooled, the explanatory power of the model is greater (18 percent in Exhibit 2.1), but only because the States are explicitly represented in the model. Moreover, the coefficients of the case characteristic variables are relatively small; quite dramatic differences in States' caseloads would cause their predicted certification time to differ by only a few minutes.

The low explanatory power of the model does not mean that case characteristics are irrelevant. But many other factors also contribute to the variation in certification times. Differing practices and procedures across

States evidently cause a good deal of variation. So do procedural differences among offices within a State: when office indicators were included in the pooled model, the percentage of variance explained increased from 18 to 30 percent. Moreover, a particular interview or case may have special features that cause it to take a long time. Workers mention situations like a mother bringing an unruly child to the interview, an illiterate client, a non-English speaking client with no translator, or an emotionally disturbed client. These special situations are, of course, not well predicted by the data normally available on caseload characteristics.

Given these findings, we would not expect caseload differences to cause States to differ greatly in the average time required for an initial certification. That result is shown in Exhibit 2.2, which uses the model developed with the four study States to predict the average initial certification time in all States, given their caseload characteristics. No individual State is predicted to vary from the national average (60 minutes) by more than 1.6 minutes. In the four study States, the predicted differences account for hardly any of the very large time differences actually observed.

Supervisor and Support Staff Time for Initial Certification

Although the eligibility worker has the lead role in the initial certification, supervisors and support staff also play a part.

Whether a supervisor becomes involved in a particular initial certification is a matter of State and office policy and the circumstances of the particular certification. Sometimes the supervisor has to answer an eligibility worker's question -- for example, to explain policy on an unfamiliar point. The other common supervisory involvement is in reviewing the eligibility worker's effort, which may occur solely at the supervisor's discretion or may be guided by policy (e.g., office policy may require supervisors to review a certain proportion of each worker's initial certifications).

Supervisory involvement in initial certifications varies considerably in the study States. Arkansas supervisors indicate in surveys that they are involved in 25 percent of the initial certifications performed by their eligibility workers, while Colorado supervisors report a 60 percent involvement rate (Exhibit 2.3). When their involvement is required, they

Exhibit 2.2

PREDICTED ELIGIBILITY WORKER TASK TIMES FOR INITIAL CERTIFICATIONS,
BASED ON CASELOAD CHARACTERISTICS

STATE	Predicted Mean Time	Difference from National Average	STATE	Predicted Mean Time	Difference from National Average
Alabama	59.96	-0.37	New Jersey	60.23	0.10
Alaska	61.01	0.68	New Mexico	61.13	0.80
Arizona	60.97	0.64	New York	59.58	-0.75
Arkansas	59.44	-0.89	North Carolina	59.93	-0.40
California	61.91	1.58	North Dakota	60.41	0.08
Colorado	60.37	0.04	Ohio	60.36	0.03
Connecticut	60.58	0.25	Oklahoma	59.69	-0.64
Delaware	60.46	0.13	Oregon	59.73	-0.60
Dist. of Col.	59.76	-0.57	Pennsylvania	60.08	-0.25
Florida	59.23	-1.10	Rhode Island	59.47	-0.86
Georgia	59.18	1.15	South Carolina	60.12	-0.21
Hawaii	60.11	-0.22	South Dakota	61.19	0.86
Idaho	61.07	0.74	Tennessee	59.97	-0.36
Illinois	60.33	0.00	Texas	61.03	0.70
Indiana	61.30	0.97	Utah	60.92	0.59
Iowa	60.16	-0.17	Vermont	59.15	-1.18
Kansas	60.54	0.21	Virginia	59.70	-0.63
Kentucky	60.51	0.18	Washington	60.27	-0.06
Louisiana	60.59	0.26	West Virginia	61.54	1.21
Maine	59.76	-0.57	Wisconsin	61.69	1.36
Maryland	60.01	-0.32	Wyoming	61.10	0.77
Massachusetts	59.81	-0.52			
Michigan	60.28	0.05			
Minnesota	60.59	0.26			
Mississippi	60.27	-0.06			
Missouri	60.08	-0.25	NATIONAL MEAN	60.32	
Montana	60.66	0.33			
Nebraska	60.57	0.24			
Nevada	59.09	-1.24	10th percentile	59.44	
New Hampshire	59.38	-0.95	90th percentile	61.13	

Source: Exhibit 2A.5

Exhibit 2.3

SUPERVISOR AND SUPPORT STAFF TIME FOR INITIAL CERTIFICATIONS
(IN MINUTES)

	ALABAMA	ARKANSAS	COLORADO	NEW MEXICO	WEIGHTED AVG. ¹
SUPERVISORS:					
Mean Percent of Cases Involved in	50.02%	24.74%	59.39%	31.78%	
Average Time When Involved (Minutes)	16.49	22.68	13.11	34.68	
Expected Time per Instance the Task Occurs (Minutes)	7.86	6.30	7.36	14.41	8.30
SUPPORT STAFF:					
Expected Time per Instance the Task Occurs ² (Minutes)	15.54	15.71	13.22	18.10	15.47

¹Weights based on State food stamp caseloads.

²The estimates for Alabama, Arkansas and New Mexico include the mean number of minutes for filing, multiplied by the percent of supervisors who indicated that filing was usually performed for each task (unadjusted filing means are 1.77 minutes for Alabama, 1.93 minutes for Arkansas, and 2.24 minutes for New Mexico). Filing times were included in the support staff estimates in Colorado.

Sources: Exhibits 2B.1 and 2B.3

supervisor time spent on an initial certification averages about 8 minutes across the study States,¹ with a range from 6 to 14 minutes.

Support staff, who are virtually always involved in an initial certification, perform a variety of functions. Their effort can be divided into four general activities: interacting directly with clients (e.g., reception or screening), information handling (e.g., routing forms or calls or searching for client information), case processing (e.g., data entry, typing, copying), and filing. Several support staff may be involved in the initial certification for a case, although only one eligibility worker and one supervisor are typically involved.

Survey data indicate that support staff spend 13 to 18 minutes on an

minutes is spent on filing, and the rest of the time is roughly evenly divided between client interactions, information handling and case processing, with some variations in the pattern across States.

Caseload characteristics were not hypothesized to have an important influence on the amount of time supervisors and support staff spend on an initial certification. No time log data were collected for these types of staff, so the hypothesis cannot be directly tested. The small effects found for eligibility worker time, however, support the idea that no strong relationships exist for the other workers.

The Frequency of Initial Certifications

How much worker time will be needed for initial certifications depends not only on how long they take, but also on how often they happen.

out initial certifications for applicants who were found ineligible and denied benefits. In three of the four study States, denied applications range from 31 to 36 percent of approvals.¹ Thus, the total number of initial certifications performed in the average office each month is estimated at about 8 percent of the active caseload. Because the data on denied applications are quite limited, the remainder of this discussion focuses solely on approved initial certifications.

The initial certification rate (approved initial certifications as a percent of active cases) varies substantially across States. Eleven States had monthly initial certification rates above 10 percent in 1986, ranging to a high of 24 percent in Wyoming. At the opposite extreme, initial certifications amounted to less than 4 percent of the caseload in six States (see Appendix 2C, Exhibit 2C.1).

Environmental Effects on Initial Certification Rates

It is reasonable to believe that much of this variation stems from features of the State's program environment. The most commonly cited example is the economy's effect on new entries to the food stamp caseload: as the local economy declines or strengthens, one would expect to see the initial certification rate rise or fall correspondingly. Apart from such direct effects of the economy, States may differ in the proportion of "short-termers" on their caseload. If a State serves a large population of households who move on and off the rolls quickly, it will have to perform more initial certifications than a State predominantly serving long-term recipients.

Policy, too, may affect the initial certification rate. Many cases that are closed for procedural reasons, such as failure to appear for recertification or to submit a monthly report, re-apply for benefits a month or two later. This means that differences in States' recertification or monthly reporting policies could cause differences in the number of initial certifications that must be performed for such re-applicants. Because of this potential policy effect, one cannot simply assume that all cross-state

¹The estimate in Arkansas was 14 percent, but the available data on denied applications appeared to be less reliable than data in the other three States.

differences in the initial certification rate result solely from environmental factors.

The Integrated Quality Control System (IQCS) data base was analyzed to isolate specific characteristics of the caseload and local economic environment that increase the frequency of initial certifications. A logistical regression model was estimated, in which the probability of a household having an initial certification in the month before the QC review was treated as a function of various case characteristics and local economic conditions. The results are summarized in Exhibit 2.4 and discussed in more detail in Appendix 2C.

The model explains very little of the variance in the household's probability of having been certified last month, as indicated by the R^2 of less than one percent. This is not surprising. A household starts receiving food stamps at a particular point in time because of personal events, such as the family's main earner leaving the household. The model does not attempt to represent these events or the household's decision process. Rather, the model is structured to distinguish cases that receive food stamps for only a short time from longer-term participants. This is useful for predicting the number of initial certifications a State must conduct: a caseload with many short-term recipients will have a high turnover rate and hence require more initial certifications than a caseload made up of longer-term participants. Nonetheless, with this approach we cannot expect the models to be very successful at predicting which individuals joined the Food Stamp Program in the month before their Quality Control review.¹

¹To understand why this is so, suppose the caseload contains only two types of cases: short-term cases, which receive benefits for six months, and long-term cases, which receive twelve months of benefits. In any given month, initial certifications are conducted for 1/6 of the short-term cases and 1/12 of the long-term cases. If the model works perfectly, it will show that the short-term cases are twice as likely as the long-term cases to be in their first month of participation, and it will accurately predict the overall initial certification rate. But among the short-term cases, the model cannot distinguish the ones who were certified last month from those who were certified the month before. Thus, even if the model achieves its purpose perfectly, its R^2 will be far below 100 percent.

Exhibit 2.4

LOGISTICAL REGRESSION MODEL OF INITIAL CERTIFICATION RATE

INCOME SOURCE ^b	Coefficient (Standard Error)	Effect ^a
IM with earnings	0.1097 (0.0717)	0.0066
No IM with earnings	0.6057*** (0.0496)	0.0366
No IM without earnings	1.0693*** (0.0485)	0.0646
TYPE OF INCOME MAINTENANCE RECEIVED ^c		
GA ^d	0.1865*** (0.0575)	0.0113
SSI	-0.4182*** (0.0663)	-0.253
HOUSEHOLD COMPOSITION		
Multiple adults	0.0942** (0.0399)	0.0057
Preschoolers present	0.0971 (0.0651)	0.0059
Number of children	-0.1061*** (0.0178)	-0.0064
Number of preschoolers	-0.0647* (0.0378)	-0.0039
DEMOGRAPHICS OF HEAD OF HOUSEHOLD		
Male	0.1739*** (0.0391)	0.0105
Black	-0.3615*** (0.0414)	-0.0218
Age less than 30	0.2949*** (0.0412)	0.0178
Age greater than 59	-0.7238*** (0.0673)	-0.0437
SITE CHARACTERISTICS		
County Unemployment Rate (1981) ^e	-0.0252*** (0.0064)	-0.0015
State Unemployment Rate (1986)	-0.0345*** (0.0106)	-0.0021

Exhibit 2.4
(continued)

LOGISTICAL REGRESSION MODEL OF INITIAL CERTIFICATION RATE

Change in State Unemployment Rate (1985-1986)	0.1357*** (0.0254)	0.0082
Percent of Employment in Agriculture	0.0070*** (0.0024)	0.0004
Percent of Employment in Manufacturing	-0.0047*** (0.0018)	-0.0003
Small or Medium City	0.1051*** (0.0364)	0.0063
Intercept	-2.2365*** (0.0923)	-0.1351
Mean of dependent variable	0.0683	
R-Square	0.0063	
Sample Size:	60,102	

- a. The effect of each variable is calculated as $\bar{p} * (1 - \bar{p}) * b_j$, where \bar{p} = the average rate of initial certification and b_j is the logistic coefficient. It represents the impact on the probability of a one-unit change in the corresponding variable. See Appendix 2C for derivation.
- b. Income Maintenance (IM) is defined as income from AFDC, Social Security, SSI, and GA. The excluded category in this set is households with IM but no earnings.
- c. The excluded category is AFDC. Social Security does not appear because the estimated coefficient for the corresponding indicator was less than the estimated standard error.
- d. Includes miscellaneous income support programs as well as General Assistance.
- e. More recent county-level unemployment rates were not available. The 1981 county-level data are therefore used together with 1986 State-level data. The county-level data thus reflect the relative pattern within each State (which we are forced to assume is relatively constant over the five-year period).

Standard errors in parentheses;

***Statistically significant at the 1 percent level.

**Statistically significant at the 5 percent level.

*Statistically significant at the 10 percent level.

Source: Exhibit 2C.2

A more relevant test of the power of the model focuses on its ability to explain differences in States' initial certification rates -- that is, the number of initial certifications in a month as a proportion of the active caseload. Accordingly, the household-level model of the probability of initial certification was used to predict the initial certification rate for all States (Exhibit 2.5). These are rates predicted on the basis of each State's own environmental characteristics, assuming no policy differences.

The caseload and economic effects identified in the model seem to underly much of the cross-state variation in initial certification rates. Regression analysis was used to see how closely the 51 States' actual rates correspond to the rates predicted from their environmental characteristics.¹

The case characteristics related to high initial certification rates are, as expected, mainly those found in other research to be associated with short spells of food stamp participation. They tend to indicate attachment to the labor market, or at least likely opportunities in the labor market. The characteristics also tend to be associated with volatile cases -- that is, cases that are likely to experience changes in their circumstances.

Thus for example, households with no income from government programs (AFDC, SSI, GA, or Social Security) are three to six percentage points more likely than other households to have had an initial certification in the month before they were drawn for the IQCS sample. Households headed by an elderly person have an initial certification rate four percentage points below other households.

The economic variables also conform to expectations, although their interpretation is a bit complicated. High initial certification rates are found where the State unemployment rate has been growing, as would be expected. Leaving aside the change in unemployment, however, it is the low unemployment areas that have high initial certification rates. It seems that some households who are long-term recipients when unemployment is high become short-term recipients in better times. Thus the effect of low unemployment

¹The actual initial certification rates shown in Appendix 2C, Exhibit 2C.1 were regressed on the predicted rates in Exhibit 2.5.

Exhibit 2.5

PREDICTED INITIAL CERTIFICATION RATES BASED ON ENVIRONMENTAL FACTORS

STATE	Predicted Initial Certification Rate	Predicted Difference from National Avg. Due to Environmental Factors	STATE	Predicted Initial Certification Rate	Predicted Difference from National Avg. Due to Environmental Factors
Alabama	6.0	-0.4	Missouri	6.3	-0.1
Alaska	11.2	4.7	Montana	10.5	4.1
Arizona	9.3	2.8	Nebraska	9.4	2.9
Arkansas	5.1	-1.4	Nevada	7.6	1.1
California	7.4	0.9	New Hampshire	6.5	0.1
Colorado	10.3	3.8	New Jersey	4.8	-1.6
Connecticut	5.5	-0.9	New Mexico	8.2	1.7
Delaware	5.7	-0.7	New York	5.6	-0.8
Dist. of Col.	4.1	-2.3	North Carolina	6.0	-0.4
Florida	5.9	-0.6	North Dakota	7.3	0.9
Georgia	5.3	-1.1	Ohio	5.6	-0.9
Hawaii	8.8	2.3	Oklahoma	9.1	2.6
Idaho	10.3	3.8	Oregon	8.6	2.1
Illinois	4.8	-1.6	Pennsylvania	5.5	-0.9
Indiana	6.7	0.2	Rhode Island	5.6	-0.8
Iowa	7.9	1.4	South Carolina	4.8	-1.6
Kansas	7.9	1.4	South Dakota	10.0	3.5
Kentucky	8.0	1.6	Tennessee	6.7	0.2
Louisiana	6.7	0.3	Texas	9.9	3.4
Maine	8.0	1.5	Utah	10.1	3.6
Maryland	5.7	-0.7	Vermont	7.3	0.9
Massachusetts	6.5	0.0	Virginia	6.6	0.2
Michigan	4.3	-2.2	Washington	7.1	0.6
Minnesota	7.7	1.2	West Virginia	5.9	-0.5
Mississippi	5.4	-1.1	Wisconsin	7.3	0.8
			Wyoming	12.4	5.9
			NATIONAL MEAN	6.5	
			10th percentile	4.9	
			90th percentile	10.3	

Source: Exhibit 2C.3

is to reduce the number of long-term recipients on the caseload, to increase the relative proportion of short-term recipients, and hence to increase the initial certification rate.¹

These caseload and economic factors are responsible for considerable state-to-state variation in the initial certification rate. The household-level model of the probability of initial certification was used to estimate initial certification rates for all States (Exhibit 2.5). These are rates predicted on the basis of each State's own environmental characteristics, assuming no effect from policy or from other factors not explicitly represented in the model.

The predicted initial certification rates vary quite widely. Five States have predicted rates under 4.9 percent, while the five at the other end of the spectrum all have rates of 10.3 percent or above. This means that, other things equal, environmental factors would cause all of the high-rate States to do more than twice as much work on initial certifications as the low-rate States.²

Somewhat surprisingly, the unemployment measures make the strongest contribution to cross-state differences in predicted initial certification rates. In addition to having a strong relationship with the probability of initial certification, unemployment rates are often consistently high throughout one State and low in another. Thus, States tend to differ more in their unemployment rates than in the caseload characteristics that appear

¹Note that the initial certification rate, which is expressed as a percentage of active caseload, can be climbing even while the caseload is falling. Assume, for example, a caseload consisting of 1000 long-term and 1000 short-term cases. Assume further that the long-term cases have an initial certification rate of 3 percent (i.e., 30 per month), while the short-term cases have a rate of 7 percent (70 per month). The overall initial certification rate is 5 percent $[(30 + 70)/2000]$. If 100 long-term cases leave, the overall certification rate grows to 5.1 percent $[(27 + 70)/1900]$.

²Throughout this report, we assess the importance of environmental effects in terms of the difference in predicted workload between the two ends of the distribution. To eliminate the effect of outliers, we compare the fifth State from the top with the fifth from the bottom (i.e., the 90th and 10th percentiles). Statistical significance of the States' differences from the national mean is not used because, given the large sample sizes, quite small differences can be statistically significant.

strongly in the model. Nonetheless, three caseload composition factors also make important contributions to the predicted differences: the proportion of elderly-headed households, the proportion of cases without program income (IM) but with earnings, and the proportion with neither program income nor earnings.

Total Worker Time for Initial Certifications

Given information about the time spent to complete an initial certification and the initial certification rate, we can estimate total worker time requirements for initial certifications. At the predicted national average rate, a local office will have to perform 65 approved initial certifications each month for every 1,000 households in its active caseload. The average initial certification is estimated to need about 60 minutes of effort from an eligibility worker, 8 minutes from a supervisor, and 15 minutes from support staff.

The program environment in a given office can alter this requirement substantially. Caseload characteristics and economic conditions exert a strong influence on the initial certification rate, which affects the requirement for all three types of workers. Caseload characteristics also have a small additional effect on the time required for an eligibility worker to perform an initial certification. The net effect of these factors is summarized in Exhibit 2.6, which shows the predicted eligibility worker time needed each month to handle initial certifications for a caseload of 1,000. On average, the caseload of 1,000 will require 88 hours of eligibility worker time for initial certifications.¹

The results across States generally follow the pattern for initial certification rates. The State with the fifth most difficult environment must spend more than twice as much eligibility worker time on initial certification as the State with the fifth least demanding environment. Although the figures for individual States are subject to some imprecision because of sampling error, the overall pattern clearly demonstrates substantial differences across States.

¹This estimate includes an adjustment to include initial certifications that end in denial of benefits. The number of actions is inflated by 34.5 percent, the median rate in the four States.

Exhibit 2.6

PREDICTED TOTAL ELIGIBILITY WORKER TIME: INITIAL CERTIFICATION

STATE	Predicted Hours Per Thousand Cases	Predicted Difference from National Avg. Due to Environmental Factors	STATE	Predicted Hours Per Thousand Cases	Predicted Difference from National Avg. Due to Environmental Factors
Alabama	82.3	-5.7	Missouri	86.2	-1.8
Alaska	152.3	64.3	Montana	143.3	55.3
Arizona	127.0	39.0	Nebraska	128.5	40.5
Arkansas	68.8	-19.2	Nevada	100.9	12.9
California	101.6	13.6	New Hampshire	87.2	-0.8
Colorado	139.8	51.8	New Jersey	65.4	-22.6
Connecticut	75.3	-12.7	New Mexico	112.7	24.7
Delaware	78.0	-10.0	New York	76.2	-11.8
Dist. of Col.	55.6	-32.4	North Carolina	82.6	-5.4
Florida	79.7	-8.3	North Dakota	96.7	8.7
Georgia	72.8	-15.2	Ohio	75.6	-12.4
Hawaii	119.4	31.4	Oklahoma	124.1	36.1
Idaho	141.6	53.6	Oregon	115.6	27.6
Illinois	65.7	-22.3	Pennsylvania	74.8	-13.2
Indiana	91.6	3.6	Rhode Island	75.6	-12.4
Iowa	106.5	18.5	South Carolina	66.1	-21.9
Kansas	108.0	20.0	South Dakota	137.8	49.8
Kentucky	110.4	22.4	Tennessee	90.5	2.5
Louisiana	92.2	4.2	Texas	136.2	48.2
Maine	107.5	19.5	Utah	137.6	49.6
Maryland	77.6	-10.4	Vermont	98.4	10.4
Massachusetts	87.5	-0.5	Virginia	89.3	1.3
Michigan	57.6	-30.4	Washington	96.4	8.4
Minnesota	104.6	16.6	West Virginia	82.1	-5.9
Mississippi	73.7	-14.3	Wisconsin	99.6	11.6
			Wyoming	170.3	82.3
			NATIONAL MEAN	88.0	
			10th percentile	66.1	
			90th percentile	139.8	

Source: Exhibit 2D.1

Even greater variations exist across the offices in a single State, as would be expected. Using a somewhat different methodology, requirements per 1,000 cases were projected for each office in the four study States. Eligibility worker time requirements are estimated to range from 17 to 108 hours per month in Alabama, for example, and 28 to 218 hours per month in Colorado (Appendix 2D).

Conclusion

Differences in States' caseload composition and their economic conditions can cause quite dramatic differences in the amount of worker time needed for initial certification -- and hence in their expected cost.

Not all cost differences stem from measurable environmental factors. Such factors explain 42 percent of the cross-state variation in the volume of initial certifications that must be conducted each month. But they account for hardly any of the observed difference (in the four study States) in the amount of worker time devoted to the average initial certification. Policy and procedural differences as well as unmeasured environmental factors doubtless contribute to actual differences in States' costs for initial certification.

The most important environmental influence on how much worker time is needed for initial certifications is the local unemployment rate, including both the absolute level of unemployment and the annual change in unemployment. Key caseload characteristics are the proportion of cases with a head of household over age 59 and the proportion of cases without AFDC or other programmatic income, especially the proportion of such cases with earnings.

CHAPTER THREE
RECERTIFICATION

A household approved for food stamp benefits is certified eligible for a specified period of time. At the end of this certification period, which commonly lasts either six or twelve months, the household must be recertified in order to continue receiving benefits. The recertification involves a thorough review of the household's current circumstances to find out whether the household is still eligible for food stamps and, if so, to establish the appropriate allotment.

The recertification is much like the initial certification in terms of the activities involved. It begins somewhat differently: rather than the household initiating the process, a letter is sent to the household explaining the requirement for a recertification (and perhaps scheduling an appointment). Before the interview occurs, a clerk will usually retrieve the household's case folder and may print out the most current information from the automated files.

When the client appears for the recertification interview, the eligibility worker covers essentially the same points as in the initial certification. The main difference is that the case folder already contains much of the necessary information. Indeed, if the information in the folder is correct and up-to-date, the recertification interview may proceed very quickly. In that case, the interview mainly consists of questions intended to make sure that the household's circumstances have not changed. If a change has occurred, the worker must obtain information about the change and determine how the new circumstances affect the household's eligibility and allotment.

The follow-up work after the recertification interview is again similar to that for initial certification. Verifications may be required for new information. Notification about the outcome of the recertification may be necessary, particularly for households who are determined ineligible. Some information must be posted to the automated system -- at a minimum, for households that are still eligible and have no changes in their circumstances, the new certification period must be recorded.

How much worker effort a State must reserve for recertifications depends on how many recertifications must be performed as well as how long it takes to complete one. Both factors might reasonably be affected by features of the program environment. A complicated case could take longer to recertify than a simpler one. A volatile household -- one whose circumstances are considered likely to change -- might be assigned a short certification period, and hence require more recertifications during a defined term than a less volatile case. These relationships and their impact on worker time are examined below.

Eligibility Worker Time for a Recertification

Eligibility workers in the four study States spent an average of 32 to 73 minutes to complete recertifications that they recorded in time logs. The time spent was shortest in Colorado and longest in New Mexico, with Arkansas and Alabama at 43 minutes and 47 minutes, respectively. The differences across States thus follow the same pattern seen in the time for initial certifications.

The interview is the most time-consuming part of the recertification. In survey responses, workers estimate that the interview takes 40 to 50 percent of the total time for the recertification. The follow-up paperwork needed to record the results of the recertification and post them to the automated system is the other task requiring substantial time, ranging from 15 to 25 percent of the recertification effort.

Case Characteristics' Effect on Eligibility Worker Time

Because the recertification closely resembles the initial certification, one would expect case characteristics to have a similar effect on how long it takes an eligibility worker to complete the two tasks. Regression analyses similar to those described earlier for initial certification were therefore carried out for recertification. The results generally bear out expectations.

When data for the four study States are combined, four factors are found to have statistically significant effects: household size, medical expenses or deductions, dependent care expenses or deductions, and the presence of unearned income from sources other than government programs. (See

Exhibit 3.1 and Appendix 3A.) The marginal time added by a household member is about one minute in the recertification model, compared to about two minutes for an initial certification. The other factors, which were not statistically significant in the initial certification model, add three to nine minutes.

The most striking result, as in the analysis of initial certification, is the small amount of variation in recertification time explained by case characteristics. The individual State models explained 3 to 12 percent of the variance. In the pooled analysis, case characteristics by themselves explain only about 3 percent of the variance. Adding the State indicators, as in Exhibit 3.1, raises the explanatory power to 21 percent. When indicators are included for each office in order to represent differences in office procedures, the figure climbs to 29 percent. Thus it appears that procedural variations or similar factors operating at the State and office

recertification time.

Given these findings, case characteristics would not be expected to cause much difference in the length of time eligibility workers in different States spend on a recertification. This hypothesis was tested by using the model shown in Exhibit 3.1, together with IQCS data on caseload characteristics in the 50 States and the District of Columbia, to project the expected average eligibility worker time for a recertification in each State. The projected national mean is 45 minutes, and no State's projected time varies from that mean by more than 1.5 minutes (see Exhibit 3A.4 in Appendix 3A). The actual variation in the four study States is far greater than that projected on the basis of caseload characteristics alone.

Supervisor and Support Staff Time for Recertifications

The supervisor's role in recertifications is quite similar to that for initial certifications. Supervisors answer eligibility worker questions

Exhibit 3.1

FOUR-STATE POOLED REGRESSION MODEL FOR RECERTIFICATION TASK TIME

	<u>Coefficient</u> <u>(Standard Error)</u>
Household size	1.21*** (0.20)
Medical expenses/deductions	9.11*** (1.29)
Dependent care expenses/ deductions	5.42** (2.39)
Unearned income from sources other than AFDC, GA, SSI, or Social Security	3.24*** (0.78)
State ^a :	
Alabama	-27.11*** (1.15)
Arkansas	-30.33*** (1.25)
Colorado	-40.26*** (1.30)
Intercept	67.75
R ²	0.2136
Sample Size	4251

^a New Mexico is the excluded category. Coefficients for the other three States represent differences from New Mexico.

Standard errors in parentheses;

*** Statistically significant at the 1 percent level

** Statistically significant at the 5 percent level

* Statistically significant at the 10 percent level

Source: Exhibit 3A.3

When involved, supervisors report spending an average of 15 to 26 minutes on a recertification. Combining the average time with the involvement rate, the expected supervisor time for a recertification ranges from five to eight minutes (Exhibit 3.2). For the four study States together, the average recertification is expected to require about six minutes of supervisor time, compared to about eight minutes for initial certifications.

Support staff are virtually always involved in recertifications, especially in the post-interview stages of processing the information and paperwork generated by the recertification. Based on support staff survey responses, they typically spend 13 to 18 minutes on a recertification, slightly less than the time for an initial certification.

Frequency of Recertifications — Background and Expectations

Although recertification resembles initial certification in many respects, the two tasks are initiated by quite different events. An initial certification occurs when a household that is not receiving food stamps decides to apply. A recertification occurs when a recipient household's period of certified eligibility is about to expire.

The number of recertifications a State must perform in a month appears at first to be entirely determined by policy. For example, if a State assigns six-month certification periods to all cases, one might expect the monthly number of recertifications to equal one-sixth of the caseload. States assigning longer average certification periods would be expected to perform fewer recertifications, and conversely.

Certification policy is not the whole story, however. Not all cases that enter a certification period are recertified at the end. Some cases are closed before the end of the certification period. Other households never respond to the recertification notice or call up and ask to have their case closed.

Moreover, some households are recertified early, before their certification period expires, if information becomes available that indicates the need for a general review. The information may be reported by the household or it may come from some external source, such as a computer matching or another assistance program.

Exhibit 3.2
 SUPERVISOR AND SUPPORT STAFF TIME FOR RECERTIFICATIONS
 (IN MINUTES)

	ALABAMA	ARKANSAS	COLORADO	NEW MEXICO	WEIGHTED AVG. ¹
SUPERVISORS:					
Mean Percent of Cases Involved in	41.10%	22.13%	50.84%	21.50%	
Average Time When Involved (Minutes)	15.26	18.98	17.03	25.93	
Expected Time per Instance the Task Occurs (Minutes)	5.90	4.78	7.78	7.60	6.25
SUPPORT STAFF:					
Expected Time per Instance the Task Occurs ² (Minutes)	14.54	17.63	12.60	17.29	15.24

¹Weights based on State food stamp caseloads.

²The estimates for Alabama, Arkansas and New Mexico include the mean number of minutes for filing, multiplied by the percent of supervisors who indicated that filing was usually performed for each task (unadjusted filing means are 1.77 minute: for Alabama, 1.93 minutes for Arkansas, and 2.24 minutes for New Mexico). Filing times were included in the support staff estimates in Colorado.

Sources: Exhibits 2B.1 and 2B.3

Although State and local policies clearly have an important impact on the number of recertifications that will have to be performed in a given month, features of the program environment may also have a role. In the latter regard, we pose two main hypotheses:

- Food Stamp Program regulations indicate that relatively short certification periods should be assigned to cases that are likely to experience changes, and longer periods to more stable cases.¹ A State with a high proportion of volatile cases would therefore be expected to assign shorter certification periods, on average, than a State with mainly stable cases.
- Any case characteristics or local economic conditions that are associated with early exits from the Food Stamp Program (such as households having earnings, or an improving local economy) may also be associated with cases closing before their certification period expires. Hence a State with a more volatile caseload or more favorable economic conditions might expect to do fewer recertifications per month than a State with the opposite conditions.

These two hypotheses work at least partially in opposite directions, because volatile cases are expected to have shorter certification periods but also to be more likely to close before their recertification. Thus the direction of the net effect cannot be determined in advance.

Recertification Frequency — Analysis Results

Nationwide, 10.5 percent of the food stamp caseload is recertified and approved for continued assistance each month. This estimate is based on the Fiscal Year 1986 IQCS data which record the nature and date of the most recent action taken for each case in the sample. The IQCS data provide no information on cases that are found ineligible at recertification. In the four study States, however, the number of cases that appeared for their recertification interview but were found ineligible was only about 4 to 10 percent of the number approved. Thus the number of approved recertifications

¹National policy allows longer certification policies for cases subject to monthly reporting, which tend to be the volatile cases. Because monthly reporting policy varies across States, however, we would still expect to see, on average, somewhat shorter certification periods for more volatile cases.

is only a slight underestimate of the number of recertifications actually performed.

The recertification rate (i.e., the proportion of the active caseload with approved recertifications each month) varies widely across States. Seven States have recertification rates under 7 percent, while six have rates above 15 percent (see Appendix 3B, Exhibit 3B.2). The recertification rates generally reflect the pattern of certification periods assigned, but not fully.

Multivariate analysis indicates that policy is not the only factor influencing the recertification rate. Case characteristics and economic conditions also have an effect, as summarized in Exhibit 3.3 and discussed in Appendix 3B. In particular, cases with earnings are two percentage points more likely to be recertified in a given month than cases with program income (usually AFDC) and no earnings. Households headed by an elderly person are three percentage points less likely to be recertified than those aged 30-59, other things being equal. These two findings reflect dominant themes in recertification policy, which assigns short certification periods to cases with earnings and long periods to elderly households.

The results also show the effect of some types of cases leaving the Food Stamp Program sooner than others. Households headed by males or by persons under 30 years old and households in areas with declining unemployment have fewer recertifications than average.

These effects mean that cross-state differences in program environment would cause some difference in recertification workload, but not such dramatic differences as seen for initial certification. The model shown in Exhibit 3.3 was used to project the recertification rate that would be expected in each State, based solely on its caseload and local economic conditions (Exhibit 3.4). The five States with the most favorable circumstances would conduct recertifications for 9.9 percent or less of their caseload. The five with the most difficult situation would have to conduct recertifications for at least 12.7 percent. Thus the five highest States would have to do a minimum of 28 percent more recertifications than the five lowest ones.

Exhibit 3.3

LOGISTICAL REGRESSION MODEL OF RECERTIFICATIONS RATE

	<u>(Standard Error)</u>	<u>Coefficient Effect^a</u>
INCOME SOURCE^b		
IM with earnings	0.2329*** (0.0501)	0.0230
No IM with earnings	0.2144*** (0.0410)	0.0212
No IM without earnings	0.1653*** (0.0462)	0.0165
TYPE OF INCOME MAINTENANCE RECEIVED^c		
GA ^d	0.0973** (0.0435)	0.0096
SSI	-0.0886** (0.0430)	-0.0088
HOUSEHOLD COMPOSITION		
Multiple adults	0.0578* (0.0325)	0.0057
Number of preschoolers	0.0348* (0.0210)	0.0034
Number of children	-0.0335** (0.0178)	-0.0033
Children present	0.1001** (0.0480)	0.0099
DEMOGRAPHICS OF HEAD OF HOUSEHOLD		
Male	-0.0678** (0.0343)	-0.0067
Black	0.0679** (0.0291)	0.0067
Age less than 30	-0.1088*** (0.0351)	-0.0107
Age greater than 59	-0.3167*** (0.0474)	-0.0313

Exhibit 3.3
(continued)

LOGISTICAL REGRESSION MODEL OF RECERTIFICATION RATE

	<u>Coefficient</u> <u>(Standard Error)</u>	<u>Effect^a</u>
SITE CHARACTERISTICS		
County Unemployment Rate (1981)	0.0061 (0.0052)	0.0006
State Unemployment Rate (1986)	-0.0642*** (0.0084)	-0.0063
Change in State Unemployment Rate (1985-1986)	0.1219*** (0.0212)	0.0120
Percent of Employment in Manufacturing	0.0031** (0.0014)	-0.0003
Intercept	-1.7415*** (0.0750)	-0.1719
Mean of dependent variable	0.1127	
R-Square	0.0067	
Sample Size	57,937	

Standard errors in parentheses;

***Statistically significant at the 1 percent level.

**Statistically significant at the 5 percent level.

*Statistically significant at the 10 percent level.

^a The effect of each variable is calculated as $\bar{p} * (1 - \bar{p}) * b_j$, where \bar{p} = the average rate of recertification and b_j is the logistic coefficient. It represents the impact on the probability of a one-unit change in the corresponding variable. See Appendix 2C for deviation.

^b Income Maintenance (IM) is defined as income from AFDC, Social Security, SSI, and GA. The excluded category in this set is households with IM but no earnings.

^c The excluded category is AFDC. Social Security does not appear because the estimated coefficient for the corresponding indicator was less than the estimated standard error.

^d Includes miscellaneous income support programs as well as General Assistance.

Source: Exhibit 3B.3

Exhibit 3.4

PREDICTED RECERTIFICATION RATES BASED ON ENVIRONMENTAL FACTORS

STATE	Predicted Recertification Rate	Predicted Difference from National Avg. Due to Environmental Factors	STATE	Predicted Recertification Rate	Predicted Difference from National Avg. Due to Environmental Factors
Alabama	11.2	0.1	New Jersey	11.8	0.7
Alaska	10.8	-0.4	New Mexico	10.0	-1.1
Arizona	12.0	0.9	New York	11.5	0.4
Arkansas	9.9	-1.2	North Carolina	12.8	1.7
California	11.5	0.4	North Dakota	10.3	-0.8
Colorado	12.9	1.8	Ohio	10.3	-0.8
Connecticut	12.1	1.0	Oklahoma	11.2	0.1
Delaware	12.2	1.1	Oregon	10.5	-0.6
Dist. of Col.	10.1	-1.0	Pennsylvania	10.5	-0.6
Florida	11.0	-0.1	Rhode Island	12.0	0.9
Georgia	11.2	0.1	South Carolina	11.8	0.7
Hawaii	11.2	0.1	South Dakota	12.3	1.2
Idaho	11.5	0.4	Tennessee	11.1	0.0
Illinois	10.0	-1.1	Texas	12.5	1.4
Indiana	11.1	0.0	Utah	12.3	1.2
Iowa	10.3	-0.8	Vermont	12.3	1.1
Kansas	12.8	1.7	Virginia	12.1	0.9
Kentucky	9.9	-1.2	Washington	10.8	-0.3
Louisiana	9.7	-1.4	West Virginia	7.8	-3.3
Maine	12.4	1.3	Wisconsin	12.2	1.1
Maryland	12.9	1.8	Wyoming	12.0	0.9
Massachusetts	13.1	2.0			
Michigan	9.8	-1.3			
Minnesota	11.5	0.4			
Mississippi	10.1	1.0	NATIONAL MEAN	11.1	
Missouri	11.7	0.6	10th percentile	9.9	
Montana	11.1	0.0	90th percentile	12.7	
Nebraska	12.1	1.0			
Nevada	9.2	-1.9			
New Hampshire	12.5	1.3			

Source: Exhibit 3B.4

Although case characteristics and economic conditions have strong statistical relationships to recertification rates, and they suggest potentially important differences in workload, these effects account for only a small part of the cross-state variation in observed recertification rates. The State recertification rates predicted on the basis of environmental factors are positively correlated with the actual recertification rates (as measured in the IQCS data). But the predicted rates explain only 14 percent of the variance in the actual rates. Recall that, in the parallel analysis for initial certifications, the predicted rate explained 42 percent of the variance in observed rates. The substantial differences in States' policies regarding certification periods constitute a major source of variation in recertification rates, meaning that environmental factors play a relatively smaller role.

Total Worker Time for Recertifications

At the predicted national average rate, a local food stamp office is estimated to carry out 111 approved recertifications each month for each 1,000 households in its active food stamp caseload. The average recertification will require 45 minutes of eligibility worker effort, plus about 6 minutes and 15 minutes of supervisor and support staff time, respectively. To fulfill recertification requirements for 1,000 cases, then, the office will need about 89 eligibility worker hours.¹ This is essentially equal to the time required for initial certifications (88 hours). Although a recertification is actually quicker than an initial certification, about twice as many recertifications must be performed.

Case characteristics and local economic conditions have some effect on the amount of worker time that will be needed for recertifications. The five States with the least favorable situations would need at least 102 eligibility worker hours to handle recertifications for a caseload of 1,000 households, while the five States at the opposite end of the spectrum would need 80 hours or less (Exhibit 3.5). Without considering the effect of

¹This estimate includes an adjustment for recertifications ending in a denial (6 percent of the number of approved recertifications).

Exhibit 3.5

PREDICTED TOTAL ELIGIBILITY WORKER TIME: RECERTIFICATION

STATE	Predicted Hours Per Thousand Cases	Predicted Difference from National Avg. Due to Environmental Factors	STATE	Predicted Hours Per Thousand Cases	Predicted Difference from National Avg. Due to Environmental Factors
Alabama	92.4	3.0	Missouri	95.5	6.1
Alaska	86.6	-2.8	Montana	89.8	0.4
Arizona	97.6	8.2	Nebraska	97.4	8.0
Arkansas	82.0	-7.4	Nevada	73.3	-16.1
California	91.7	2.3	New Hampshire	98.9	9.5
Colorado	103.8	14.4	New Jersey	94.1	4.7
Connecticut	97.0	7.6	New Mexico	80.9	-8.5
Delaware	98.5	9.1	New York	90.9	1.5
Dist. of Col.	80.1	-9.3	North Carolina	105.8	16.4
Florida	89.1	-0.3	North Dakota	85.0	-4.4
Georgia	90.9	1.5	Ohio	81.8	-7.6
Hawaii	90.1	0.7	Oklahoma	91.8	2.4
Idaho	93.8	4.4	Oregon	84.2	-5.2
Illinois	79.3	-10.1	Pennsylvania	83.4	-6.0
Indiana	91.2	1.8	Rhode Island	95.1	5.7
Iowa	83.1	-6.3	South Carolina	96.8	7.4
Kansas	103.1	13.7	South Dakota	101.9	12.5
Kentucky	81.8	-7.6	Tennessee	91.1	1.7
Louisiana	79.8	-9.6	Texas	101.7	12.3
Maine	99.8	10.4	Utah	99.5	10.0
Maryland	102.7	13.3	Vermont	97.4	8.0
Massachusetts	104.2	14.8	Virginia	97.1	7.7
Michigan	77.7	-11.7	Washington	86.2	-3.2
Minnesota	92.5	3.1	West Virginia	63.5	-25.9
Mississippi	83.7	-5.7	Wisconsin	98.0	8.6
			Wyoming	96.8	7.4
			NATIONAL MEAN	89.4	
			10th percentile	80.1	
			90th percentile	102.7	

Source: Exhibit 2D.2 and the inflation factor for denied recertifications (1.060).

policy, then, the States with the most demanding environment would have to devote at least 28 percent more eligibility worker time to recertifications than those facing less difficult circumstances.

Although the effect of program environment on recertification time is potentially important, it is considerably smaller than that observed for initial certifications. The 22-hour gap compares to a 73-hour disparity seen between the top five and bottom five time estimates for initial certification (Exhibit 2.6).

Conclusion

Caseload characteristics and local economic conditions affect the amount of worker time, and hence administrative cost, that States would be expected to spend on recertification. The effect is potentially important -- a 28 percent difference between the time required in the five States with the most difficult situation and the five States with the easiest. Nonetheless, the effect is smaller, both proportionally and in absolute terms, than the effect previously observed for initial certification.

The smaller effect for recertification springs from several sources. First, case characteristics seem to have little systematic influence on how long an eligibility worker spends on a recertification. State- and office-level variations in procedures and practices have much more impact than case characteristics on worker time to complete the task. In this respect, however, the findings for recertification parallel those for initial certification.

Environmental factors do have an important effect on the proportion of the caseload that must be recertified each month. The effect is weaker than the comparable effect for initial certifications, however, because it drives in two contradictory directions. On the one hand, volatile cases tend to be given short certification periods, leading to potentially higher recertification rates for these cases. On the other hand, volatile cases are more likely to leave the Food Stamp Program before their recertification occurs. The net result is that, while case characteristics and economic conditions have an effect, the effect is smaller than might otherwise be expected.

Finally, it should be noted that disparities in recertification work stemming from environmental differences are relatively small beside the policy-based differences. For example, projecting from case characteristics indicates that California and New York should both have a recertification rate of about 11.5 percent, close to the national mean. But California's rate indicated in the IQCS data is 6 percent, compared to 14 percent in New York. The difference arises because California assigns long certification periods (typically 12 months) to over 85 percent of its cases, while over a third of New York's caseload is assigned 1- to 4-month certification periods. Thus, although caseload and economic effects are potentially important, they account for only a fraction of the actual cross-state differences in recertification effort.

CHAPTER FOUR
MONTHLY REPORTING

For many food stamp households, the recertification is the only regularly scheduled occasion for communicating new information about their household circumstances. Some households, however, must file a report every month.

Households subject to the monthly reporting requirement receive a form in the mail each month. The form typically asks about earned and unearned income received during the month, household composition, resources (such as vehicles and bank accounts), and certain expenditures (shelter, medical, and care of dependents). The household must complete the form, sign it, and mail it in by a specified date. If the information on the form indicates that the household's circumstances have changed, benefits are altered or terminated accordingly. Households that fail to return the form are removed from the program.

Which households are subject to monthly reporting is a matter of both national and State policy. National legislation has been revised several times during the 1980's. Broadly speaking, however, States were required during most of the decade to implement monthly reporting for at least some portion of their caseload, but they could obtain permission to exclude some types of cases. The most recent legislation, the Hunger Prevention Act of 1988, allows States almost total flexibility in deciding whether any cases should report monthly and, if so, which types.

Within this policy environment, States' monthly reporting strategies have varied widely. In a 1986 survey, about a quarter of the States said they mandate monthly reporting for all food stamp households not specifically exempted by the national legislation.¹ (Exempt households at that time were those in which all adults are elderly or disabled and have no earned income, and households headed by migrant laborers.² They accounted for about 22

¹William L. Hamilton. Report on the Census of State Operations: Monthly Reporting. Cambridge, MA: Abt Associates Inc., 1987.

²The Hunger Prevention Act of 1988 added homeless persons to the list of exempt categories.

percent of the national food stamp caseload.) The other States all apply monthly reporting to selected portions of their caseload, typically to those cases considered most likely to experience changes or most error-prone.

Although States vary substantially in their operating procedures, a typical State agency mails forms to all monthly reporting households near the end of a month (say, January). The household is required to mail the form to the local food stamp office by about the 5th of the next month (February). A worker reviews the form for completeness and, if it is acceptable, records receipt of the form on the automated system. The form must then be examined to see whether it indicates any changes in the household's circumstances. If so, the worker carries out any required verification and initiates the process of posting the new information onto the automated master file. The new information will affect the household's issuance in the following month (March).¹

The workers' tasks in handling a household's monthly report depend on when the household submits the form and what information it contains. If a household fails to meet the deadline, the worker may have to send a reminder notice, although this function is automated in many States. For an incomplete report, a worker usually returns the form with a note indicating the problem, and sometimes contacts the household directly. A complete report containing new information about the household's circumstances generally involves more worker follow-up than a form indicating no change. If the household misses the final deadline, the case is terminated or suspended. Although the termination/suspension is usually automated, the client often responds with an inquiry or by bringing in the form, and the worker must handle the inquiry or, in some situations, reinstate the case.

Given this policy and procedural environment, caseload characteristics are hypothesized to influence monthly reporting work effort in two ways. First, given a specific policy about which kinds of cases will be subject to monthly reporting, differences in caseload composition can

¹In some States, including New Mexico, the information on the monthly report affects the allotment issued in the same month that the report is submitted. Thus, in the example above, any change indicated by the monthly report would affect the issuance in February.

Exhibit 4.1

ELIGIBILITY WORKER TIME SPENT ON
VARIOUS MONTHLY REPORTING OUTCOMES

<u>State</u>	<u>Time Spent (minutes)</u>
ALABAMA	
Change	13.2
No-Change	11.2
Not Filed	8.4
ARKANSAS	
Change	15.7
Other	9.3
COLORADO	
Change	12.2
No-Change	9.5
Not Filed	2.4
NEW MEXICO	
Change	11.2
No-Change	6.3
Not Filed	1.5

Source: Exhibit 4A.2 where upper and lower bounds exist, figures here represent midpoint of range.

Cases that fail to file often require no worker intervention at all in Colorado and New Mexico. Including these situations requiring zero time, the estimated eligibility worker time for a case that fails to file is only about two minutes. Eligibility worker action is needed somewhat more frequently in Alabama, leading to an estimated average of eight minutes.¹

Eligibility worker time to handle a monthly report with a given outcome (e.g., change or no change) is not hypothesized to be affected by household characteristics. If a household is reporting a change, whether the household is large or small should not usually make a difference in the time needed to process the change. It is possible that some kinds of changes take longer to process than others, and that household characteristics are associated with the occurrence of particular types of changes. But we would not expect such an indirect effect to have much influence on the average time to process a change.

These expectations were tested in a multivariate analysis that considered task time as a function of an array of household characteristics. No consistent, statistically significant relationships were found, although a few significant effects were found within individual States.

Case Characteristics' Influence on Monthly Reporting Outcomes

It is reasonable to suspect that some kinds of households are more likely than others to have particular monthly reporting outcomes. For example, households that are generally believed to have frequent changes in circumstances, such as households with earnings, would seem especially likely to submit a monthly report with a change. Recipients with limited education, language problems, or physical disabilities might be more likely to file late or incomplete reports.

Although limitations of the State data bases preclude testing any of these hypotheses fully, analyses were carried out where possible. Factors related to the probability of reporting a change were examined through multivariate analysis for Alabama, Colorado and New Mexico. The probability

¹Cases failing to file could not be reliably identified in the available Arkansas data.

of filing an incomplete report, and failing to file at all were examined in Alabama. (Appendix 4C presents these analyses.)

Overall, the most common monthly reporting outcome is that the household files a report indicating a change in circumstances. From 44 to 72 percent of all monthly reporting households file reports with changes in an average month in the four study States (Exhibit 4.2).¹ About 18 to 49 percent file no-change reports, while 7 to 15 percent fail to file at all and are terminated or suspended. In Alabama, the only State in which we could identify households that submit incomplete reports, 20 percent of the monthly reporting households file incomplete reports each month.

Case characteristics clearly influence the probability that a case will file a monthly report with a change. Using data from Alabama, Colorado, and New Mexico, the probability of a monthly reporting household filing a report with a change was analyzed as a function of an array of case characteristics.² Strong and consistent relationships are found across the three States, as summarized in Exhibit 4.3 and described further in Appendix 4C.

The strongest relationships, not surprisingly, concern the household's source of income. Compared to households whose income comes only from government programs (mainly AFDC, SSI, and Social Security), households with earnings are 34 percentage points more likely to report a change. Households with other non-program income sources but no earnings are 17 percentage points more likely to report changes than those with program income

¹These figures exclude months in which a monthly reporting household had an initial certification or recertification. The first monthly report for a newly approved household is normally due in the month after the initial certification. In recertification months, households typically take their monthly report to the recertification, so the outcome of the report cannot be distinguished from the outcome of the recertification.

²Ordinary least squares (OLS) regression is used in this analysis despite the binary form of the dependent variable. The very large sample sizes and the intended use of the data (in which predicted values outside the 0-1 range for a given case are not a problem) argued that OLS would be acceptable. Comparative analyses of the two techniques for initial certification and recertification showed that, in these conditions, they yield virtually identical results (see Appendix 4C). The OLS technique is therefore used for this and subsequent analyses.

Exhibit 4.2

MONTHLY REPORT FILING PATTERNS

	<u>Alabama</u>	<u>Arkansas</u>	<u>Colorado</u>	<u>New Mexico</u>
Proportion of caseload required to report monthly ^a	32.8%	30.1%	53.5%	60.5%
Of those required to report				
File and report any change	64.6%	68.5%	43.9%	72.3%
File with no change	20.9	23.2	48.9	17.5
Fail to file	14.5	8.3	7.2	10.2
Total	100.0%	100.0%	100.0%	100.0%
Of those filing a report				
File properly at first	33.7%	NA	NA	NA
Form returned, incomplete or in error	19.9	NA	NA	NA
Sent a reminder to file	46.4	NA	NA	NA
Total	100.0%			

Source: Exhibit 4C.2

^a Based on automated household data for 1987 (Alabama, Arkansas, New Mexico) or 1988 (Colorado)

Exhibit 4.3

REGRESSION MODEL OF MONTHLY REPORTING CHANGE RATES^a

	<u>Pooled^b</u> <u>N=(70,098)</u>
<u>Household Characteristics</u>	
Multiple adults in household	.061*** (.004)
Number of children	.022*** (.001)
Shelter costs	.016** (.007)
Dependent care costs	.064*** (.007)
Male head of household	.005 (.004)
<u>Sources of Income^c</u>	
Earnings (with or without other income)	.344*** (.005)
Unearned income, other than AFDC, GA, Social Security, or SSI	.168*** (.006)
Intercept	.269
R-square	.114
Mean of dependent variable	.605

^aStandard error in parentheses:

- *statistically significant at 10 percent level;
- **statistically significant at 5 percent level;
- ***statistically significant at 1 percent level;

^bRepresents 2 percent of Alabama, Colorado, and New Mexico's caseloads.

^cExcluded category is households with neither earned nor (other than AFDC, Social Security, or SSI) Unearned income.

Source: Exhibit 4C.3

only. Other factors contributing to the likelihood of a change are the presence of more than one adult, the number of children, and the presence of shelter or dependent care costs or deductions.

Case characteristics appear to be less important for the other monthly reporting outcomes (failing to file, filing an incomplete report). These could be examined only in Alabama because of data limitations. In that State, termination for failure to file occurs somewhat more frequently for small cases and cases with younger heads of household, perhaps reflecting generally shorter spells of assistance (and hence higher closure rates) for these households. Households in which all members have both AFDC and food stamps have lower than average rates of failing to file or filing incomplete reports. These patterns can only be taken as suggestive, however, because they are based on a single State.

Case Characteristics' Effect on Monthly Reporting Status

The foregoing analysis indicates that, if a household is subject to monthly reporting, its characteristics influence the likelihood that particular tasks will have to be performed for the case. But case characteristics can have an even more basic effect by determining whether the case is subject to monthly reporting at all.

If national policy required certain types of cases to report monthly and prohibited others from doing so, it would be easy to see the effect of cross-state differences in caseload composition. Assume, for example, that all households would be subject to monthly reporting except migrant worker households and households made up of elderly or disabled persons with no earned income. With such a rule in effect, 78 percent of the average State's caseload would be subject to monthly reporting (based on 1986 data). In six States, however, more than 85 percent of the caseload would report monthly, while four States would apply monthly reporting to less than 65 percent of the caseload. Thus the States with the fewest exempt cases would have to spend about a third more effort on monthly reporting than the States with the most exempt cases.

The flexibility inherent in actual national policy makes it more difficult to isolate the effect of case characteristics. Indeed, because current law allows States not to use monthly reporting at all, one could argue

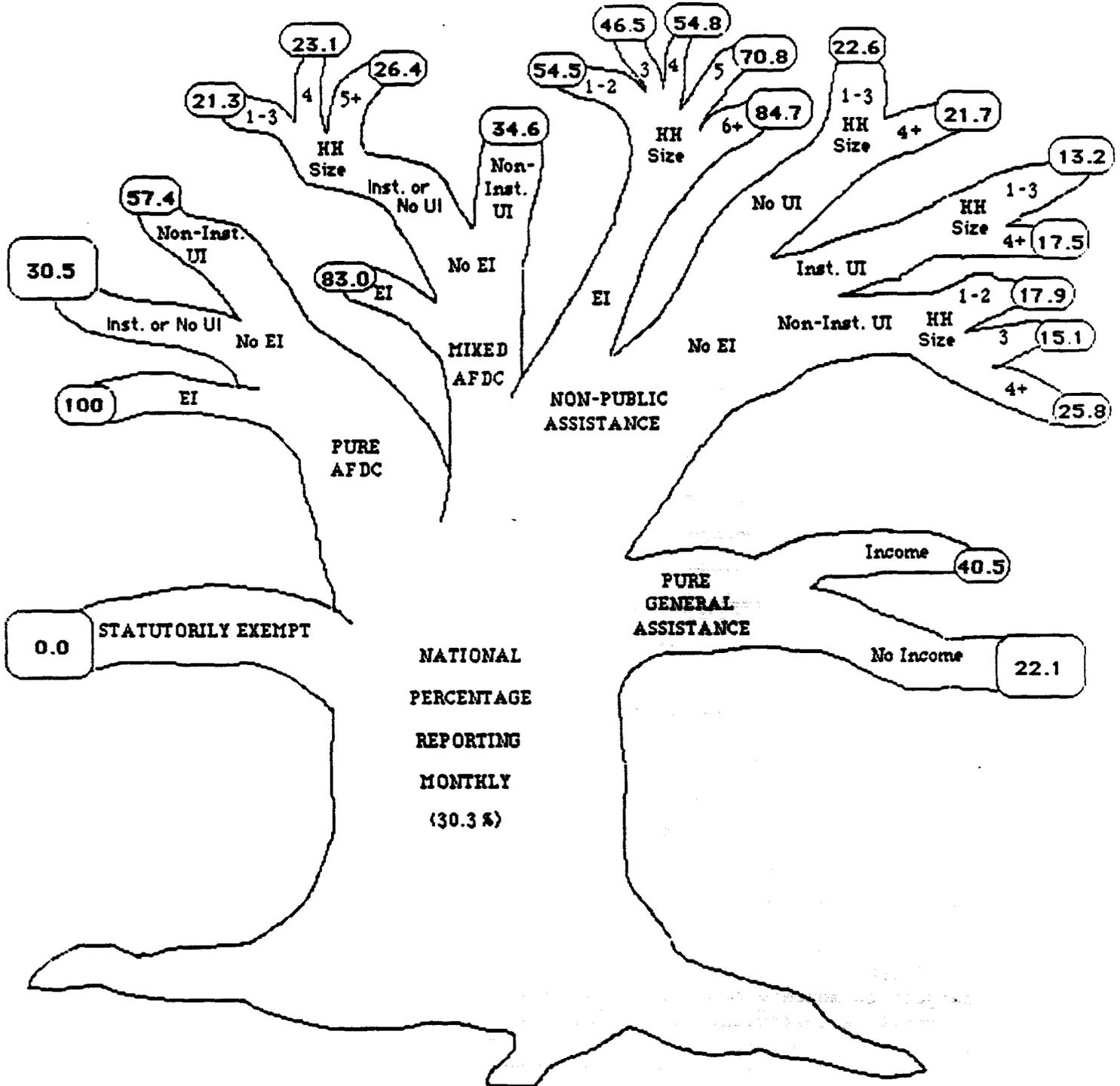
that a State's caseload composition has no necessary effect on its monthly reporting effort. This over-simplifies the issue, however. Monthly reporting is still available to the States, and conventional practice still tends to apply monthly reporting to the cases that are considered most volatile or error-prone. States with high concentrations of these cases would be expected, on average, to spend more effort on monthly reporting than States with more stable caseloads.

To address the issue of case characteristics' effects, then, the analysis employs the device of a hypothetical "national average" monthly reporting policy. States' monthly reporting policies for 1986 were applied to the IQCS data for 1986. Based on each household's reported characteristics and the rules of the State in which it resided, all households in the data base were coded as subject or not subject to monthly reporting. (This must be considered a "probable" monthly reporting status, because not all rules could be fully represented with the available variables.) This allows us to examine the nationwide proportion of food stamp households in any given category that were subject to monthly reporting in 1986.

The national average policy is illustrated in the monthly reporting "tree" in Exhibit 4.4. Nationwide, 30 percent of food stamp households are shown to be subject to monthly reporting. The percentage ranges from zero for households exempt by law to 100 percent for pure AFDC cases with earnings. Most cases with earned income are subject to monthly reporting. Most NPA cases with no earned income are not subject to monthly reporting. Large households are somewhat more likely to be subject to monthly reporting than small ones.

In general, then, a State with a high concentration of earnings cases would be expected to have a higher than average percentage of cases on monthly reporting. Conversely, the monthly reporting rate would be expected to be below average in States with many exempt cases and NPA cases with no earnings. This logic was incorporated in an analysis that determined how many

MONTHLY REPORTING RATES FOR SUBGROUPS



EI=Earned income

Inst. UI=Institutional Unearned income (One or more of the following, and no other UI: social security, veteran's benefits, SSI, workmen's compensation, disability).

Non-Inst. UI=one or more of the following: Unemployment insurance, contributions, deemed income, educational grants and loans, "other" unearned income.

HH Size=Number of food stamp case members.

Source: FY 1986 IQCS data, State monthly reporting policies (Appendix 4B, Exhibit 4B.5)

households in each State would be on monthly reporting if that State applied the national average policy.¹

The analysis indicates that variations in caseload composition can have a substantial effect on States' monthly reporting rates. If all States applied the national average policy, six would have more than 35 percent of their caseload on monthly reporting, while five would apply monthly reporting to 26 percent or less. In other words, the first group of States would have to carry out monthly reporting tasks for about one-third more cases than the latter group.

The effect of caseload characteristics is even somewhat greater than these figures suggest. In considering the amount of work generated by monthly reporting cases, it is appropriate to exclude months in which a monthly reporting household is initially certified or recertified. With this exclusion, Exhibit 4.5 shows the percentage of each State's caseload for which some monthly reporting activity would be expected each month under the hypothetical national average policy.² The five highest rates exceed 28 percent, while the five lowest fall below 20 percent. Thus States in the former group would be expected to spend at least 48 percent more resources dealing with monthly reporting than those with the less demanding caseloads.

Total Worker Time for Monthly Reporting

Based on the above analyses, one would expect the average State to have 30 percent of its food stamp caseload subject to monthly reporting, with 23 percent of the households actually requiring a monthly reporting task in the average month. Of the latter group, 53 percent will submit a monthly report indicating a change in their circumstances. These cases will require

¹Each household in the IQCS data base was assigned a probability of being subject to monthly reporting. The probability was equal to the national monthly reporting percentage in the "leaf" of the monthly reporting tree that corresponds to the household's characteristics. The probabilities were then summed for all cases in each State. See Appendix 4B for details.

²The probability that a case will be in an initial certification or recertification month is also established using a national average policy approach. This is the initial certification rate and recertification rate as measured in the IQCS data for each group of cases in the monthly reporting analysis (i.e., for each leaf on the monthly reporting tree).

Exhibit 4.5

PREDICTED MONTHLY REPORTING RATE BASED ON ENVIRONMENTAL FACTORS

STATE	Predicted Monthly Reporting Rate ^a	Predicted Difference from National Avg. Due to Environmental Factors	STATE	Predicted Monthly Reporting Rate ^a	Predicted Difference from National Avg. Due to Environmental Factors
Alabama	21.6	-1.7	Missouri	23.3	-0.0
Alaska	27.4	4.1	Montana	25.0	1.7
Arizona	22.3	-1.0	Nebraska	28.1	4.8
Arkansas	17.2	-6.1	Nevada	17.8	-5.5
California	31.6	8.3	New Hampshire	22.6	-0.7
Colorado	24.3	1.0	New Jersey	21.9	-1.4
Connecticut	23.5	0.2	New Mexico	22.8	-0.5
Delaware	23.2	-0.1	New York	20.0	-3.3
Dist. of Col.	20.7	-2.6	North Carolina	21.1	-2.2
Florida	19.3	-4.0	North Dakota	14.8	-8.5
Georgia	19.0	-4.3	Ohio	24.4	1.1
Hawaii	26.2	2.9	Oklahoma	20.4	-2.9
Idaho	26.6	3.3	Oregon	23.6	0.3
Illinois	20.5	-2.8	Pennsylvania	21.1	-2.2
Indiana	25.2	1.9	Rhode Island	19.9	-3.4
Iowa	28.6	5.3	South Carolina	21.8	-1.5
Kansas	25.9	2.6	South Dakota	29.4	6.1
Kentucky	22.0	-1.3	Tennessee	21.1	-2.2
Louisiana	22.8	-0.5	Texas	23.5	0.2
Maine	26.3	3.0	Utah	28.7	5.4
Maryland	21.4	-1.9	Vermont	22.5	-0.8
Massachusetts	22.2	-1.1	Virginia	22.2	-1.1
Michigan	23.5	0.2	Washington	25.6	2.3
Minnesota	27.3	4.0	West Virginia	31.1	7.8
Mississippi	22.9	-0.4	Wisconsin	34.0	10.7
			Wyoming	25.7	2.4
			NATIONAL MEAN	23.3	
			10th percentile	19.4	
			90th percentile	28.7	

^aExcluding case months in which an initial certification or recertification occurs.

Source: Exhibit 4C.5

an average of 14 minutes of eligibility worker time, plus 13 minutes of support staff and 3 minutes of supervisor time. The remaining monthly reporting cases will need 9 minutes from an eligibility worker, plus 9 and 2 minutes of support and supervisor time, respectively.

Combining these factors, the average office with a caseload of 1,000 will require 45 hours of eligibility worker time for monthly reporting. It will also need almost 45 hours of support staff and 11 hours of supervisor time. Thus the office will devote somewhat less worker time to monthly reporting than to approved initial certifications (65 eligibility worker hours) and substantially less than to approved recertifications (84 eligibility worker hours).

Differences in caseload composition can cause monthly reporting resource requirements to vary rather substantially from State to State. Two types of effects have been observed, both implying that States with high concentrations of volatile cases can be expected to have heavier workloads. A State with a high concentration of volatile cases will tend to require monthly reporting of a higher than average fraction of its caseload. And among those cases subject to monthly reporting, the volatile ones are most likely to report changes, and hence to require more worker effort.

These factors combine to cause potentially important differences in the resources that States would have to devote to monthly reporting. The five States with the most difficult caseload, in terms of monthly reporting, would all require more than 55 eligibility worker hours per month, or 49 percent more time than in the five States with the least demanding caseloads (Exhibit 4.6). This 18-hour effect is comparable in magnitude to the effect of environmental factors on recertification workload, though considerably less than the initial certification effect.

Conclusion

For monthly reporting, as for initial certification and recertification, a State's program environment can have an important effect on administrative resource requirements. If all States followed the national average pattern in selecting cases for monthly reporting, differences in State caseload composition would have an effect on worker hours for monthly reporting similar to the effect for recertification.

Exhibit 4.6

PREDICTED TOTAL ELIGIBILITY WORKER TIME: MONTHLY REPORTING

STATE	Predicted Hours Per Thousand Cases	Predicted Difference from National Avg. Due to Environmental Factors	STATE	Predicted Hours Per Thousand Cases	Predicted Difference from National Avg. Due to Environmental Factors
Alabama	42.7	-1.8	Missouri	44.0	0.4
Alaska	52.0	7.5	Montanal	49.0	4.5
Arizona	43.1	-1.4	Nebraska	54.5	10.0
Arkansas	34.0	-10.5	Nevada	34.1	-10.4
California	58.7	14.2	New Hampshire	43.2	-1.3
Colorado	46.8	2.3	New Jersey	40.7	-3.8
Connecticut	43.4	-1.1	New Mexico	44.4	-0.1
Delaware	44.4	-0.1	New York	37.3	-7.2
Dist. of Col.	38.4	-6.1	North Carolina	41.3	-3.2
Florida	37.3	-7.2	North Dakota	29.0	-15.5
Georgia	37.4	-7.1	Ohio	45.9	1.4
Hawaii	50.7	6.2	Oklahoma	39.7	-4.8
Idaho	52.5	8.0	Oregon	46.0	1.5
Illinois	38.0	-6.5	Pennsylvania	39.7	-4.8
Indiana	48.8	4.3	Rhode Island	37.1	-7.4
Iowa	55.2	10.7	South Carolina	42.8	-1.7
Kansas	49.9	5.4	South Dakota	58.3	13.8
Kentucky	42.8	-1.7	Tennessee	41.0	-3.5
Louisiana	44.6	0.1	Texas	46.2	1.7
Maine	51.2	6.7	Utah	55.7	11.2
Maryland	40.0	-4.5	Vermont	43.0	-1.5
Massachusetts	41.5	-3.0	Virginia	43.1	-1.4
Michigan	43.9	-0.6	Washington	48.4	3.9
Minnesota	52.3	7.8	West Virginia	59.1	14.6
Mississippi	45.7	1.2	Wisconsin	64.7	20.2
			Wyoming	49.4	4.9
			NATIONAL MEAN	44.5	
			10th percentile	37.3	
			90th percentile	55.7	

Source: Exhibit 2D.3

Case characteristics do not affect the length of time it takes to perform particular monthly reporting tasks. Rather, they affect whether the case will be subject to monthly reporting and, if so, which tasks will have to be performed (in particular, whether a change must be processed). Cases that would generally be expected to have their household circumstances change frequently, such as those with earnings and large households, are most likely to be subject to monthly reporting and, when they are monthly reporters, more likely than other types of households to report changes on their monthly reports.

In interpreting these findings, it is important to remember that, unlike initial certifications and recertifications, national regulations do not require States to use monthly reporting. States vary tremendously in the proportion of their caseload they make subject to monthly reporting. These policy choices are clearly far more important than caseload composition in causing workload variations. Nonetheless, most States do employ monthly reporting for some categories of cases, and some common themes are evident in the categories they require to report. Given these commonalities, it is reasonable to conclude that caseload characteristics do influence the amount of effort a State would normally be expected to spend on monthly reporting.

CHAPTER FIVE

INTERIM CHANGES

Households that are subject to monthly reporting have a routine mechanism for telling the food stamp agency about any change in their circumstances. For other households, recertifications are the only routinely scheduled reporting events, typically occurring at six- or twelve-month intervals. These households are nonetheless required to report any pertinent changes in circumstances that occur in the interim between certifications.

When non-monthly reporting households are initially certified, they are instructed that they must report any interim changes in their income or other eligibility-related circumstances within ten days. Recipients may report changes by visiting the local office or, depending on State and local policy, by telephone or by mail.

The eligibility worker normally bears the responsibility for recording the changed circumstances and initiating any needed adjustment to the allotment. The worker records the information that the recipient provides and verifies it as necessary. The worker then determines eligibility and computes the allotment, or initiates the process of getting new data into the automated system for a re-computation of eligibility and allotment.

The concept of a "change" is less clear-cut than it initially appears. One usually thinks of an interim change as, for example, a change in the number of household members, which requires a corresponding adjustment to the allotment amount. But some reported changes do not affect the household's eligibility or allotment. For example, a client may report a change of address. The worker must post this change to the automated system so the food stamp will be sent to the right place. Other changes, such as a

information reported by a recipient which must be recorded on the automated system, but does not necessarily involve a change in eligibility or allotment.¹ Client reporting events that do not leave a record in the automated system are not considered in the analysis.

Caseload characteristics and economic factors are hypothesized to affect the number of households that have an interim change in any given month. An agency serving a volatile caseload is expected to process more interim changes than one serving more stable cases, other things being equal.

This chapter examines the extent to which features of the program environment influence the amount of worker time devoted to interim changes. It finds that, although volatile cases do indeed have a higher likelihood of changes, this effect is partially offset by the fact that more volatile cases tend to be monthly reporters and to have frequent recertifications, and hence to have other means of communicating new information about their household circumstances.

Eligibility Worker Time for Handling an Interim Change

When a household reports an interim change, eligibility workers in the four study States spend an average of 11 to 25 minutes processing the change. The pattern across States is the same as seen for initial certification and recertification: Colorado and New Mexico have the low and high figures, and Alabama and Arkansas are in between at 14 and 17 minutes, respectively.

The bulk of this time is spent to enter information about the change on the necessary forms (or directly into the computer, in some locations) and to recalculate the budget where this is necessary. The remaining time is spent reviewing the reported information and the case file and verifying the information.

¹Because States' systems differ in the information they contain, a client reporting event that leaves a system record in one State might leave no record in another. This presented a potential problem in comparing New Mexico to the other three study States, because "change" records in the New Mexico system cover a broader range of events. For comparability, an interim change in New Mexico was restricted to mean a change in one or more data items roughly corresponding to the items involved in changes on the other three systems.

Case characteristics have no direct effect on the length of time the eligibility worker spends. No such effect was hypothesized: there is no reason to believe that, for example, processing a change reported by a large household would take longer than processing one reported by a small household. To test this expectation, regression models were estimated treating task time as a function of case characteristics. The results were as expected. The models were very weak, and no coefficients were consistently statistically significant across States.

Supervisor and Support Staff Time

Averaging across the four study States, supervisors spend about four minutes per interim change. Colorado differs sharply from the other States, with an average supervisor time of about 10 minutes compared to 2-3 minutes in the other States (Exhibit 5.1). This appears to reflect policy differences concerning the extent to which supervisors are expected to review interim change actions. Colorado supervisors report becoming involved in 44 percent of interim changes, while the average elsewhere ranges from 12 to 22 percent. When supervisors are involved, they report spending roughly comparable amounts of time across the four States, at 11 to 16 minutes.

In addition to this supervisory effort, support staff spend an average of 12 minutes on each interim change. Support staff tasks are mainly concerned with entering data or processing paperwork after eligibility workers have finished their part of the task. The average time varies somewhat across the four States (from 10 minutes in Alabama to 14 minutes in New Mexico), but less than the supervisor time.

The Frequency of Interim Changes

In considering the frequency with which workers must handle interim changes, one must distinguish two situations: those in which a household has some other reporting event occurring in the same month, and those in which no reporting event is scheduled. We shall call these **scheduled-event months** and **non-event months**, respectively.

Exhibit 5.1

SUPERVISOR AND SUPPORT STAFF TIME FOR INTERIM CHANGES
(IN MINUTES)

	ALABAMA	ARKANSAS	COLORADO	NEW MEXICO	WEIGHTED AVG. ¹
SUPERVISORS:					
Mean Percent of Cases Involved in	22.16%	16.19%	44.42%	11.55	
Average Time When Involved (Minutes)	10.92	10.72	15.92	11.82	
Expected Time per Instance the Task Occurs (Minutes)	2.64	2.03	9.83	1.66	3.79
SUPPORT STAFF:					
Expected Time per Instance the Task Occurs ² (Minutes)	9.91	12.15	9.86	13.88	11.41

¹Weights based on State food stamp caseloads.

²The estimates for Alabama, Arkansas and New Mexico include the mean number of minutes for filing, multiplied by the percent of supervisors who indicated that filing was usually performed for each task (unadjusted filing means are 1.77 minutes for Alabama, 1.93 minutes for Arkansas, and 2.24 minutes for New Mexico). Filing times were included in the support staff estimates in Colorado.

Sources: Exhibits 2B.1 and 2B.3

For a monthly reporting household, every month is a scheduled-event month. They must file each month a written report whose purpose is to communicate information about changes in in the household's circumstances. As a general rule, then, monthly reporters would not be expected to have interim changes. Likewise, households that go through an initial certification or recertification would not often be expected to report an interim change within the same month.

Interim changes occur for 7 to 10 percent of the caseload in non-event months in the Alabama, Arkansas, and Colorado. The rate is substantially higher in New Mexico, at 18 percent. It is possible that the New Mexico figure is an over-estimate, however, stemming from the unique character of the automated data system in that State.¹

A few households had two or more interim changes in a single month. Data limitations make it difficult to know how often this occurs, but the upper-bound estimate is that about 10 percent of the households reporting any change have change actions taken on two or more separate dates.

Even with the difference between New Mexico and the other States, the cross-state variation in interim change frequency is relatively small compared to the pattern seen earlier for initial certifications, recertifications, and monthly reports. This is at least partly to be expected. Non-event months are, almost by definition, case months in which little is expected to happen. The more volatile cases tend to be required to report monthly or given short certification periods, so they are not often found in non-event months. Thus if two States' caseloads differ in the proportion of their caseload that is volatile, the State with more volatile cases would have fewer non-event months. But this would not necessarily cause

¹Workers interact with the automated system for more purposes in New Mexico in the other States, and the record that is produced by an interim change may also be produced during other types of actions. To control for this problem, a case was considered to have an interim change only if the change record was present and a difference was observed between the beginning and end of the month values for the household's benefit amount or certain household characteristics. Thus only "real" changes are counted, although we cannot rule out the possibility that some of these are generated by a process other than recipient reporting.

differences in the two States' interim change rates within the non-event months.

For the scheduled-event months, data limitations make it impossible to measure an interim change rate directly. In all four of the study States' data systems, records that normally reflect an interim change are sometimes produced in the processing of initial certifications, recertifications, and monthly report changes. As a result, an "interim change record" found in, say, a recertification month may or may not indicate that an interim change occurred separately from the recertification.

The best available estimate is that about one percent of the scheduled-event months also have interim changes. This estimate is based on a question added to the Colorado survey of eligibility workers, which asked how many interim changes they process for cases that, in the same month, also file a monthly report or have an initial certification or recertification. The workers estimated that about a third of their interim changes occurred in such months. This figure was used in combination with data from Colorado's automated system on the proportion of scheduled-event and non-event months to derive the estimated interim change rate (Appendix 5B).

The Effect of Case Characteristics on Interim Change Frequency

The types of households in non-event months are only those that are not subject to monthly reporting. Nonetheless, clear relationships can still be seen between case characteristics and the likelihood that the household will have an interim change. Multivariate analyses were used to relate the probability of a change to various case characteristics, with models estimated for each of the four study States separately and for the four States pooled together. The pooled model is presented in Exhibit 5.2; Appendix 5B describes the analysis.

Cases including more than one adult, several children, younger heads of household, and white or Hispanic heads of household are more likely than others to report a change. Changes are also more likely for households with dependent care or medical deductions. These results are strong and fairly consistent across States.

Exhibit 5.2

FOUR-STATE POOLED REGRESSION MODEL OF FREQUENCY OF INTERIM CHANGE

<u>Variable</u>	<u>Coefficient (Standard Error)</u>
Multiple Adults Present	0.0382*** (0.0024)
Number of Children	0.0172*** (0.0008)
Head of Household is:	
Male	-0.0126*** (0.0023)
Under Age 30	0.0312** (0.0028)
Over Age 59	-0.0242*** (0.0024)
Black	-0.0206*** (0.0022)
Deductions Present:	
Medical	0.0117*** (0.0029)
Dependent Care	0.0436*** (0.0111)
Presence of income maintenance and unearned income other than AFDC, GA, SSI, and Social Security	0.0338*** (0.0026)
State ¹ :	
Alabama	-0.0686 (0.0038)
Arkansas	-0.0967*** (0.0039)
Colorado	-0.0067*** (0.0041)
Intercept	0.1552
Sample Size	96,124
R-Square	0.0307
Mean of dependent variable	0.1012

Standard errors in parentheses;

***Statistically significant at the 1 percent level

** Statistically significant at the 5 percent level

* Statistically significant at the 10 percent level

Source: Exhibit 5B.3

The nature of the household's income sources also appears to influence interim changes within individual States. The relationships vary across the States, reflecting variations in monthly reporting policy that place differing kinds of cases in the pool of non-event months.¹ The one consistent relationship is that households with a combination of program income (AFDC, GA, SSI, or Social Security) and any other unearned income are more likely to have an interim change than other households.

To assess the importance of cross-state variations in caseload, the pooled model was used in combination with IQCS data to project the expected rate of interim changes for all States. This required deciding whether each case represented in the IQCS should be considered to be in a scheduled-event month or a non-event month, which was done through an extension of the monthly reporting "tree" analysis (Appendix 5B). Each IQCS case was then assigned two probabilities of having an interim change, one conditional on being in a non-event month and one for scheduled-event months. These elements were combined to predict an overall interim change rate for each State and for the nation as a whole.

In an average month, interim changes are estimated to be performed for 7.6 percent of the national food stamp caseload. Differences in caseload characteristics cause relatively little state-to-state variation in this rate, as shown in Exhibit 5.3. The rate ranges only from 6.7 to 8.6 percent. The five States with the highest rates are estimated to perform about 17 percent more interim changes in an average month than the five lowest-rate States. While this difference is not trivial, it is much smaller than those seen for other tasks.

The limited effect of caseload differences occurs because case characteristics affect the likelihood of an interim change in two ways, and the two effects tend to cancel. On the one hand, volatile cases are more likely than others to have an interim change. On the other hand, volatile

¹For example, the only earnings cases in Arkansas that are not subject to monthly reporting, and therefore allowed to be represented in the non-event months, are cases judged by eligibility workers to have "stable" earnings. The results of the analysis suggest that the workers' judgment is relatively accurate: the included earnings cases have fewer changes than households with other types of income.

Exhibit 5.3

PREDICTED INTERIM CHANGE RATE BASED ON ENVIRONMENTAL FACTORS

STATE	Predicted Interim Change Rate	Predicted Difference from National Avg. Due to Environmental Factors	STATE	Predicted Interim Change Rate	Predicted Difference from National Avg. Due to Environmental Factors
Alabama	7.3	-0.4	Missouri	7.7	0.0
Alaska	8.4	0.7	Montana	7.8	0.1
Arizona	8.6	0.9	Nebraska	7.5	-0.2
Arkansas	7.7	-0.0	Nevada	7.2	-0.5
California	7.9	0.2	New Hampshire	7.5	-0.2
Colorado	7.8	0.1	New Jersey	7.8	0.1
Connecticut	8.1	0.4	New Mexico	8.2	0.5
Delaware	7.5	-0.2	New York	7.4	-0.3
Dist. Col.	6.7	-1.0	North Carolina	7.4	-0.3
Florida	7.3	-0.4	North Dakota	7.7	0.0
Georgia	7.1	-0.6	Ohio	7.4	-0.3
Hawaii	7.4	-0.3	Oklahoma	8.4	0.7
Idaho	7.9	0.2	Oregon	7.5	-0.2
Illinois	7.4	-0.3	Pennsylvania	7.7	-0.0
Indiana	8.1	0.4	Rhode Island	7.8	0.1
Iowa	7.6	-0.1	South Carolina	7.0	-0.7
Kansas	7.6	-0.1	South Dakota	8.0	0.3
Kentucky	8.3	0.6	Tennessee	7.8	0.1
Louisiana	7.4	-0.3	Texas	7.7	0.0
Maine	7.5	-0.2	Utah	8.2	0.5
Maryland	7.3	-0.4	Vermont	7.5	-0.2
Massachusetts	7.8	0.1	Virginia	7.0	-0.7
Michigan	7.4	-0.3	Washington	7.8	0.1
Minnesota	7.7	-0.0	West Virginia	8.3	0.6
Mississippi	6.9	-0.8	Wisconsin	7.6	-0.1
			Wyoming	8.4	0.7
			NATIONAL MEAN	7.6	
			10th percentile	7.1	
			90th percentile	8.3	

Source: Exhibit 5B.4

cases are more likely to be in a scheduled-event month -- that is, to be monthly reporters or to have short certification periods -- and cases in scheduled-event months have fewer interim changes than those in non-event months.

Total Worker Time for Interim Changes

Workers in the average State are estimated to handle interim changes for 7.6 percent of the State's caseload each month. Each change requires an estimated 15 minutes of eligibility worker effort, plus 4 supervisor minutes and 13 support staff minutes. Combining these factors, an average office with a caseload of 1,000 will require 19 hours of eligibility worker time for interim changes (Exhibit 5.4). The time requirements for supervisors and support staff are 5 and 14 hours respectively.

Interim changes are thus the least time consuming of the major certification tasks. The 19 hours of eligibility worker time compares to 84 hours for recertification, 65 hours for initial certifications, and 45 hours for monthly reporting. The limited time for interim changes results both from the small fraction of the caseload that has interim changes each month and from the relatively short time spent handling the typical change (15 minutes for eligibility workers).

Caseload characteristics cause some States to have to perform more interim changes than others, and hence to need more worker time for interim changes. The only effect of case characteristics considered in this analysis is the effect on task frequency; it appears that case characteristics have no important effect on the length of time a worker spends to handle a given interim change. Variation in total worker time for interim changes therefore mirrors the pattern seen earlier for interim change rates. The five States with the heaviest interim change workload are estimated to require over 20.5 hours of eligibility worker time per month for each 1,000 cases. The five at the opposite end of the range require less than 17.7 hours.

Conclusion

Of the four major certification tasks, interim changes requires the smallest amount of worker time and its time requirements are least affected by features of the program environment. This is not to say that no effect

Exhibit 5.4

PREDICTED TOTAL ELIGIBILITY WORKER TIME: INTERIM CHANGE

STATE	Predicted Hours Per Thousand Cases	Predicted Difference from National Avg. Due to Environmental Factors	STATE	Predicted Hours Per Thousand Cases	Predicted Difference from National Avg. Due to Environmental Factors
Alabama	18.0	-1.2	Missouri	19.1	-0.1
Alaska	20.7	1.5	Montana	19.4	0.2
Arizona	21.2	2.0	Nebraska	18.7	-0.5
Arkansas	19.1	-0.1	Nevada	17.9	-1.3
California	19.6	0.4	New Hampshire	18.6	-0.6
Colorado	19.3	0.1	New Jersey	19.3	0.1
Connecticut	20.1	0.9	New Mexico	20.3	1.1
Delaware	18.5	-0.7	New York	18.3	-0.9
Dist. of Col.	16.6	-2.6	North Carolina	18.3	-0.9
Florida	18.1	-1.1	North Dakota	19.2	0.0
Georgia	17.6	-1.6	Ohio	18.3	-0.9
Hawaii	18.3	-0.9	Oklahoma	20.8	1.6
Idaho	19.7	0.5	Oregon	18.5	-0.7
Illinois	18.3	-0.9	Pennsylvania	19.1	-0.1
Indiana	20.1	0.9	Rhode Island	19.5	0.3
Iowa	18.9	-0.3	South Carolina	17.3	-1.9
Kansas	18.9	-0.3	South Dakota	19.8	0.6
Kentucky	20.5	1.3	Tennessee	19.2	0.0
Louisiana	18.4	-0.8	Texas	19.2	-0.0
Maine	18.6	-0.6	Utah	20.3	1.1
Maryland	18.1	-1.1	Vermont	18.7	-0.5
Massachusetts	19.4	0.2	Virginia	17.5	-1.7
Michigan	18.3	-0.9	Washington	19.4	0.2
Minnesota	19.0	-0.2	West Virginia	20.5	1.3
Mississippi	17.1	-2.1	Wisconsin	18.8	-0.4
			Wyoming	20.9	1.7
			NATIONAL MEAN	19.2	
			10th percentile	17.7	
			90th percentile	20.5	

Source: Exhibit 2D.4

exists. The five States with the most demanding caseload in this regard are estimated to spend 16 percent more time handling interim changes, other things equal, than the five States with the least demanding caseload. Nonetheless, this effect is smaller than comparably defined measures for initial certification, recertification or monthly reporting.

The estimated effect results entirely from case characteristics' influence on the number of interim changes that must be performed. No major effect was hypothesized or found on the time required to handle an interim change. It is possible that a minor effect could exist: some kinds of cases might be more likely to have interim changes that take more time to process. The limited available evidence does not indicate that such a difference would be important, however.

Although States' policies regarding interim changes do not differ much, their policies concerning monthly reporting and certification periods influence the amount of effort they must spend on interim changes. Households have relatively few interim changes in months when they submit a monthly report or have a recertification interview. Thus a State that requires most cases to report monthly or assigns very short certification periods will handle fewer interim changes, other things being equal, than a State with few monthly reporters and long certification periods.

CHAPTER SIX

SUMMARY: THE WORKLOAD EFFECT

The past four chapters have examined the impact of a State's caseload characteristics and economic conditions on the amount of worker time that must be devoted to each of the four major certification tasks. This chapter summarizes those findings to provide a perspective on the overall "workload effect" of the program environment.

Average Time Requirements

Based on the "national average" projections in previous chapters, a local food stamp office with a caseload of 1,000 performs one of the four major certification tasks for just over half of its cases each month (Exhibit 6.1). This includes 87 initial certifications, 118 recertifications, 233 monthly reports (not counting those submitted in the same month the case is recertified), and 76 interim changes.¹

An estimated 241 hours of eligibility worker time is directly involved in performing these tasks. Recertifications and initial certifications account for the largest amounts of time, at 89 and 88 hours, respectively. Monthly reporting requires 45 hours and interim changes consume by far the least time, at 19 hours.

About half as much support staff time is required, in total, for these same tasks. The 111 hours of support staff time is allocated across the tasks roughly in proportion to the number of tasks performed. This occurs because the average time required when a task occurs is fairly similar for all four tasks.

Supervisors' direct participation in the tasks is more limited, totaling less than 40 hours. The relatively low total results because many

¹The figures for initial certifications and recertifications are higher than those shown in previous chapters because an adjustment has been made for actions that end in a denial of benefits. The adjustment involves inflating the predicted number of initial certifications and recertifications by the median denial rate in the four study States. Thus the number of initial certifications is inflated by 34.5 percent, and recertifications by 6.0 percent.

Exhibit 6.1

AVERAGE TIME REQUIREMENTS FOR THE FOUR MAIN CERTIFICATION TASKS

TASK	TASKS PER THOUSAND CASES	TOTAL ELIGIBILITY WORKER TIME (HOURS)	TOTAL SUPERVISOR TIME (HOURS)	TOTAL SUPPORT TIME (HOURS)	TOTAL WORKER TIME (HOURS)
Initial Certification	87	88.0	12.0	22.3	122.3
Recertification	118	89.4	12.3	29.9	131.6
Monthly Reporting	233	44.5	10.6	44.4	99.5
Interim Change	<u>76</u>	<u>19.2</u>	<u>4.9</u>	<u>14.1</u>	<u>38.2</u>
TOTAL	514	241.1	39.8	110.7	391.6

Sources: Exhibits 2D.1-2D.4 and ratio of approved-plus-denied to approved initial certifications and recertifications (1.345 and 1.060, respectively).

Exhibit 6.2

WORKLOAD INDEX FOR FOUR CERTIFICATION TASKS (COMBINED)

STATE	Workload Index Based on National Average Policy	Differences from National Average Due to Environmental Factors	STATE	Workload Index Based on National Average Policy	Differences from National Average Due to Environmental Factors
Alabama	0.93	-0.07	Missouri	0.97	-0.03
Alaska	1.21	0.21	Montana	1.17	0.17
Arizona	1.12	0.12	Nebraska	1.17	0.17
Arkansas	0.80	-0.20	Nevada	0.88	-0.12
California	1.09	0.09	New Hampshire	0.96	-0.04
Colorado	1.20	0.20	New Jersey	0.88	-0.12
Connecticut	0.94	-0.06	New Mexico	1.01	0.01
Delaware	0.95	-0.05	New York	0.88	-0.12
Dist. of Col.	0.77	-0.23	North Carolina	0.97	-0.03
Florida	0.88	-0.12	North Dakota	0.89	-0.11
Georgia	0.86	-0.14	Ohio	0.89	-0.11
Hawaii	1.10	0.10	Oklahoma	1.07	0.07
Idaho	1.20	0.20	Oregon	1.04	0.04
Illinois	0.80	-0.20	Pennsylvania	0.86	-0.14
Indiana	1.00	0.00	Rhode Island	0.90	-0.10
Iowa	1.05	0.05	South Carolina	0.88	-0.12
Kansas	1.10	0.10	South Dakota	1.24	0.24
Kentucky	1.00	-0.00	Tennessee	0.95	-0.05
Louisiana	0.93	-0.07	Texas	1.17	0.17
Maine	1.09	0.09	Utah	1.23	0.23
Maryland	0.94	-0.06	Vermont	1.01	0.01
Massachusetts	0.99	-0.01	Virginia	0.97	-0.03
Michigan	0.80	-0.20	Washington	0.99	-0.01
Minnesota	1.06	0.06	West Virginia	0.92	-0.08
Mississippi	0.87	-0.13	Wisconsin	1.13	0.13
			Wyoming	1.30	0.30
			NATIONAL MEAN	1.00	
			10th percentile	0.86	
			90th percentile	1.20	

Source: Exhibit 9.1

for some of its components because a single State does not generally have extreme values on all four tasks. Nonetheless, the workload measures for the four tasks are all positively correlated. There is no important counter-effect, in which States with very high workloads for one task would have very low workloads for another. Rather, a State with a very high predicted value on one measure is likely to have a moderately high value on the others.

This pattern can be seen in the four study States in Exhibit 6.3. Arkansas, which has the third-lowest value on the overall workload index, is among the ten lowest on initial certification, recertification, and monthly reporting, but around average on interim changes. Colorado, which is fifth highest overall, is in the top five on initial certification and recertification, but in the mid-range on the other tasks.

The factors contributing to workload variation, as indicated in previous chapters, are those case characteristics and economic conditions generally associated with volatility. Although the composite workload index is built up out of these analyses, it is very difficult to trace the effects of individual factors. To provide a perspective on the main sources of workload variation, then, a regression model was estimated in which the composite index was treated as a function of variables that proved important in the individual task models. Various versions of the model were tested with the objective of finding the simplest model that would explain most of the variation in the States' index values.

Three caseload characteristics and two area economic descriptors account for most of the variation:

- the presence of earnings in the case;
- the presence of unearned income when none of it comes from AFDC, GA, SSI, or Social Security;
- a head of household over age 59;
- the State unemployment rate (1986); and
- the change in the State unemployment rate from 1985 to 1986.

A State with a high concentration of food stamp cases with earnings or non-program income will tend to have a high value on the workload index, while a concentration of elderly households leads to a lower value. Low

Exhibit 6.3

RANK ORDER OF STATES ON WORKLOAD INDEX
AND COMPONENT TASK INDICES¹

STATE	Initial Cert.	Recert.	Monthly Reporting	Interim Change	Workload Index
Alabama	18	26	17	7	17
Alaska	50	17	42	48	48
Arizona	42	37	22	51	41
Arkansas	6	9	2	28	3
California	31	27	49	39	37
Colorado	47	49	34	33	47
Connecticut	10	36	24	43	19
Delaware	15	41	27	17	21
Dist. of Col.	1	6	9	1	1
Florida	16	18	5	9	10
Georgia	7	21	7	5	5
Hawaii	40	20	40	15	39
Idaho	48	29	44	40	46
Illinois	4	5	8	12	4
Indiana	25	23	36	42	29
Iowa	34	11	46	25	34
Kansas	36	47	39	24	40
Kentucky	37	8	18	46	30
Louisiana	26	4	28	16	18
Maine	35	44	41	20	38
Maryland	14	48	12	8	20
Massachusetts	22	50	16	35	27
Michigan	2	3	25	11	2
Minnesota	33	28	43	26	35
Mississippi	8	12	30	2	8
Missouri	20	31	29	29	23
Montana	49	19	37	37	44
Nebraska	43	38	45	22	45
Nevada	32	2	3	6	11
New Hampshire	21	43	23	19	26
New Jersey	3	30	13	34	7
New Mexico	38	7	26	44	31
New York	13	25	6	10	9
North Carolina	19	51	15	14	24
North Dakota	28	15	1	31	14
Ohio	11	10	31	13	13
Oklahoma	41	24	11	49	36
Oregon	39	14	32	18	33
Pennsylvania	9	13	10	27	6
Rhode Island	12	32	4	38	15
South Carolina	5	33	19	3	12
South Dakota	45	45	48	41	50
Tennessee	24	22	14	32	22
Texas	44	46	33	30	43
Utah	46	42	47	45	49
Vermont	29	39	20	21	32
Virginia	23	35	21	4	25
Washington	27	16	35	36	28
West Virginia	17	1	50	47	16
Wisconsin	30	40	51	23	42
Wyoming	51	34	38	50	51

¹ States ranked from 1 (lowest workload predicted on the basis of environmental factors) to 51 (highest predicted workload).

Source: Exhibit 2D.5

unemployment rates and increasing unemployment rates also contribute to high State index values.

Workload and Reported Certification Cost

Do the workload variations stemming from States' program environments have any bearing on their reported costs? Or do their policy differences and varying management practices cancel out the effect of the underlying differences in the job they face? It is not possible to answer these questions fully, because many other factors may also affect reported costs. Nonetheless, we compared the States' workload index values to their Fiscal Year 1986 reported certification costs to see whether any relationship at all could be found.

The analysis indicates that a positive relationship exists, but not a strong one. The relationship is significant at the 90 percent confidence level. When no other factors are considered, the workload index explains eight percent of the variance in reported certification costs. Thus, although the program environment's influence on workload is partly visible, this is clearly not the main reason for the wide disparities in States' reported costs.

Conclusion

Features of the program environment have been shown in previous chapters to mean that different States would be expected to perform different amounts of work for each of the four major certification tasks. Combining the four tasks, we see that their individual effects are attenuated but do not cancel out: potentially important workload differences are still found. Other things being equal, the five States with the most demanding environment would need over 39 percent more resources -- 39 percent more eligibility workers, for example -- than the five States at the opposite end of the spectrum.

The general theme is that States with more volatile caseloads -- that is, caseloads with concentrations of households whose circumstances may be expected to change frequently -- have heavier workloads. States with high concentrations of elderly households have relatively low values on the workload index, because those households' circumstances are relatively

stable. Concentrations of households with earnings or non-program unearned income mean heavier workloads, because these households frequently enter and leave the program or experience changes in their allotment amount. Low unemployment rates or rising unemployment rates, the economic conditions associated with high turnover or caseload build-up, also increase the amount of work a State must perform per active case.

The effect of these environmental factors is visible in reported certification costs, but only dimly. The absence of a strong effect is not surprising. We have seen in previous chapters that States' actual policies, particularly for recertification and monthly reporting, differ widely from the "national average" policy used in projecting the workload effect. Many other factors may also contribute to differences in reported certification cost. Among these may be additional environmental forces not measured here, management practices or strategies (such as the level of automation), and accounting practice. The next two chapters will explore some of these additional factors.

CHAPTER SEVEN

OTHER COMPONENTS OF WORKER CERTIFICATION TIME

Previous chapters have shown that program environment affects the administrative workload for the four major certification tasks of initial certification, recertification, monthly reporting, and interim changes. These four tasks do not account for all worker time for the food stamp certification function, however. This chapter examines the remaining components of worker time and addresses the question of whether program environment might influence these time requirements as well.

Two additional components of worker time are examined. The first is a series of "supplementary" certification tasks, tasks that are less frequent or less central to the certification function than the four examined earlier. The second time component consists of activities not associated with processing any particular case, labeled "non-case handling" time.

Case characteristics or local economic conditions could potentially affect these worker time components in two ways. First, as with the tasks examined in previous chapters, they could influence the frequency with which particular activities must be performed or the length of time it takes to perform them a single time. Second, the effects previously seen for the major certification tasks might have an indirect or multiplier effect. For example, workers may need to spend a certain percentage of their time on non-case handling activities. To the extent that this is true, any increase in the time required for case handling tasks will result in a proportional increase in non-case handling time.

The overall research design gave the time components discussed in this chapter a lower priority than the issues examined in previous chapters. The data are correspondingly weaker, with most analyses based entirely on survey responses rather than data from the automated systems or the time log study. Some major uncertainties, particularly concerning any indirect or multiplier effect of environmental factors, remain to be resolved by future research.

Worker Time for Supplemental Certification Tasks

Although the four tasks discussed thus far make up the core of the certification effort in the local office, several other tasks also require worker time. These include:

- IEVS. The Income and Eligibility Verification System is a nationally mandated process of computer matching in which external data bases, such as Unemployment Insurance records, are used to identify possible discrepancies in the information on which households' food stamp allotments are based. Most States periodically match their whole caseload roster against some or all of their IEVS data bases. Local offices receive lists of cases with potential discrepancies (as indicated by a "hit" in the computer match). Eligibility workers must follow up to determine whether a discrepancy exists and, if so, to adjust the allotment.
- Field Investigations. Eligibility workers sometimes visit clients' homes or other locations (e.g., landlords or employers) to obtain information. This mainly occurs in the study States when the eligibility worker has reason to suspect that incorrect or misleading information was given by the client. Eligibility workers perform field investigations routinely in Arkansas and New Mexico, where workers are required to make three such visits per month. Alabama and Colorado have no such policy, and field investigations occur only as a rare exception.
- Overpayment Claims. When an agency determines that a household has received food stamps to which it was not entitled, the State is required by law to establish a claim against the household and collect the overissuance. The initial effort to identify the overissuance and determine the appropriate amount of the claim is normally performed by an eligibility worker.
- Lost or Stolen Coupons. In areas where coupons are issued by mail, which includes nearly all of Arkansas and New Mexico, most of Alabama, and some of Colorado, recipients sometimes report that their coupons were lost or stolen from the mail. The eligibility worker must determine the validity of the claim, issue replacement coupons if appropriate, and possibly initiate actions to deliver future benefits by an alternate means.
- Fair Hearings and Fraud Hearings. When clients appeal an agency action or are accused of fraud, a hearing

takes place. The eligibility worker must prepare background information for the hearing and often must appear at the hearing to present the information.

These tasks have several features in common, from the perspective of this study. First, they are generally viewed by program operators as "secondary" tasks, less important than the four major tasks in the central certification objective of determining eligibility and allotments. Viewing these tasks as secondary also tends to imply -- not always correctly, as we shall see -- that they affect fewer cases or take less worker effort than the main tasks.

Whether secondary or not, these tasks were not amenable to investigation through the same procedures used for the four major tasks. None of them normally generate records in the automated master household files. Most occur so rarely that adequate samples cannot be obtained in a time log study of the scale carried out here. For these reasons, worker time devoted to these tasks was measured solely through surveys.

Of the five tasks, only IEVS follow-ups occur for more than a tiny fraction of the caseload in a month (Exhibit 7.1). Workers in the four States estimate that they follow up on matches for five to nine percent of their caseload each month. They perform the other tasks for one percent or fewer of their cases, with the exception of field investigations in New Mexico, which are reported as happening for three percent of the cases.

Some of the relatively rare tasks take substantial time when they do occur. Workers say that field investigations take from one to two and one-half hours, and most of the estimates for hearings and overpayment claims also exceed an hour. IEVS follow-ups, in contrast, average 10 to 21 minutes.

Combining the minutes per case month for all five tasks, we see wide state-to-state variation -- from about one minute in Alabama to over five minutes in New Mexico. This variation seems principally to be caused by policy and procedural factors. For example, Arkansas and New Mexico require eligibility workers to perform field investigations routinely, adding a large amount of eligibility worker time. The same two States have mail issuance systems, which entails eligibility worker time for dealing with lost and stolen coupons. IEVS variations appear related to the nature of the computer

Exhibit 7.1

WORKER TIME FOR SUPPLEMENTARY CERTIFICATION TASKS

	ALABAMA	ARKANSAS	COLORADO	NEW MEXICO
ELIGIBILITY WORKER				
IEVS:				
Frequency ¹	5.24%	9.41%	8.04%	4.56%
Minutes per Task	10.0	12.5	20.9	16.5
Minutes per Case Month	.88	1.04	2.41	1.04
Field Investigations				
Frequency	.01%	.98%	.04%	3.18%
Minutes per Task	155.0	90.1	68.2	121.7
Minutes per Case Month	.02	.97	.02	3.7
Overpayments:				
Frequency	.11%	.03%	.97%	.06%
Minutes per Task	88.0	57.4	46.8	83.5
Minutes per Case Month	.05	.01	.43	.01
Lost/Stolen Coupons:				
Frequency	.18%	1.16%	.12%	1.36%
Minutes per Task	19.1	19.8	26.1	29.4
Minutes per Case Month	.03	.25	.03	.41
Fair Hearings				
Frequency	.12%	.25%	.13%	.31%
Minutes per Task	77.8	58.5	75.1	110.8
Minutes per Case Month	.03	.05	.08	.12
TOTAL MINUTES PER CASE MONTH				
	1.01	2.32	2.97	5.28
SUPERVISOR				
IEVS:				
Minutes per Case Month	.12	.08	.10	.29
Field Investigations:				
Minutes per Case Month	.11	.17	.05	.44
Overpayments:				
Minutes per Case Month	.11	.06	.14	.19
Lost/Stolen:				
Minutes per Case Month	.01	.05	.02	.12
Fair Hearings:				
Minutes per Case Month	.11	.10	.06	.38
TOTAL MINUTES PER CASE MONTH				
	.46	.43	.37	1.42

Exhibit 7.1

WORKER TIME FOR SUPPLEMENTARY CERTIFICATION TASKS
(continued)

	ALABAMA	ARKANSAS	COLORADO	NEW MEXICO
SUPPORT STAFF				
IEVS:				
Minutes per Case Month	.30	.54	.66	.36
Field Investigations:				
Minutes per Case Month	.00	.07	.00	.29
Overpayments:				
Minutes per Case Month	.01	.00	.20	.01
Lost/Stolen:				
Minutes per Case Month	.01	.08	.01	.10
Fair Hearings:				
Minutes per Case Month	.01	.02	.01	.06
TOTAL MINUTES PER CASE MONTH	.33	.71	.88	.82

¹Percent of cases for which task is performed in a month.

matches and the policies regarding follow-up. In none of these instances do case characteristics seem likely to be an important source of variation.

Together, the five tasks add from 17 to 88 hours to the amount of eligibility worker time needed to handle 1,000 cases in a month (Exhibit 7.2). This means that supplementary tasks add between 7 and 28 percent to the amount of eligibility worker time required for the four major certification tasks.

Supervisor and support staff time for the five supplementary tasks varies somewhat less across States. Supervisory time amounts to 6-8 hours in three States, but almost 24 hours in New Mexico (mainly because of the large amount of time estimated for field investigations and hearings). The range for support staff is 5-14 hours per month for a caseload of 1,000. Probably because many of these tasks are rare and require special procedures, the amount of supervisor time is relatively high. Thus the five tasks add only 4-11 percent to the support staff time already required for the four major tasks, but the addition is generally substantially greater for supervisors (over 20 percent for three of the four States).

Two points should be borne in mind in interpreting the time estimates for the supplementary tasks. First, all of the estimates are based on survey responses, and comparisons of time logs with survey data suggest that survey responses tend to be biased upwards. Second, this list of five tasks is not exhaustive, so eligibility workers spend additional time in case management that is not captured here. These two factors clearly tend to offset each other, but probably not exactly evenly. Thus the estimates must be considered subject to some unknown bias.

Non-Case Handling Time

Eligibility workers, their supervisors, and support staff spend some time in activities that are not direct case handling -- that is, they do not contribute to a particular household's application for or receipt of food stamp benefits. Examples of non-case handling tasks for eligibility workers include attending staff meetings or training sessions, reading bulletins on policy or procedural changes and updating manuals, participating in special projects, engaging in performance reviews, or "down time" spent waiting for clients to arrive for interviews or taking a coffee break.

Exhibit 7.2

ESTIMATED TOTAL WORKER TIME FOR
SUPPLEMENTAL CERTIFICATION TASKS
(HOURS PER 1,000 CASE MONTHS)

	ALABAMA	ARKANSAS	COLORADO	NEW MEXICO
Eligibility Workers	16.83	38.67	49.50	88.00
Supervisors	7.67	7.67	6.17	23.67
Support Staff	5.39	11.82	13.78	13.77
TOTAL	29.89	58.17	69.45	125.44

Eligibility workers in the four study States estimated that they spend 12 to 20 percent of their time in such non-case handling activities (Exhibit 7.3). Supervisors and support staff gave slightly higher estimates, at 20 to 27 percent and 14 to 25 percent, respectively.

It is quite likely that the worker responses underestimate the true proportion of non-case activity. The activities are vaguely defined and, in the case of down time, may be regarded as not fully legitimate. Accordingly it is reasonable to expect respondents to give less weight to these activities than to the ones that are a clearly defined part of their job. Although little literature exists on this topic, one perspective is provided by a random moment observation study in a large welfare office in Illinois.¹ Eligibility workers were observed to spend 17 to 31 percent of their time in work activities that did not involve specific cases, plus an additional 11 percent in non-work activity (breaks and down time). Supervisors spent much more time -- 44 to 60 percent -- in non-case handling, and had levels of non-work time comparable to the eligibility workers'. Thus it is possible that the worker responses in this study might underestimate the true level of non-case handling by as much as a factor of two. For the present analysis, however, we have no strong basis for adjusting the actual responses, and apply them at face value.

Non-case handling time is not hypothesized to be directly influenced by caseload characteristics or local economic conditions. An indirect impact is theoretically possible, if additional time spent on case-specific tasks generates a requirement for more non-case time. The data collected in this study do not address this question, however.

Total Worker Time

Combining all elements of worker activity, the estimated total eligibility worker time in a month to handle 1,000 food stamp cases ranges from 313 to 557 hours in the four study States (Exhibit 7.4). Supervisor time

¹Donna D. Warner, William L. Hamilton, and Bonnie R. Nutt-Powell, The Effects of Monthly Reporting on AFDC Administrative Costs in Illinois. Cambridge, MA: Abt Associates Inc., 1985. Companion studies were performed in several offices in Massachusetts and Michigan. The patterns appear comparable to those in Illinois, although the reported data do not allow disaggregation of non-case handling time by class of worker.

Exhibit 7.3

WORKER ESTIMATES OF TIME FOR NON-CASE HANDLING ACTIVITIES
(PERCENT OF TOTAL WORKER TIME)

	ALABAMA	ARKANSAS	COLORADO	NEW MEXICO
Eligibility Worker	14.9%	15.6%	12.1%	20.4%
Supervisor	27.1	20.5	19.7	22.4
Support Staff	13.5	18.3	21.5	25.1

Exhibit 7.4

TOTAL WORKER TIME ON CASE AND NON-CASE HANDLING ACTIVITIES
(HOURS PER 1,000 CASE MONTHS)

	ALABAMA	ARKANSAS	COLORADO	NEW MEXICO
ELIGIBILITY WORKERS				
Four Main Tasks ¹	262.03	225.61	236.72	355.42
Supplemental Tasks	16.83	38.67	49.50	88.00
Non-Case Handling Activity	48.83	48.85	39.40	113.64
TOTAL	327.69	313.13	325.62	557.06
SUPERVISORS				
Four Main Tasks ¹	36.03	32.33	65.84	29.94
Supplemental Tasks	7.67	7.67	6.17	23.67
Non-Case Handling Activity	16.24	10.31	17.67	15.48
TOTAL	59.94	50.32	89.68	69.08
SUPPORT STAFF				
Four Main Tasks ¹	115.38	115.75	123.98	147.91
Supplemental Tasks	5.39	11.82	13.78	13.77
Non-Case Handling Activity	18.85	28.57	37.73	54.18
TOTAL	139.63	156.14	175.50	215.85

¹Using actual task frequencies and mean task times as seen in the study States' automated data and time logs.

estimates range from 50 to 90 hours, and support staff estimates from 140 to 216 hours.

The bulk of the worker time is spent on the four tasks analyzed in Chapters 2 through 5: initial certifications and recertifications, monthly reporting, and interim changes. These tasks account for 64 to 80 percent of estimated eligibility worker and support staff time, and 43 to 73 percent of supervisor time.

Assembling the component time estimates provides an opportunity to assess the plausibility of the overall picture. The most obvious point is that the overall time estimates appear low. The estimates for eligibility workers, for example, would imply an eligibility worker caseload of 250 to 450 cases.¹ This is substantially more than the levels that workers reported in the four study States, which averaged 200 to 260 cases.

Three factors probably account for this disparity. First, it is likely that the time log estimates do not capture some "incidental" time associated with the major tasks, such as time spent looking for a file folder or making unsuccessful attempts to reach collateral contacts. Second, our list of supplemental tasks omits some rare or hard-to-quantify tasks, such as making supplemental issuances or handling client inquiries not related to any of the other tasks. Third, the workers' estimates of the proportion of their time allocated to non-case handling are probably substantially understated.

Although the total hour estimates seem low, the ratios between the totals for different types of workers seem quite plausible. On average, the totals imply about one supervisor for every five eligibility workers and one support person for every two eligibility workers. This is roughly comparable to the patterns observed in the study States.

Conclusion

Eligibility worker time for the four major certification tasks, as presented in previous chapters, averaged about 262 hours per month for a

¹This assumes a work year of 240 days and a 7-hour work day (not counting lunch and break time).

caseload of 1,000 in the four study States.¹ Supervisor and support staff time averaged about 45 hours and 129 hours, respectively.

Adding in survey estimates of the time spent on supplementary tasks and non-case handling activities, the time for the four main tasks would appear to represent two-thirds to three-quarters of the total time spent by eligibility workers and support staff, and a somewhat smaller proportion of supervisor time. However, adding together the time components measured in the time logs and surveys produces a total which is substantially less than the total worker time in the study States. Thus it is likely that the estimated eligibility worker time for the four major tasks is in the vicinity of 40 to 50 percent of the total, rather than 67 to 75 percent.

The question of greatest interest for this study is whether the effects estimated in Chapters 2 through 5 represent the full impact of case characteristics and local economic conditions, or whether the true impact is much greater. In other words, is the remaining 50 to 60 percent of eligibility worker time spent in proportion to the time spent on the four major tasks, or does it reflect the requirements of independent events?

Unfortunately, the available data cannot address this question fully. The "supplementary" certification tasks, such as following up on computer matches or conducting field investigations, appear not to be affected by case characteristics, but they account for relatively little worker time -- less than a fifth as much as the four main tasks. The remaining time could be argued to be either proportional to direct case handling time or independent of it. The present study provides no solid evidence to support either view. Thus, although one cannot conclude that case characteristics have an indirect multiplier effect, the possibility remains open that the true effect could be substantially greater than that measured in previous chapters.

¹Weighted averages with weights based on the States' caseloads.

CHAPTER EIGHT

BEYOND WORKER EFFORT: OTHER DETERMINANTS OF CERTIFICATION COST

Previous chapters have examined the efforts that food stamp workers expend in managing their caseload and the ways that features of the program environment affect that effort. We turn now to translating that effort into dollar costs and to examining some additional elements of certification cost.

Workers' efforts become agency expenditures (labor cost) through their wage rates. Wage rates may themselves be affected by local economic conditions, which establish regional wage trends. This impact is examined in the first section below.

Two elements are added to labor cost to get total certification cost: non-labor costs, such as data processing, and indirect costs such as management and overhead. These are not hypothesized to be affected by the program environment. We examine them in order to put direct labor costs in perspective and to see whether they contribute importantly to the cross-state variation in total reported certification costs.

Because the Food Stamp Program pays only a part of the cost of administering PA cases, the size of a State's PA caseload has an important bearing on total reported food stamp certification cost. The final topic covered in this chapter is therefore the States' cost allocation procedures, the mechanism through which the proportion of PA cases affects the cost totals reported to FNS.

Regional Wage Variation

Because labor costs account for the bulk of all certification costs, regional economic factors might be expected to cause interstate variation in wage rates, and hence in total certification costs.

Analysis indicates that regional wage variation is in fact important. A wage index was constructed, based on annual average pay for

State government workers.¹ This seems to be a good measure of the environment that the State food stamp manager faces: the wages paid to State workers in general will establish the range within which the manager must operate in setting compensation levels for food stamp workers.²

The five States with the highest index values face labor prices about 44 percent greater than costs in the five States with the lowest values (Exhibit 8.1). This difference is comparable in magnitude to the workload effect, but it may have a greater potential impact on total cost because it affects all worker activities rather than just the four major tasks.

States' wage rates for food stamp workers may differ for reasons other than economic conditions. Thus the index does not account for the differences in average wage rates that were observed in the four study States. This does not mean that economic conditions have no effect, but rather that their effect combines with factors such as skill requirements, average tenure, and States' generosity in establishing wage levels.

Analysis indicates that economic conditions are an important cause of variation in States' administrative costs. The wage index explains 19 percent of the variance in the 51 States' reported certification costs. The effect on total administrative costs, including functions other than certification, is even more powerful: the wage index explains 29 percent of the variance.

The finding that the wage index is more closely related to States' total costs than to their certification costs probably stems from two factors. First, different accounting and reporting practices mean that costs attributed to certification in some States are reported in other categories by other States. Thus the reported cost of the certification function (or any other individual function) is subject to some artificial variation that

¹Annualized average earnings for full-time State government employees in October 1985. U.S. Bureau of the Census, Statistical Abstract of the United States: 1988 (108th Edition), Washington, D.C., 1987:285.

²Because food stamp workers' salaries are included in the total for all State workers, there is a potential danger of circularity in using this index. In the four study States, however, total Food Stamp Program administrative costs amount to only about 1 to 2 percent of total State workers' salaries. Thus the risk of circularity appears negligible.

Exhibit 8.1

WAGE INDEX BY STATE

STATE	Wage Index	Difference from National Average	STATE	Wage Index	Difference from National Average
Alabama	1.00	0.00	Missouri	0.82	-0.18
Alaska	1.60	0.60	Montana	0.97	-0.03
Arizona	1.09	0.09	Nebraska	0.76	-0.24
Arkansas	0.88	-0.12	Nevada	1.05	0.05
California	1.37	0.37	New Hampshire	0.86	-0.14
Colorado	1.24	0.24	New Jersey	1.10	0.10
Connecticut	1.12	0.12	New Mexico	0.92	-0.08
Delaware	0.93	-0.07	New York	1.17	0.17
Dist. of Col.	1.32	0.32	North Carolina	0.99	-0.01
Florida	0.89	-0.11	North Dakota	0.95	-0.05
Georgia	0.92	-0.08	Ohio	0.99	-0.01
Hawaii	0.95	-0.05	Oklahoma	0.92	-0.08
Idaho	0.95	-0.05	Oregon	1.02	0.02
Illinois	1.08	0.08	Pennsylvania	0.97	-0.03
Indiana	1.02	0.02	Rhode Island	1.01	0.01
Iowa	1.04	0.04	South Carolina	0.89	-0.11
Kansas	0.88	-0.12	South Dakota	0.84	-0.16
Kentucky	0.86	-0.14	Tennessee	0.89	-0.11
Louisiana	0.89	-0.11	Texas	1.01	0.01
Maine	0.90	-0.10	Utah	0.96	-0.04
Maryland	1.02	0.02	Vermont	0.90	-0.10
Massachusetts	1.04	0.04	Virginia	0.95	-0.05
Michigan	1.15	0.15	Washington	1.06	0.06
Minnesota	1.21	0.21	West Virginia	0.78	-0.22
Mississippi	0.76	-0.24	Wisconsin	1.07	0.07
			Wyoming	1.03	0.03
			NATIONAL MEAN	1.00	
			10th percentile	0.84	
			90th percentile	1.21	

Source: Annualized average earnings for full-time State government employees in October 1985, U.S. Bureau of the Census, Statistical Abstract of the United States: 1988 (108th edition), Washington, D.C., 1987: 285.

disappears when costs are aggregated. Second, although environmental factors affect the amount of certification work that must be performed, analogous effects may not exist for other functions. Thus the costs of these other functions may be determined more purely by regional price factors in combination with State policies and procedures.

Non-Labor Costs of Certification Tasks

The certification costs reported by States consist mainly of labor costs (salaries and fringe benefits). In the four study States, labor cost ranged from 80 to 86 percent of total reported certification cost. Moreover, much of the non-labor cost was not attributable to specific certification tasks, but represented general overhead items such as office space, equipment and supplies.

Nonetheless, a few non-labor expenditures can be attributed to particular certification tasks, at least in principle. Specific forms are used and notices mailed for a recertification, for example. Similarly, the recertification involves a specific set of computer transactions and calculations. In certain situations, the recertification may require the eligibility worker to travel, which means that transportation costs will be incurred.

In practice, States' accounting procedures do not allow these non-labor costs to be attributed to specific tasks with any precision. Forms and postage expenditures tend to be aggregated across all tasks, recorded only at the State level, and allocated among functions on the basis of some external statistic such as the proportionate share of labor dollars. Travel costs are typically recorded at the local office level and attributed directly to certification, but not broken out in terms of the tasks discussed here. Automated data processing costs are recorded at the State level, and broken down into categories that do not generally correspond to the tasks considered here; data processing costs are reported to FNS as a separate category, with no costs specifically attributed to certification.

Despite these limitations, information from the four study States provides at least a rough perspective on the importance of these non-labor costs. For the most part, non-labor costs appear to be a small fraction of labor costs, but computer-related cost may in some instances be an

exception. The figures are summarized in Exhibit 8.2.

Travel costs did not occur as a routine part of the four major certification tasks except in New Mexico. To serve some of its remote areas, New Mexico operates "itinerant" offices which are staffed only one or two days a week by workers who travel from a central county office. Travel expenses, when averaged over the full State caseload, amount to \$0.12 for each initial certification, recertification, and interim change.

Forms and postage costs are incurred for each of the major certification tasks. The estimated average cost ranges from \$0.28 to \$0.95. Monthly reporting and recertification, which generally involve at least one mailing to the recipient, tend to have somewhat higher costs than the other two tasks.

Automated data processing cost estimates vary dramatically across the four study States. Colorado is at the low end of the scale, with estimates of eight to eleven cents per task. New Mexico's estimated costs are by far the largest, reaching \$5 to \$6 for a recertification or initial certification. Some of this extraordinary variation may be the artificial result of different accounting practices across the States, which made it impossible to use consistent rules or assumptions in estimating costs. Some of it doubtless reflects real differences in system operating costs, however. In particular, the high cost in New Mexico probably occurs in part because the system is much more ambitious and sophisticated than any of the other three, and in part because it was in its first year of operations and still experiencing some start-up costs.

Although sophisticated automated systems are sometimes viewed as a substitute for worker time, no such pattern is evident in the study States. New Mexico has the most sophisticated automated system and the highest data processing costs, but eligibility workers and support staff do not spend less time on certification tasks in New Mexico than elsewhere. (In fact, average times tend to be higher in New Mexico than in the other States, especially for initial certification and recertification.) The other three States have roughly similar automation approaches, and therefore might be expected to have similar data processing costs and worker times. But the analysis has shown substantial variation in both factors, with no strong tendency for data processing costs to be lower where worker times are higher. We therefore

Exhibit 8.2

**NON-LABOR COSTS IN THE FOURTH STUDY STATES
(DOLLARS PER INSTANCE THE TASK IS PERFORMED)**

COST SOURCE	ALABAMA	ARKANSAS	COLORADO	NEW MEXICO
INITIAL CERTIFICATION				
Travel	--	--	--	\$0.12
Forms & Postage	NA	\$0.32	\$0.60	0.39
ADP	\$1.84	0.39	0.11	6.04
RECERTIFICATION				
Travel	--	--	--	0.12
Forms & Postage	NA	0.78	0.59	0.64
ADP	0.92	0.45	0.08	5.02
MONTHLY REPORTING				
Forms & Postage	NA	0.95	0.48	0.51
ADP	0.99	0.28	0.08	1.02
INTERIM CHANGES				
Travel	--	--	--	0.12
Forms & Postage	NA	0.39	0.28	0.63
ADP	0.91	0.26	0.08	1.20

treat data processing costs and labor costs as independent factors rather than assuming a tradeoff between them.

It is difficult to generalize about the importance of non-labor costs because of the high data processing estimates in New Mexico. In Arkansas and Colorado, forms and postage plus data processing costs amount to 6 to 14 percent of labor costs for all tasks except monthly reporting, and about twice as much (13 to 29) percent for monthly reporting. Alabama's non-labor costs appear to be comparable or slightly higher; the absence of data on forms and postage precludes a specific estimate. New Mexico's non-labor costs constitute a substantially higher fraction of the total, at 21 to 43 percent of labor costs.

Features of the program environment might affect non-labor costs in two ways. First, the same regional economic forces that influence wage rates might influence non-labor prices. Second, to the extent that caseload characteristics and local economic conditions alter the frequency with which States must perform certification tasks, both labor and non-labor costs will be similarly affected. Because both of these effects have been estimated elsewhere, no separate analysis of environmental factors' impact on non-labor costs is performed here.

Indirect Cost

Indirect costs represent the resources needed to support workers' case handling and non-case handling activities. Examples include the office space, equipment and supplies used by eligibility workers, supervisors and support staff; the local office director and administrative staff, and the space and supplies they use; State-level managers with line responsibility for overseeing local office operations; and managerial and administrative personnel with overall responsibility for operating the Food Stamp Program in the State.

Although the study did not examine indirect cost in any detail, we wished to have a perspective on the importance of indirect cost in States' reported certification costs. The reporting instructions to the States indicate that indirect costs associated with the certification function should be reported as certification costs, but provide no detailed specification.

Hence it is difficult to establish an a priori expectation about how much of a State's total reported certification cost should be indirect cost.

For this analysis, indirect cost was measured by taking total certification cost and subtracting out the cost of eligibility workers, supervisors, support staff, and certification-related travel. Indirect cost, the residual, turns out to consist of different types of cost elements in each State, and differing shares of similar cost elements. For example, indirect costs in Arkansas are exclusively county-level costs, while the other three States include some State-level costs as well. New Mexico's accounting procedure attributes to certification a portion of many State-level costs, including some charges to the Department of Human Services from other departments.

Not surprisingly, then, indirect cost as a percentage of total certification costs varies significantly across the States. The rate is lowest in Colorado and Alabama, where indirect costs are 19 to 20 percent of the total. The highest rate is New Mexico's 34 percent.

It is clear that indirect cost can be a major reason for cost variation among States. If Alabama and New Mexico had exactly the same direct certification costs, New Mexico's reported total certification cost would be 23 percent greater simply because of the difference in the two States' indirect cost rates. Whether this disparity is an artifact of accounting procedures or a real difference in the cost of State operations cannot be judged by examining certification costs alone, but would require an analysis of the States' entire administrative cost structure.

Like non-labor costs, indirect costs might be affected by environmental factors in two ways. First, regional economic conditions that affect wage rates will similarly affect indirect costs, because labor is the principal component of indirect as well as direct costs. Second, at least some components of indirect cost would be expected to increase or decline in response to changes in direct cost. For example, if environmental factors cause more eligibility workers to be needed, more office space and supplies will be needed as well. Analyzing the extent to which indirect costs and direct costs move in concert is beyond the scope of the present study, however.

Cost Allocation

Workers who perform certification tasks for the Food Stamp Program commonly carry out similar tasks for other federally funded programs, such as AFDC and Medicaid, as well as State programs such as General Assistance. Federal regulations therefore establish guidelines for cost allocation procedures. States must use these procedures to establish the cost share that each funding source will pay.

The key issue here concerns certification tasks performed for PA households. The Food Stamp Program bears the full federal cost of any certification work done for NPA households, who receive no benefits other than food stamps. For households who receive AFDC as well as food stamps, the cost allocation guidelines indicate that the Food Stamp Program should bear only the incremental cost of providing the household with food stamps in addition to AFDC. A certification interview, for example, may include some questions that serve both the AFDC and Food Stamp Programs, some serving AFDC only, and some serving food stamps only. In principle, the Food Stamp Program should pay only for the time required to deal with the third group of questions. When the cost allocation guidelines were first established, it was estimated that 13 percent of the cost for PA cases actually pertained to food-stamp-only activities.¹

Previous research on AFDC costs has indicated that cost allocation approaches can have an important effect on the amounts reported for Federal reimbursement.² Clearly the percentage of PA households' certification costs that States actually allocate to food stamps will affect the amount reported to and reimbursed by the Department of Agriculture. For example, assume that a State's food stamp caseload is evenly split between PA and NPA households. Assume further that the State incurs \$20 in certification costs per case month, and that this expenditure is equal for PA and NPA households. If the State's allocation procedure attributes 10 percent of the PA case costs to

¹This estimate was used in a retroactive adjustment for Fiscal Year 1984 to re-allocate costs from the Department of Health and Human Services to the Department of Agriculture.

²Assessment of State Cost Allocation Methodologies and Other Factors that Influence Costs Assigned to Federal and State Public Assistance Programs. Washington, D.C.: Jack Martin & Co., 1987.

food stamps, the average FNS reimbursement will be \$5.50 per case month.¹ If the allocation procedure attributes 20 percent of the PA cost to food stamps, FNS will reimburse \$6.00 per case month. Thus if differences in allocation techniques cause differences in States' PA allocation rates, the end result will be variation in States' reported food stamp certification costs.

The allocation procedures used in the study States do not yield direct measures of the proportion of PA costs allocated to food stamps. A major part of the allocation process in all four States is a time study in which local office workers report at selected times what kind of case they are working on and, in some States, what task they are performing. The studies indicate a percentage of worker time allocated to food stamps, but they do not generally separate the time spent on PA and NPA cases because this is not required by the allocation guidelines or the reporting rules.

We attempted to derive an implicit PA allocation rate for each of the study States, with limited success. The results depend strongly on the relative cost of certification for PA, NPA, and non-food stamp households, and no empirical data are available on the latter group. Various assumptions were therefore used to provide upper and lower bounds (e.g., assuming all types of cases have equal costs vs. assuming PA costs are double the level of NPA and AFDC-only cases). These analyses produced upper-bound estimates that ranged from 7 to 26 percent, with lower-bound estimates ranging from negative numbers to 18 percent (see Appendix 7A).

The analysis suggests that implicit PA allocation rates vary across States, perhaps sufficiently to cause differences of 10 to 15 percent in the certification costs reported to FNS. It seems likely that differences in the States' cost allocation procedures cause much of the variation in allocation rates. In addition, differing certification procedures may lead to differences in the amount of work that must be performed separately for food stamps rather than jointly for food stamps and AFDC. Currently available data cannot distinguish between these two potential causes of variation, however.

¹Food stamp costs will be the average of \$20 per case month for NPA households and \$2 for PA households, or \$11. The normal reimbursement rate for food stamp administrative costs is 50 percent.

Whatever the allocation rate, cost allocation is another mechanism through which caseload characteristics -- specifically, the proportion of PA cases in the food stamp caseload -- may affect food stamp certification costs. In our earlier example, with the caseload split evenly between PA and NPA cases, total certification costs of \$20 for each type and a 10 percent PA allocation rate, FNS would reimburse the State for an average of \$5.50 per case month. But if PA cases accounted for only a fifth of the caseload, FNS reimbursements would be \$8.20 per case month.¹

In fact, cross-state differences in the proportion of PA cases appear to have an important effect on food stamp certification costs. The proportion of food stamp cases with AFDC² varies from 17 to 75 percent, with a national mean of 40.9 percent (Exhibit 8.3). In the five States with the fewest PA cases, these households account for less than 22 percent of the food stamp caseload, compared to over 60 percent in the five States with the most PA cases.

To understand the effect of this variation, a PA index was calculated. The index takes into account the PA proportion, assumes that costs for PA and NPA cases are equal, and assumes that 13 percent of all PA certification costs are reported to FNS. The index shows how far one would expect a State's certification costs to be from the national mean, based solely on the size of its PA caseload. Thus Alabama, with an index value of 1.20, would be expected to report food stamp certification costs 20 percent above the national mean.

The five States with the smallest PA caseloads all have index values over 1.19. Other things being equal, the FNS-reimbursed certification costs in these States would be expected to be over 70 percent higher than the costs

¹FNS would reimburse \$10 for the NPA cases, and \$1 for the PA cases. The weighted average, assuming 80 percent NPA and 20 percent PA, is \$8.20.

²Certification activity may serve other programs other than food stamps and AFDC. In particular, some cases in some States are jointly certified for General Assistance and food stamps. However, the cost allocation hierarchy assigns the primary cost of these cases to food stamps, and the incremental cost to GA. Because no empirical basis is available for dividing costs for GA cases, and because this is probably a minor adjustment, we consider here only the allocation between food stamps and AFDC.

Exhibit 8.3

PROPORTION OF FOOD STAMP CASELOAD RECEIVING AFDC

STATE	<u>Proportion With AFDC</u>	<u>PA Index</u>	STATE	<u>Proportion With AFDC</u>	<u>PA Index</u>
Alabama	0.217	1.20	Missouri	0.356	1.02
Alaska	0.470	0.87	Montana	0.253	1.15
Arizona	0.309	1.08	Nebraska	0.376	0.99
Arkansas	0.172	1.26	Nevada	0.183	1.24
California	0.754	0.51	New Hampshire	0.394	0.97
Colorado	0.344	1.04	New Jersey	0.602	0.70
Connecticut	0.624	0.68	New Mexico	0.278	1.12
Delaware	0.434	0.92	New York	0.447	0.90
Dist. of Col.	0.527	0.80	North Carolina	0.272	1.13

in the five States with the largest PA caseloads, which all have index values of .70 or less.

This PA effect appears to be a significant source of variation in States' reported certification costs. The simple correlation between the PA index and reported certification costs is quite weak, because the States with high proportions of PA cases also tend to have relatively high wages. The high PA proportion tends to reduce reported costs, while the high wages tend to increase them. When we adjust reported certification costs for the differing expected wage rates (i.e., the wage index), however, a bivariate regression indicates that the proportion of PA cases explains 12 percent of the variance in the adjusted certification cost.

Conclusion

In examining the gap between worker effort and total certification costs, we find several additional sources of cross-state cost variation. Some of this variation is influenced by features of the program environment and some is not.

Environmental factors have two very important effects on certification costs beyond those considered in previous chapters. First, regional economic conditions influence States' wage rates. Food stamp managers in the highest wage areas can expect to have 44 percent higher costs than those in the lowest wage areas, other things being equal. Second, because the Food Stamp Program pays a relatively small fraction of the cost of handling PA cases, the relative size of a State's PA caseload makes an important difference to its food stamp certification costs. The States with the smallest PA caseloads would be expected to report 70 percent higher certification costs than those with the most PA cases.

The wage effect is thus roughly comparable in magnitude to the workload effect, while the PA effect is twice as large. The wage and PA effects have even more impact on total certification cost than this comparison would suggest, however. This happens because the workload effect applies only to the labor costs for handling cases, which amount to less than half of total certification costs. The regional wage effect and the PA allocation effect, in contrast, apply to all certification costs.

Both the regional wage effect and the PA effect account for some of the variation in States' reported certification cost. Wage rates explain more of the variation, however. It seems likely that differences in States' cost allocation procedures cause the PA allocation rate to vary across States, making the statistical relationship weaker than if all States had exactly the same allocation rate.

Two other cost factors examined in this chapter -- non-labor costs and indirect costs -- appear to add variation in reported costs that is unrelated to environmental factors. Among non-labor costs, automated data processing expenses appear to vary substantially, although States' accounting practices make it difficult to be sure how much variation really exists. However, because data processing costs are reported separately from certification costs, they do not actually contribute to the variation in reported certification costs. Indirect costs, which are included in the reported totals for certification costs, seem to cause important interstate variation. Even with data for only four States, we see differences as large as 23 percent of total certification cost resulting from differing indirect cost rates. Although indirect costs were not examined in great detail in the present study, their apparent effect may make this a fruitful topic for future research.

CHAPTER NINE

ADJUSTING REPORTED COSTS FOR ENVIRONMENTAL EFFECTS

The principal objective of this study, addressed in previous chapters, was to develop an understanding of whether and how States' program environments can cause their reported certification costs to vary. The second objective was to assess the feasibility of adjusting reported certification costs to take such environmental influences into account. This question is considered below.

The feasibility of adjusting reported certification costs for environmental factors depends on the answers to three questions, which this chapter addresses in turn:

- Do States' program environments differ in ways that would be expected to influence the costs they incur for certification? If so, are the differences large enough to be important?
- Do these factors actually influence reported certification costs?
- Can a simple and reliable procedure for adjusting costs be devised?

Are there important differences?

The evidence of previous chapters clearly indicates that States' program environments differ in ways that could affect the costs they incur to carry out the food stamp certification function.

Some of the cross-state differences affect the amount of certification work they have to do. In particular, they affect task frequency, meaning the proportion of a State's caseload for which a certification task must be carried out during the month. Five factors are particularly important here:

- the percentage of food stamp cases that have earned income;
- the percentage that have only non-program unearned income, that is income from sources other than AFDC, GA, SSI, and Social Security;

- the percentage of food stamp households headed by elderly persons (age 60 or over);
- the State's unemployment rate; and
- the change in unemployment rate from the previous year.

All of these factors, with the possible exception of the unemployment rate, have the effects that most food stamp managers would intuitively expect. More tasks must be performed for caseloads with concentrations of earned income cases, households with non-program unearned income and households headed by non-elderly persons. More tasks must be performed when unemployment is rising. When the employment rate is steady, low unemployment means more certification tasks per active case (because people stay on food stamps for shorter periods).

In addition to this workload effect, environmental factors have two unrelated effects on the certification costs that FNS reimburses. First, the overall State government wage levels, which largely reflect regional economic conditions, influence the price that the State food stamp managers must pay for labor. Second, the percentage of PA cases in the food stamp caseload affects the costs reported to FNS, because FNS pays only a small portion of the cost for PA cases. Wage levels and PA percentages vary substantially from State to State.

Whether any of these variations is important is ultimately a matter of subjective judgement. Throughout this report, we have used as our yardstick of importance the difference between the 10th and the 90th percentiles. In effect, we have asked how much higher costs would be, other things equal, in the "hard luck" States than in the States with the least demanding environment. By this measure, all three of the main environmental effects seem fairly important:

- The five States with the highest values on the workload index would be expected to have costs at least 39 percent higher than the bottom five States on the index.
- The five with the highest wage levels would have costs at least 44 percent above those where general State wages are low.

- Reported costs for the five lowest PA percentage States would be 70 percent higher than in the States with the highest PA percentages.

Moreover, the three factors do not cancel each other. State wage levels and PA percentages tend to move in the same direction, while the workload index is uncorrelated with either of the other two. Thus, when the three indices are multiplied together to create a composite index, it still shows substantial variation. The five States with the highest index values would be expected to have reported certification costs at least 70 percent higher than the five States with the lowest values. Even broadening the comparison to the 15 States in each group, costs for the high group would be at least 30 percent above the level in the low group.

Effect on Reported Certification Cost

Even though environmental factors might be predicted to cause important variation in certification cost, one would not necessarily expect to find strong relationships between the environmental effect indices and the certification costs actually reported. Many other forces could shape the pattern of reported costs. Previous chapters have shown, for example, that State's policies are sometimes much stronger than the underlying characteristics of their caseload in influencing the amount of work they do. One can easily imagine that States' policies might counterbalance the influence of environmental factors -- indeed, States with inherently costly environments might choose low-cost policies for precisely that reason. We have also seen accounting differences, such as the amount of indirect cost attributed to certification or the proportion of PA cost allocated to the Food Stamp Program, which could cause States' reported certification costs to vary unpredictably.

As it turns out, however, environmental factors appear to exert considerable influence on the existing pattern of certification costs. Regression analysis shows that a composite index created by multiplying the three individual indices explains 32 percent of the variance in FY 1986 reported certification costs. All three indices contribute, although the wage index has the strongest relationship and the PA index the least strong (as judged by the loss in explanatory power when excluding each component of the

composite index). This may reflect the fact that program managers have more "decision space" in setting the policies about work to be done than in establishing wage levels.

The analysis provides good reason to believe that the existing pattern of certification costs is created in part by differences in the operating environment that State managers face, rather than by decisions they make. This may strengthen the argument for establishing a procedure to take these environmental factors into account by adjusting reported costs.

A Simple and Reliable Procedure?

The results of this study suggest that it may not be very difficult to develop a fairly simple and reliable procedure for adjusting reported certification costs.

The key ingredients needed for the adjustment procedure are a wage index, a PA index, and a workload index. The wage and PA indices can be derived very straightforwardly using readily available and quite reliable data. The average annual wage for State workers is a standard statistic produced regularly by the U.S. Bureau of the Census. The percentage of PA cases can be derived from the IQCS, which is available annually.¹

The workload index poses more challenges, but not insuperable ones. The central problem is that the relationship between environmental factors and workload will not be consistent over time. For example, the index developed in this report is based on the monthly reporting policies in effect in 1986. National regulations have changed dramatically since that period and, while we have no equivalent data for more recent periods, the current pattern is likely to be much different from that in 1986.

Some further problems are posed by limitations of the data used in this study. Some data, notably the time study data and the automated State case files, came from just four States and cannot be considered nationally representative. The IQCS data, used in some of the analyses, are national in

¹Statistics are also reported by States on the number of PA households in their caseload. Cross-state differences in the operational definition of a PA case make these data less desirable than IQCS data, where a consistent definition can be ensured.

scope but have some clear weaknesses on key variables (especially concerning the timing of the most recent certification action).

It would not be very difficult to overcome these problems, however. As it turns out, the workload effects requiring the most difficult or costly data collection and manipulation are the least important in terms of their contribution to the workload index. The analyses reveal that case characteristics cause virtually no predictable cross-state variation in how long it takes workers to complete tasks. These elements of the model could readily be omitted, eliminating the need for a time log study. The only time length variable needed for the workload index would be a measure of the mean time required to complete each task. And this measure needs to be accurate only in terms of the relative time to complete the four major tasks; an accurate estimate of the absolute magnitude of the task time is not important.

Other elements of the model that could reasonably be omitted are those concerning the frequency of interim changes and changes resulting from monthly reports. Because the average time required for these tasks is small relative to initial certification and recertification, and because the change rates were not predicted to vary much across States, neither of these factors contributes much to the workload index. If these elements of the model are omitted, along with the components that relate task length to case characteristics, there is no need to use the States' automated case file data.

The three most important elements of the workload model -- those estimating the frequency of initial certifications, recertifications, and monthly reports -- can all be estimated from IQCS data. Some modifications to the current IQCS data collection schedule would be desirable to support precise estimates. These would include adding a data item to measure the household's monthly reporting status and altering the structure of the items identifying the nature and time of the last certification action to make them more reliable. The first alteration is already planned, and the others would not add any effort to the current review procedure. Thus it seems appropriate to consider these changes feasible.

Given an appropriate workload index, along with the wage and PA indices described earlier, adjustments to reported certification costs could readily be calculated. The simplest procedure is to multiply the three indices to create a composite index, standardize the composite index around

its mean value, and then divide each State's reported certification cost by its value on the composite index. This procedure is used to create the adjusted costs shown in Exhibit 9.1.

The adjusted costs resulting from this procedure must be interpreted with some caution. They are not "true" costs; the costs States actually incur are presumably those reflected in the reported cost. Rather the adjusted cost is an estimate of what the State's cost would be if its caseload characteristics and economic conditions were the same as the national average. That is, the adjustment removes the influence of environmental factors (or at least that influence which seems to be consistent across States). The difference among States' adjusted costs therefore stems from policy decisions about what tasks to perform and how to perform them, from varying management practices, from accounting differences, and from any environmental factors that influence States in inconsistent or yet-unmeasured ways.

Because the adjustment aims to remove one source of interstate differences, it is not surprising that the adjusted costs show less variation than the reported costs. Alaska provides the most dramatic example. Before adjustment, Alaska's \$24 per case month far exceeds that of any other State. Alaska's adjusted cost is \$10 lower and is the second highest rather than the highest among the States. Overall, the standard deviation of the adjusted cost figures is about 28 percent smaller than the standard deviation of the reported costs. Thus, although the figures still vary substantially, adjusting for environmental factors does bring State's costs closer together.

Conclusion

The results of this study indicate that it would be feasible to adjust States' reported certification costs to take into account the effect of features of their program environments. This could be accomplished using readily available and annually updated data, assuming some minor modifications to the IQCS data collection instrument. Such a procedure would yield adjusted cost figures that would not be strongly determined by factors that the State food stamp manager cannot influence.

To say that such an adjustment is feasible does not necessarily make it desirable. A "bottom line" philosophy might hold that the influence of

Exhibit 9.1

ACTUAL AND ADJUSTED CERTIFICATION COSTS

<u>State</u>	<u>Actual Certification Costs Per Case Month</u>	<u>Workload Index Based on National Average Policy</u>	<u>State Workers' Wage Index</u>	<u>PA Index</u>	<u>Cost Index</u>	<u>Adjusted Certification Costs Per Case Month</u>
Alabama	\$ 5.01	0.93	1.00	1.20	1.12	\$ 4.49
Alaska	23.78	1.21	1.60	0.87	1.70	13.98
Arizona	18.56	1.12	1.09	1.08	1.32	14.09
Arkansas	5.49	0.80	0.88	1.26	0.89	6.15
California	8.80	1.09	1.37	0.51	0.76	11.65
Colorado	3.57	1.20	1.24	1.04	1.54	2.33
Connecticut	5.80	0.94	1.12	0.68	0.71	8.19
Delaware	5.96	0.95	0.93	0.92	0.81	7.33
Dist. of Columbia	5.40	0.77	1.32	0.80	0.81	6.66
Florida	8.11	0.88	0.89	1.11	0.87	9.32
Georgia	9.12	0.86	0.92	1.23	0.98	9.34
Hawaii	9.21	1.10	0.95	1.01	1.05	8.75
Idaho	8.18	1.20	0.95	1.15	1.30	6.28
Illinois	3.75	0.80	1.08	0.88	0.77	4.90
Indiana	3.40	1.00	1.02	1.04	1.06	3.19
Iowa	7.47	1.05	1.04	0.92	1.00	7.48
Kansas	4.28	1.10	0.88	0.93	0.91	4.72
Kentucky	6.66	1.00	0.86	1.14	0.98	6.82
Louisiana	6.23	0.93	0.89	1.10	0.91	6.87
Maine	6.39	1.09	0.90	1.01	1.00	6.41
Maryland	6.24	0.94	1.02	0.85	0.81	7.69
Massachusetts	4.63	0.99	1.04	0.85	0.87	5.32
Michigan	2.42	0.80	1.15	0.82	0.76	3.21
Minnesota	7.97	1.06	1.21	0.88	1.14	7.02
Mississippi	3.74	0.87	0.76	1.15	0.77	4.89

Exhibit 9.1

ACTUAL AND ADJUSTED CERTIFICATION COSTS
(continued)

<u>State</u>	<u>Actual Certification Costs Per Case Month</u>	<u>Workload Index Based on National Average Policy</u>	<u>State Workers' Wage Index</u>	<u>PA Index</u>	<u>Cost Index</u>	<u>Adjusted Certification Costs Per Case Month</u>
Missouri	\$ 9.04	0.97	0.82	1.02	0.81	\$11.09
Montana	6.24	1.17	0.97	1.15	1.31	4.76
Nebraska	6.41	1.17	0.76	0.99	0.89	7.22
Nevada	11.27	0.88	1.05	1.24	1.15	9.77
New Hampshire	4.44	0.96	0.86	0.97	0.81	5.48
New Jersey	6.59	0.88	1.10	0.70	0.68	9.73
New Mexico	7.81	1.01	0.92	1.12	1.04	7.51
New York	9.10	0.88	1.17	0.90	0.93	9.76
North Carolina	6.51	0.97	0.99	1.13	1.08	6.01
North Dakota	7.16	0.89	0.95	1.11	0.93	7.70
Ohio	1.02	0.89	0.99	0.87	0.76	1.33
Oklahoma	8.43	1.07	0.92	1.17	1.15	7.35
Oregon	7.62	1.04	1.02	1.20	1.27	6.01
Pennsylvania	3.66	0.86	0.97	0.97	0.81	4.51
Rhode Island	3.16	0.90	1.01	0.83	0.75	4.23
South Carolina	6.19	0.88	.89	1.13	0.89	6.98
South Dakota	7.61	1.24	0.84	1.13	1.18	6.44
Tennessee	4.83	0.95	0.89	1.13	0.96	5.04
Texas	7.71	1.17	1.01	1.19	1.41	5.48
Utah	7.28	1.23	0.96	0.95	1.12	6.51
Vermont	4.17	1.01	0.90	1.00	0.91	4.59
Virginia	5.96	0.97	0.95	1.08	0.99	6.01
Washington	9.68	0.99	1.06	0.83	0.87	11.12
West Virginia	2.21	0.92	0.78	0.69	0.49	4.47
Wisconsin	2.40	1.13	1.07	0.63	0.76	3.16
Wyoming	6.20	1.30	1.03	0.98	1.31	4.75

environmental factors is irrelevant, that the managers' mission is to adapt efficiently to their varying environments. Moreover, one could debate the extent to which some of the factors considered here, such as the PA percentage or State wage levels, are truly outside the food stamp manager's control. These are questions for policy makers, and outside the scope of this study. Should the policy makers decide that an adjustment is desirable, however, the study indicates that it is feasible.