Nutrition Assistance Program Report Series
Office of Research and Analysis

Family Nutrition Programs Report No. FSP-08-SAE

Feasibility of Assessing Causes of State Variation in Food Stamp Program Administrative Costs:

Final Report

United States Department of Agriculture
Food and Nutrition Service

September 2008

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Feasibility of Assessing Causes of State Variation in Food Stamp Program Administrative Costs:

Final Report

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This study was conducted under Contract number AG3198-D-07-0088 with the Food and Nutrition Service.

This report is available on the Food and Nutrition Service website: http://www.fns.usda.gov

Suggested Citation:
U.S. Department of Agriculture, Food and Nutrition Service, Office of Research and Analysis, *Feasibility of Assessing Causes of State Variation in Food Stamp Program Administrative Costs: Final Report*, by Christopher Logan and Jacob Alex Klerman. Project Officer: Jenny Laster Genser, Alexandria, VA: September 2008.

Acknowledgments

The authors wish to thank Nancy Burstein, recently retired from Abt Associates Inc., for her thoughtful advice as internal Project Quality Advisor, and the production staff of Eileen Fahey, Katheleen Linton, and Jan Nicholson. Jenny Genser delivered essential support and helpful comments and advice as the Contracting Officer's Representative. The following Food and Nutrition Service (FNS) staff provided helpful information for the report and commented on the document: from the Office of Research and Analysis, Kristen Hyatt, Hoke Wilson, and Carol Olander; from the Food Stamp Programs staff, John Bedwell; and from the Financial Management staff, Charles Okal. We also thank Kenneth Hanson of the Economic Research Service for his advice and feedback.

This report relies substantially on expert views from numerous officials who shared their time and insights. First, we wish to thank the Food Stamp Program and Financial Management staffs of the Mid-Atlantic, Mountain-Plains, Southeast, and Southwest FNS Regional Offices. We also wish to thank the Administration for Children and Families and the Division of Cost Allocation in the U.S. Department of Health and Human Services. Finally, we wish to thank the representatives of the four States that participated in in-depth interviews: Nevada, New Mexico, North Carolina, and Pennsylvania. This report would not have been possible without the generous cooperation of these officials.

This study was sponsored by the Office of Research and Analysis, Food and Nutrition Service, U.S. Department of Agriculture as part of its ongoing research agenda. Points of view or opinions stated in this report are those of the authors and do not necessarily represent the official position of the Food and Nutrition Service.

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Executive Summary

In September 2007, the Food and Nutrition Service (FNS), U.S. Department of Agriculture (USDA) awarded to Abt Associates Inc. the *Feasibility of Assessing Causes of State Variation in Food Stamp Program (FSP) Administrative Costs Study* (hereafter the *Feasibility Study*).[1] The purpose of the study is to develop a menu of approaches for better understanding how and why State administrative expenses (SAE) vary between States.

The Feasibility Study addresses two sets of research questions: issues of the data sources to be used, and alternatives for analyzing and explaining variations in administrative expenses. In particular,

- Is it possible to ***measure*** food stamp administrative expenses consistently enough across States to credibly assess the degree of variation? If it is possible, what are the alternative ways to measure such expenses? Are new data required? If so, what level of effort would be required and what challenges would need to be addressed to obtain such data?
- Can the causes of variation in State food stamp administrative costs be ***explained*** in the absence of experimental design? Why or why not? If so, what are the alternative approaches, and what are the advantages and disadvantages of each? Which approach is recommended and why?

These questions are interrelated. The types of data required depend on the methods to be used, and the feasible methods depend on the feasible data sources.

In this report, we find that State administrative expenses for the FSP can be compared across States, with some limitations, and we present several feasible approaches for explaining the causes of variation in SAE, albeit with varying degrees of confidence. We first present a conceptual framework for the possible causes of variation in SAE and a series of general, nonexperimental analytic approaches based on this framework. The conceptual framework describes how SAE may be affected by State characteristics including population demographics, economic conditions, political preferences, policies, and management strategies. We describe ideal data and then explain why they would not be feasible to obtain. We then present and compare five feasible options for making these comparisons and analyzing the sources of variation in SAE. These options would use varying combinations of existing national databases, State accounting records, and new data collection. The options focus on certification costs in general, and specifically on the costs of eligibility workers, i.e., personnel who make eligibility determinations.

There are clear trade-offs among the options. Use of existing national databases would require strong assumptions and limit the number of explanatory variables. Collecting accounting records would allow more realistic assumptions and use of disaggregated data to increase the ability to explain variation, at a relatively low cost and burden on the States. New data collection would support more disaggregated, robust, and definitive analysis, but would entail moderate to high costs and burden, depending on the approach and the scope. Thus, FNS has a range of choices for understanding

[1] On October 1, 2008, the Food Stamp Program will change its name to the Supplemental Nutrition Assistance Program (SNAP).

variation in SAE among the States. We facilitate these choices by presenting a recommended sequence of studies using the most feasible and promising options.

In this executive summary, we begin with the purpose and background of the study. We then summarize the key concepts for analyzing variation in SAE. Next, we discuss the issues of the comparability and availability of cost data. We then present the five options and summarize their relative strengths and weaknesses. We conclude with an overview of the recommended sequence of studies.

Background

The FSP provides assistance to low-income households so that they can purchase an adequate supply of nutritious food. The FSP is the largest of the 15 domestic food and nutrition assistance programs administered by the US Department of Agriculture's Food and Nutrition Service (FNS). The FSP served 26.5 million people in an average month in Fiscal Year 2007, for a total Federal cost of $33.2 billion, of which $30.4 billion were for food stamp benefits (FNS, 2008a).

The FSP is jointly administered by the Federal government and the States.[2] The Federal government sets the basic program parameters and pays for all benefits. State governments choose program options from among those allowed by Federal statute and FNS regulations, and operate the program.

Expenditures for State and local administration of the FSP are considerable and vary substantially across States and over time. In FY2007, SAE totaled $5.5 billion, representing 17 percent of total FSP expenditures (FNS, 2008a). This is equivalent to $469 per participating household.[3] The range in FY2007 was from $169 in South Carolina to $1,169 in California, more than a nearly seven-fold difference. Between 1989 and 2005, the average administrative expenditure for the nation (in 2005 dollars) ranged from $346 and $657 per household (Logan, Kling and Rhodes, 2008).

Administrative costs represent a greater share of total program costs in the FSP than in several other human service programs, including the Temporary Assistance for Needy Families (TANF) and Unemployment Insurance (UI) programs, but less than in others, such as adoption assistance and foster care, according to a recent General Accountability Office study (GAO, 2006). The FSP also spends a greater percentage of funds on administrative costs than the Earned Income Tax Credit program (Isaacs, 2008). While there are important differences between these programs and in their definitions of administrative costs, such comparisons highlight the need to understand what drives the differences between low-cost and high-cost States, and whether there are lessons for improving the efficiency of the FSP.

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[2] For the purposes of this report, references to "States" include the 50 States and the District of Columbia but exclude Guam and the Virgin Islands, which are not expected to be part of a cost study because of their unique circumstances. Puerto Rico is also excluded because it receives a block grant in lieu of operating the FSP. "FY" refers to the Federal fiscal year, October 1 through September 30.

[3] This estimate is computed as the ratio of total SAE to average monthly food stamp households. The actual number of unique households participating in the FSP during a year is more than the average of the monthly counts, but the annual unique count is not regularly reported. The annual cost per FSP household as defined above is equal to 12 times the average monthly cost per FSP household, and thus the annual and monthly cost per household are perfectly correlated.

Data Sources

For this study, we reviewed a range of published reports on administrative costs in the FSP and similar programs, as documented in the references of both memoranda. We identified relevant publications through key agencies' web sites (FNS, USDA Office of Inspector General, Government Accountability Office, and Department of Health and Human Services) and through our prior research experience. We also conducted semi-structured interviews with Federal officials (including FNS Headquarters, four regional FNS offices, and the Department of Health and Human Services) and with program and finance officials of four States: Nevada, New Mexico, North Carolina, and Pennsylvania. These interviews gathered data on possible problems with comparing SAE, possible extant data for analysis of SAE at the State and local levels, and opinions on the reasons for the variation in SAE.

In the report, we make generalizations based on these data sources. **All generalizations are subject to the caution that they are based on the limited data sources for the study.** In addition, where we found conflicting evidence or heard differing views on a topic, we note this as an area of uncertainty. The discussion of issues for future research reflects the limitations of our information and the important areas of uncertainty. In particular, we identify information that should be collected to resolve uncertainties before undertaking some approaches or analyses.

Conceptual Framework

We divide the factors that may contribute to variation in SAE between **uncontrollables** and **controllables**. Uncontrollables are economic, demographic, and political conditions which are out of the control of the States. Controllables are policy and management choices made by State or local officials. A key goal of any study of FSP SAE should be to establish the relative importance of uncontrollables and controllables. If variation in SAE is mainly due to uncontrollables, there is less scope for cost savings than if variation in SAE is mainly due to controllables that the Federal government could influence through policies or financial incentives. Efforts to reduce SAE would need to take into account the possible effects on FSP payment accuracy, timeliness of application processing, and access.

In addition, Federal and State officials may be interested in the effects of specific policy and management choices. Does adopting semi-annual reporting cut SAE? By how much? Are county-administered systems more expensive? By how much? Do investments in computer technology lead to long term savings in total SAE?

This report considers strategies for explaining overall interstate variation in FSP SAE (and the extent to which it is due to uncontrollables and controllables), and for estimating the cost implications of specific policy and management choices. The approach to these questions must be non-experimental, because States have substantial autonomy in administering the FSP.

The key challenges for non-experimental studies of SAE for the FSP are (1) known and unknown uncontrollables that are directly related to SAE and to policy or management choices that may affect SAE, and (2) separating the effects of large numbers of specific uncontrollables and controllables that may contribute to variation in SAE. The key strategies for dealing with these challenges are (1)

disaggregating SAE into components with smaller and better-specified sets of potential explanatory factors, and (2) analyzing changes in explanatory variables and SAE within States over time (i.e., differences in differences) to control for unknown characteristics of States that may affect both SAE and the controllables of interest.

We define three conceptual levels for decomposing SAE for the FSP: the **accounting**, **case**, and **task** levels. At the **accounting level**, the total SAE for a period of time in a State is the sum of expenditures for all inputs purchased (labor, computer time, office space, etc.). For each input, the total expenditure is the product of the quantity, the average price, and the average share allocated to the FSP. Inputs can be shared across programs with respect to cases (eligibility worker time for an application for food stamps and other benefits), with respect to workers (general training for multiple programs), and with respect to higher levels in the agency. Cost allocation rules and the mix of programs sharing cases with the FSP determine the FSP share of expenditures. This framework leads to a decomposition of variation in input quantities, prices, and the FSP share, and also to analysis of the relative importance of different inputs. This is important because input costs are nearly uncontrollable. States located in regions with high wages and rents are likely to have higher SAE.

At the **case level**, the total SAE is the sum of expenditures for all FSP cases. Cases differ in composition (presence of children, elderly, other adults, or noncitizens), sources of income, participation in other programs, and other characteristics. Different types of cases will have different average costs, because different quantities of inputs are used. The average cost for each type of case is determined by the average quantity of each input, the average prices of those inputs, and the share of those input costs allocated to the FSP. More inputs for a given type of case may contribute to a better level of performance, where dimensions of performance include payment accuracy, timeliness, and accessibility for eligible households. Taking the averages for case types and weighting by their share of the FSP caseload gives the overall average cost per FSP case. In this framework, variation in SAE can **in principle** be decomposed into variation in input prices, input quantities per case by type of case, FSP share of costs by case type, and case mix (percentage by type). This is important because case mix is largely uncontrollable, although State policies may have minor effects. Some States have more cases with earnings or more noncitizens. In as much as these types of cases require more case management, SAE will be higher in States with more of these cases.

At the **task level**, the total SAE is the sum of expenditures on all administrative tasks for all FSP cases. Thus, SAE varies because of differences in what States do (task frequency) and what inputs they use to do these tasks. Both task frequency and the quantity of inputs may affect the level of performance. The average cost of a task is determined by the input quantities, input prices, and the FSP share of the cost. The input quantity includes what is actually used to perform the specific task and a share of the quantity used for more general FSP administration that is not task-specific (e.g., the salary of the State FSP director). Input quantities, FSP shares, and task frequency vary by type of case; these factors jointly determine the average cost per case for each type of case. The case mix and the average cost per case by type determine the overall average cost per case.

Thus, at the task level, variation in SAE can **in principle** be decomposed into variation in input prices, input quantities per task by task and type of case, FSP share of costs by task and case type, frequency of tasks by case type, and case mix (percentage by type). **The ideal data for this decomposition at the task level do not exist and are not likely to exist, but we use this framework to develop more feasible approaches.** This final decomposition is important because, presumably part of the reason why some States have higher SAE is that they do different tasks.

Ideally, we would like to know if some State's SAE was higher because it was doing more outreach, giving more help to clients in completing applications, processing applications faster, processing cases with fewer errors, or asking applicants to wait less time before seeing an eligibility worker. If we understood the extent to which SAE in different States varies because they are doing different tasks, the Federal government could consider State rules or financial incentives to alter State decisions about which tasks to do and how often to do them.

In this report, we present a conceptual model of the factors that determine the components of variation in the task level framework (caseload size and mix, input prices, FSP share of costs, tasks performed, and inputs per task). The principal hypotheses are summarized below.

- Market prices of inputs, caseload size, and case mix are "uncontrollables" primarily determined by the State's population and economy. State policies have a minor effect on the FSP caseload and case mix.
- The FSP share of costs is affected by both State policies and the socioeconomic characteristics of the State population. Policies determine the share of costs for a task involving a given combination of programs, while the population determines the proportion of FSP cases participating in other programs.
- Tasks performed for each case type are determined by State policies, the State budget for FSP SAE, and management strategies.
- Inputs per task for each case type are determined by the State budget and management strategies.

The accounting, case, and task levels interact. A task-saving policy change will not directly affect FSP SAE unless the staffing level (total input of eligibility workers) is cut at the same time. Thus, at least in the short run, what we observe is not the full potential savings of the change, but the savings realized by the agency when it implements the change. Ideally, the State would adjust staffing levels in response to opportunities for savings and demand for increased staffing. In reality, staffing adjustments are difficult to make in the short run—both when there are potential savings and when the caseload rises more than was anticipated when the State FSP budget was set. With these constraints, it seems likely that there are differences in the frequency of tasks performed and the quality of performance, in terms of accuracy, timeliness, and making the FSP accessible to eligible households.

While the ideal task-level decomposition is not possible, the options developed in this report specify feasible approaches to decompose the overall variation in SAE into the contributions of case mix, input prices, tasks performed, input per task, and FSP share of costs. They also provide strategies for understanding the role of specific factors, both uncontrollables and controllables. One general strategy is the "reduced form" approach, regressing total SAE on the factors of interest. The other strategy is a "structural" approach that simplifies but approximate the conceptual model in a system of equations, using proxies that are obtainable for the detailed information that is not.

Detailed Cost Data Desirable to Explain Variation

It is highly desirable to disaggregate SAE as much as practical along the dimensions of the ideal task level framework. While a conventional regression analysis of aggregate SAE at the State level could certainly be undertaken, and indeed is one of the recommended approaches, it would have two important limitations. First, with a large number of possible explanatory factors and only 51 States (counting the District of Columbia), we are likely to run out of degrees of freedom to estimate effects with confidence. Second, a linear specification with variables having additive effects appears to be a poor approximation to the true model.

To disaggregate SAE along the lines of the conceptual framework, we would need some or all of the following kinds of cost data, in addition to aggregate SAE per case by State and year:

- breakdown of SAE among inputs, particularly between eligibility workers and other inputs
- prices and quantities of inputs, particularly eligibility worker time and pay
- distribution of eligibility worker time by type of case
- frequency of eligibility worker tasks and time per task.

We focus on eligibility worker labor as the input of greatest interest because these workers play the largest role in the usual certification process.

The specific data requirements and the feasibility of meeting those requirements depend on the approach to disaggregating SAE. We have identified five feasible options for explaining the variation in SAE using extant or new cost data at varying levels of aggregation. The five options and their data requirements are summarized in Exhibit ES.1. One option (Option 1) would model aggregate State-level SAE per case (specifically, certification costs) as reported by States to FNS. These cost data are certainly available.

The other four options would implement different parts of the ideal disaggregation of SAE. Option 2 would break down total certification costs into three key variables: eligibility worker hours, eligibility worker pay per hour, and the "generalized overhead rate", defined as the ratio of all other costs to eligibility worker costs. This option would require data from State financial records.

Options 3 and 4 would further break down the eligibility worker hours by case type; Option 3 would do this for all States, while Option 4 would do this in a sample of States and use the data to construct a difficulty index of the relative effort for each type of case. These options would thus require data on the distribution of eligibility worker time by type of case.

For Option 3, methods are available that could collect the desired data on eligibility worker hours by case type in all States. Such data do not appear to exist in most States, except for the percentage distribution of eligibility worker time by program combination (FS-only, FS and Medicaid, etc.). This information exists in States that conduct that administer programs jointly and collect this information for cost allocation purposes through random-moment time studies (RMTS) or activity reports. These existing data are feasible to collect and would be informative, but the combination of programs is only one of the case type dimensions of interest. We would also like information on relative effort required for other case characteristics that are likely to shift SAE per case. Those case

Exhibit ES.1

Research Options, Data Requirements, and Potential Data Sources

Option	Data Requirements	Data Collection Options
1. Modeling available State-level data	"Core data": annual SAE, caseload composition, input prices, economic conditions, political conditions, policy choices	Extant FNS or public databases
(Options 2 through 5 require the core data for Option 1. Additional data requirements and collection options are identified below.)		
2. Modeling eligibility worker time per case, generalized overhead, and pay rate	State-level total eligibility worker cost and number of full-time equivalents (FTEs) Breakdown of non-eligibility worker costs (if analysis of the composition of overhead is desired)	Survey of States (or) Data abstraction from State records
3. Modeling eligibility worker time by case type, generalized overhead, and pay rate	Option 2 data plus: Eligibility worker time percentage by case type	Additional data from all States: RMTS[a] or personnel activity reports[b] with detailed case type or case number (or) Time study (or) Worker survey
4. Modeling difficulty and intensity factors by case type, generalized overhead, and pay rate	Option 2 data plus: Standard difficulty factor by case type (ratio of time per case to benchmark or overall average)	Additional data from subset of States: RMTS or personnel activity reports with detailed case type or case number (or) Time study (or) Worker survey
5. Modeling time per task, task frequency by case type, generalized overhead, and pay rate	Option 2 data plus: Time per task by task, frequency of task by case type National Averages approach estimates time per task by task by modeling time per case as a function of task frequency; no measurement of time per task required	Additional data from all or subset of States: For time per task: RMTS or personnel activity reports with task code or case number (or) Time study (or) Worker survey For frequency of key tasks by case type: Extant FNS statistics (FNS-366B)[c], (or) Quality Control sample microdata, (or) Case records

[a] RMTS=Random Moment Time Study.

[b] As discussed in Appendix B, some States require eligibility workers to complete personnel activity reports as the basis for allocating their time between the FSP and other programs. A personnel activity report is a log of every case that the worker serves, compiled continuously.

[c] See discussion of Option 5 for explanation of the FNS-366B report.

characteristics are likely to include whether the case has earnings, the number of individuals in the case, and whether the case includes elderly persons. New data collection would be possible, but would be very expensive, and would only provide a cross-section as of the time in which the new data were collected (rather than a time series of data for each State spanning several years).

Option 4 simplifies the data requirements of Option 3 by assuming that the relative difficulty of each case type does not vary systematically by State, so data on eligibility worker time by case type from a small number of States can be extrapolated to all States and all time periods using available aggregate data on case mix (e.g., QC data or FNS Form 366B data). While this assumption may not be strictly correct, it provides a basis for feasible and potentially insightful analysis. To implement Option 4, there are three potential designs, listed below in order of increasing richness of data, cost, and burden:

- **Collect existing data from States that identify case type in their RMTS or activity reports.** This approach would only be viable if a sufficiently representative group of States had comparable data.
- **Merge case records with RMTS or activity report data to estimate the proportion of time by case type.** The time use data would come from the State's existing worker time study for cost allocation purposes. Most States use random-moment time studies (RMTS), in which randomly selected workers record activity at randomly selected times. Some States require eligibility workers to complete personnel activity reports, recording all of their activities continuously.
- **Collect new time-use data from eligibility workers in a sample of offices within the selected States and match these data to case records.** Such a study could provide data on time by task as well as by case type; thus it would be a combination of Options 4 and 5. This approach was used in the FSP certification cost study. A full replication of the prior study would be very expensive and burdensome, but would yield very rich data. A smaller-scale version designed only to estimate overall time per case would be more feasible.

Option 5 would break down the eligibility worker hours at the task level as a function of time per task and task frequency by case type. There are three versions of Option 5 that appear to be feasible. All three versions could use existing national databases providing the aggregate frequency of major tasks by case type; one version could use more detailed case records from a subset of States. Each version would take a different approach to estimating the time per task.

- The **National Averages version** would use a regression model to estimate the national average time per task across States. This option could be implemented on a national scale using summary data from FNS-366B reports or case-level data from Quality Control (QC) reviews. These sources do not identify case management activities occurring between certifications, but one could define each active case that is not certified or recertified during a month as an instance of generic case management.
- The **Subset of States version** would collect time per task data in a small number of States through an existing RMTS matched with case records, a new time study, a worker survey, or interviews with State experts in a subset of States. These data would be combined with task frequency data from State case records or national sources. The details of the approach would depend on the resources available and the expectations for the precision and accuracy

of the estimates. Analysis based on State case records would have to be mapped into task categories in national sources to generalize to all States.

- The **All States version** would collect time per task in all States. While any of the methods for the Subset of States version might in principle be used in all States, only the expert interview method appears practical, considering the costs and burden. Given the uncertainty about the validity of such data, it would be preferable to combine this version with one of the other versions of Option 5.

Under all of these options, additional State-level data would be needed to break down the overhead rate into components for separate analysis (labor vs. non-labor, local vs. State, etc.).

Explanatory Variables

The review of sources identified a wealth of data that can be used to analyze variation in SAE. In particular, there are strong national databases with State-level time series data on the following types of explanatory variables:

- case counts and characteristics
- frequency of certification and recertification, by case type
- pay for public welfare workers and comparable private sector occupations
- economic conditions
- State revenues and expenditures
- political and social conditions
- FSP and welfare rules.

There are, however, some important limitations and challenges.

- For data on case mix other than the public assistance/non-public assistance breakdown in FNS data, analysts will likely need to process QC microdata or State client data. Analysis strategies for QC data need to define case types so that none is too small a percentage of the caseload, taking into account the QC sample size in each State and the effects of weighting on the precision of estimates.
- State client data must be processed to determine the frequency of activities other than certification, recertification, and denied applications.
- While wage rates are available at the State level, benchmarks for benefits are available only at the regional level, and union/non-union wage differentials are available only nationally and for specific metropolitan areas.
- There are no State-level benchmarks or indices for the costs of resources other than labor used in FSP State and local operations. It appears that the most practical strategy for normalizing nonlabor costs is to use a general cost of living index as a proxy.
- FSP procedures and operating characteristics are not documented on an ongoing basis, although some one-time surveys are available.

Feasibility of Explaining Variation in SAE

Any of the specified options would provide important insights in variation in SAE, well beyond the existing literature. The options would, to varying degrees, permit analysis of how SAE varies with differences in case mix, wages and other input prices, task frequency, time per task, and FSP share of costs. The options that disaggregate SAE would allow analysis of the factors that drive each of these components of the overall variation in SAE. To the extent that analysis can identify the uncontrollable factors affecting SAE, the options would permit estimates of normalized SAE (taking out the effects of uncontrollables) that could then be modeled in relation to State performance, including payment accuracy, timeliness, and program accessibility.

There are important trade-offs among the options on five basic dimensions:

- the degree of uncertainty about the technical feasibility of the option
- the number of years that are technically and practically feasible to include in the analysis, and thus the feasibility of using difference-in-differences (DD) methods
- the limitations of the analysis due to the underlying assumptions
- the ability to estimate the effects of specific variables on SAE (controllables and uncontrollables)
- the relative cost and burden of the potential research, based on the scope of the data collection and the number and types of respondents.

In general, the options that are more practical (in terms of technical feasibility, cost, and burden on States) are the ones that use more aggregated data, and therefore have less potential to explain variation. The options that will disaggregate costs into more factors entail more cost and burden. Therefore, these options by themselves would be more likely to be limited to cross-sectional analysis, although they could be combined with the more aggregated time-series data for DD analysis. In addition, there are significant feasibility questions about some of these options.

Exhibit ES.2 compares the research options on these dimensions, summarizing the feasibility assessment for each option discussed in this report. We exclude versions of Option 3, 4, and 5 that we have discussed in the report but view as infeasible due to lack of requisite data, high likelihood of errors in data, or high cost or burden. Readers may differ in their views of the feasible level of cost and burden for studies of SAE. Preliminary research suggested in the next section could change the assessment of the options that are not identified among the feasible set.

Option 1, the modeling of existing aggregate State-level SAE data, is by far the most feasible option. There is no doubt about the technical feasibility, and it has the lowest cost and burden of the options. It is also the only option that by itself would support a robust DD time-series analysis with State fixed effects. It could readily be combined with any of the other options as an initial exploratory stage or as a complement. On the other hand, Option 1 uses the most aggregated cost data. This is a very important limiting factor on the ability to model the effects of FSP policies and management choices. Other limitations are the assumed functional form and the uncertain comparability between pre-1999

Exhibit ES.2

Comparison of Feasibility, Advantages, and Limitations of Research Options

Criteria	Option 1: Modeling available State-level SAE data (SAE) as a function of State characteristics	Option 2: Modeling eligibility worker (EW) time per case, overhead, and pay rate	Option 3: Modeling EW time by case type, overhead, and pay rate	Option 4: Modeling difficulty and intensity factors by case type, overhead, and pay rate	Option 5— National Averages: Modeling average time per task, task frequency by case type, overhead, and pay rate	Option 5— Subset of States: Modeling average time per task, task frequency by case type, overhead, and pay rate
Data collection	None. (Extant data include SAE, case characteristics, input prices, economic and political conditions, policy choices).	Collect State-level total EW cost and number of full-time equivalents via survey.	Collect Option 2 data plus EW time distribution by combination of programs.	Collect Option 2 data plus measurement of EW time by case type in selected States.	Collect Option 2 data and use extant FNS task frequency data.	Collect Option 2 data, measure task time in selected States, and use extant FNS task frequency data or case records.
Technical feasibility	All extant data from national sources, no issues.	Uses extant State data; Need consistent definition of EW or "local" staff.	Uses extant State data; Issues are: need consistent definition of EW or "local" staff; reliability of data for States using personnel activity reports; inclusion of FSP-only workers.	Possibly uses extant State data, may require new data. Issues are: need consistent definition of EW or "local" staff; matching case numbers for RMTS observations to case records; sample sizes (States, workers, cases).	Uses extant State data; Issues are: need consistent definition of EW or "local" staff; extent of error due to difference between State and federal FY counts (366B); power to estimate time per task via regression .	Likely requires new data; Issues are: need consistent definition of EW or "local" staff; tasks identifiable in case records; ability to map tasks in case records to national databases.
Number of years technically feasible	Unlimited	3-5	3-5	3-5 (only if EW time study repeated)	3-5	3-5 (only if EW time study repeated)
Limitations due to assumptions	Poor approximation of functional form of conceptual model; pre-1999 data may not be comparable.	Limited data on costs other than EWs or “local” staff.	Limited data on costs other than EWs or “local” staff. Collapses differences in task frequency and time per task.	Limited data on costs other than EWs or “local” staff. Collapses differences in task frequency and time per task. Constant difficulty across States, over time. Sensitive to State-specific effects.	Limited data on costs other than EWs or “local” staff. No difference in time per task by case type. Uses modeling, not measurement for time per task.	Limited data on costs other than EWs or “local” staff. No difference in time per task by case type. Sensitive to State-specific effects.

Exhibit ES.2

Comparison of Feasibility, Advantages, and Limitations of Research Options (continued)

Criteria	Option 1: Modeling available State-level SAE data (SAE) as a function of State characteristics	Option 2: Modeling eligibility worker (EW) time per case, overhead, and pay rate	Option 3: Modeling EW time by case type, overhead, and pay rate	Option 4: Modeling difficulty and intensity factors by case type, overhead, and pay rate	Option 5—National Averages: Modeling average time per task, task frequency by case type, overhead, and pay rate	Option 5—Subset of States: Modeling average time per task, task frequency by case type, overhead, and pay rate
Ability to estimate effects of uncontrollables	Most limited for any one year; strongest for longitudinal analysis.	Better than Option 1.	Better than Options 1 and 2 with respect to program mix.	Better than Options 1,2,3 with respect to case mix.	Better than Options 1,2 with respect to case mix; better than Option 4 with respect to factors driving task frequency.	Better than Options 1,2 with respect to case mix; better than Option 4 with respect to factors driving task frequency.
Ability to estimate effects of controllables	Most limited for any one year; strongest for longitudinal analysis.	Better than Option 1.	Better than Options 1 and 2 for controllables related to program mix.	Better than Options 1,2,3 for controllables related to case mix.	Better than Options 1,2 with respect to case mix; better than Options 3,4 with respect to factors driving task frequency.	Better than Options 1,2 with respect to case mix; better than Options 3,4 with respect to factors driving task frequency.
Burden on State and local staff	None	Low/moderate burden on State accounting staff. No burden on EWs.	Low/moderate burden on State accounting staff. No burden on EWs.	Moderate burden on State accounting staff. Burden on State IT staff for extracting case records. Burden on EWs if new time measurement is needed.	Low/moderate burden on State accounting staff. No burden on EWs.	Moderate burden on State accounting staff. Burden on State IT staff for extracting case records. Burden on EWs if new time measurement is needed.
Relative cost ranking (lowest=1)	1	2	3	5	4	6

data and later years. For explanatory variables that change substantially within States over time, the ability to conduct longitudinal analysis using DD or other appropriate methods somewhat mitigates the limitation of aggregate data.

Option 2, Option 3, and Option 5-National Averages would use existing data from State accounting reports or spreadsheets and are therefore also likely to be feasible. (The feasible version of Option 3 would collect existing data on eligibility worker time distribution by program combination.) Because of the use of existing aggregate accounting data in State records, these options rank second, third, and fourth (respectively) in expected cost. These options would have low to moderate burden on State accounting personnel and no burden on eligibility workers. These options would substantially improve the ability to identify major factors ***associated with*** variation in SAE. All three options would allow separate analysis of variation in eligibility worker time, pay, and overhead. Option 3 would add further insight into the effects of cost-sharing among programs, while Option 5-National Averages would add insights into the factors driving task frequency and their impacts on SAE. Key limitations for these three options, as well as the more costly options, would be: the challenge of consistently measuring eligibility worker time and costs, limited data on overhead, and the simplification of all costs other than eligibility worker pay as overhead.

A limited version of ***Option 5-All States*** based on interviews with State experts is not listed in the exhibit but could be implemented at a low cost and no burden to eligibility workers. This option would collect expert estimates of eligibility worker time per task from every State. This approach would provide estimates of national average time per task based on data from all States, instead of relying on regression analysis (as in Option 5-All States) or on a limited number of States (as in Option 5-Subset of States. While the individual State estimates could be used for exploratory analysis, there is real uncertainty about the level of accuracy for interview-based estimates and the validity of the methodology for State-level comparisons. Therefore, we view this option as a potential adjunct to other options, rather than a primary option on its own.

Option 4 and Option 5-Subset of States would provide the richest data (among the options that we consider feasible) and, on balance, the best opportunities to identify the factors ***associated with*** variation in SAE. Both options would generalize from data collected in a sample of States. As indicated in Exhibit 9.3, Option 4 would collect eligibility worker time by case type in selected States to estimate standard difficulty factors for case types. Option 5-Subset of States would collect eligibility worker time per task in selected States to estimate the average time per task. These options are clearly strongest for estimating the variation associated with factors that do not change substantially within States over the time period that is feasible to study. The disaggregation of SAE would allow more focused analysis of the variables that are relevant to each of the six components of variation (FSP share, case mix, overhead, eligibility worker pay, task frequency, and time per task; Option 4 collapses the last two components). This analysis does depend on the simplifying assumptions of these options, but the alternative would be much more costly and burdensome studies. The practical downside of these options is that they require more data and thus would be more costly than the other four options.[4]

[4] While the options are numbered 1 through 5, there are two different versions of Option 5 among those listed in Exhibit 9.3.

While Option 4 and Option 5-Subset of States would complement each other, there may be a need to choose between them. This choice is not clear, because of several unknown feasibility questions: the availability of existing data that would facilitate these options, the feasibility of matching RMTS data with case records, the tasks identifiable in case records, and the sample size requirements for specific data collection approaches. Analysis conducted via Option 1 might point to Option 4 or Option 5 as the more likely to explain variation in SAE.

There are some important general limitations for potential studies of the variation in SAE. First, both the structure of State accounting systems and the available price index data pose challenges for analyzing the impacts of input prices other than pay and benefits. Second, special-purpose surveys may be needed to identify which States use management practices that are hypothesized to affect SAE: these include variations on the conventional staffing and client flow of local food stamp offices and newer, more radical changes. FNS has undertaken such a survey, but a time series of such data is desirable for future analyses.

The feasibility of all of these options depends on the cooperation of State agencies and, at least in some States, county agencies as well. Options 2 through 5 would require the cooperation of accounting personnel. New data collection from eligibility workers would require consent from agency managers and may require consent from individual workers or their collective representatives.

We have sought to identify options that make the most use of existing data, and options that can be integrated into agency operations, in order to minimize the burden on operational workers and the interference with operations. We have also taken into account the potential burden on accounting personnel. The design of future studies would need to address the perceived risks and benefits of the studies to State and local personnel. Depending on the extent of the desired data collection, it may be appropriate to consider incentives or mandates for participation, or ways to integrate data collection with FNS oversight so as to leverage FNS' influence. Another potential strategy for gaining cooperation is to engage key opinion leaders among the State food stamp directors in planning the study and interpreting the results. This would tap their knowledge while making it clear that the study is intended to help them manage the FSP

Finally, **we note the critical importance of taking State performance into account** when making comparisons of SAE and interpreting differences in SAE among the States. A State with a low level of SAE per case, even after adjusting for uncontrollables such as case mix and labor markets, is only more efficient than States with higher levels of SAE per case if its performance is as good or better. We have suggested ways to use each of the options to estimate a normalized cost per case as a basis for comparisons of performance on the key dimensions of accuracy, timeliness, and access.

A Suggested Program of Research on Variation in SAE

Based on the preceding data assessment, we suggest a sequence of concepts for feasible and informative studies of variation in SAE. The sequence begins with the least expensive approaches and with the strategies that would resolve uncertainties about the feasibility and potential value of more expensive approaches. Studies 3, 4, and 5 are suggested as intermediate steps between the most basic studies (Studies 1 and 2) and the most ambitious studies (Studies 6, 7, and 8). These last three studies are presented as alternatives for implementing the approaches that would provide the richest

data—Option 4 or Option 5-Subset of States. Exhibit ES.3 summarizes the studies, their prerequisites, their key data, their expected contributions to understanding of interstate variation in SAE, and their relative expected cost. In this exhibit, "low" cost means expected cost under $500,000; "moderate" cost means expected cost between $500,000 and $1,000,000; and "high" cost means expected cost more than $1,000,000. The expectations are based on confidential estimates provided separately to FNS.

Study 1: Exploratory Analysis of Existing Aggregate Cost Data

This study would analyze existing aggregate cost data, as in Option 1 using reduced form difference-of-difference regressions. We view this as a relatively modest, low-cost first step that could provide immediate insights and identify directions for future research. The primary focus would be on time-series regression analysis of certification costs (potentially using both narrow and broad definitions), but the scope could be expanded to include the costs of other functions. Extant FNS data and other public databases would be used to construct explanatory variables. The study would attempt to model the relationship of certification costs to average eligibility worker pay, market pay for related occupations, case characteristics, frequency of certification and recertification, and State fiscal conditions and budget constraints. The study would also identify persistent cost differences among States not explained by these factors. It would seek to relate FSP performance to SAE after taking into account the known uncontrollables.

Study 2: Survey-Based Decomposition of Certification Costs

In this study, States would be surveyed to collect several types of data needed to conduct analysis based on Option 2 and Option 5-National Averages. The survey would also gather data to clarify the feasibility of more detailed analysis approaches. As discussed above, Option 2 would divide variation in certification costs into three parts: eligibility worker time per case, eligibility worker pay, and "overhead", i.e., the ratio of other certification costs to eligibility worker costs. Option 5-National Averages would disaggregate eligibility worker time per case as a function of case mix, task frequency, and intensity of effort relative to the task workload.

The study would combine the State survey data with existing data on SAE caseload characteristics, policy options, factor prices, and political, economic, and social conditions. The analysis would model the three elements of Option 2: eligibility worker time per case, eligibility worker pay, and overhead. Additional analysis would implement Option 5-National Averages with the eligibility worker time data and data on task frequency by case type from FNS sources. If data on eligibility worker time by program combination were collected, the analysis specified under Option 3 would be implemented.

The cost of this study would be low if it were added to Study 1, and the exploratory analysis of aggregate data would help guide the analysis of the more disaggregated data and the data sought in the survey. A State survey could also be combined with any of the other concepts described below.

Exhibit ES.3

Suggested Program of Studies of Interstate Variation in FSP State Administrative Expenses

Study	Other Studies That Are Prerequisites[a]	Key Data Collected from States	Expected Contribution	Relative Cost
1. Exploratory Analysis of Existing Aggregate Cost Data	(none)	(none)	Identify major factors likely to affect SAE, identify directions for research	Low
2: Survey-Based Decomposition of Certification Costs	Study 1 (preferable)	Total FSP eligibility worker time and cost, average eligibility worker pay rate, cost allocation methods, availability of data for other studies	Identify major factors likely to affect eligibility worker time, eligibility worker pay, and overhead	Low (if added to Study 1)
3: Exploratory Study of Automated Data Processing (ADP) Costs	Studies 1 and 2 (preferable)	Components of ADP costs, features of ADP systems, opinions on possible explanations of ASP cost differences	Identify major factors likely to affect variation in SAE, how to measure the effects of ADP spending on certification costs	Low
4. Pilot Study of Approaches to Collecting Disaggregated Eligibility Worker Time per Case	Studies 1 and 2 (preferable)	Expanded RMTS with case/task type for each event, or merged RMTS and case records	Feasibility of full-scale study using tested method(s) for Option 4 or Option 5-Subset of States	Low to moderate
5. In-Depth Collection of Accounting Data and Expert Interviews in All States	Study 1 preferable Study 2 necessary	Composition of SAE other than eligibility worker costs, expert estimates of eligibility worker time per task, opinions on reasons for variation in SAE	Identify composition of SAE, major factors likely to affect costs other than eligibility workers, effects of differences in tasks performed, other explanations for variation in SAE	Moderate
6. Full-Scale Study Using Enhanced Eligibility Worker Time-Use Data	Study 1 preferable Study 2 necessary Study 4 preferable	Enhanced RMTS file with case type or task indicators	Variation due to case mix, eligibility worker pay, overhead, tasks done, time per task (if tasks identified)	Moderate to high moderate (depends on number of States, State role)

Exhibit ES.3 (continued)

Suggested Program of Studies of Interstate Variation in FSP State Administrative Expenses

Study	Other Studies That Are Prerequisites[a]	Key Data Collected from States	Expected contribution	Relative cost
7. Full-Scale Study Merging Case Records with Eligibility Worker Time-Use Data	Study 1 preferable Study 2 necessary Study 4 preferable	RMTS file with case number, case records	Variation due to case mix, eligibility worker pay, overhead, tasks done	High moderate to high (depends on number of States, ease of processing)
8. Full-Scale Study Collecting Data on Average Time per Task by Case Type	Study 1 preferable Study 2 necessary Study 4 preferable	Records of eligibility worker service tasks with task type and case number; case records; supervisor interviews	Variation due to case mix, eligibility worker pay, overhead, tasks done, time per task	High

[a] Prerequisites for a study should be done before or in combination with that study.

[b] In this exhibit, "low" cost means expected cost under $500,000; "moderate" cost means expected cost between $500,000 and $1,000,000; and "high" cost means expected cost more than $1,000,000. The expectations are based on confidential estimates provided separately to FNS.

Study 3: Exploratory Study of Automated Data Processing Costs

As suggested in this report, there is considerable interest in the role of automated data processing (ADP) costs, both as a component of SAE and as a possible investment with payoffs in productivity of FSP operations. This study would include descriptive analysis of ADP costs, investigation and analysis of ADP system features and their relationship to costs, and investigation of the differences between high-cost and low-cost States through interviews and review of documents. Under the ideal sequence, Study 1 and Study 2 would be conducted before Study 3. One could then examine the characteristics and costs of ADP systems in States with high (or low) performance relative to their normalized SAE per case (adjusted for case mix, market wages, economic conditions, and other uncontrollables). The cost of Study 3 under this sequence would be low.

Study 4: Pilot Study of Approaches to Collecting Disaggregated Eligibility Worker Time per Case

Given the variety of methods that might be used to disaggregate eligibility worker time per case by case type or activity, it may be worthwhile to test these methods on a limited scale, particularly (a) merging RMTS data with case data, and (b) expanding an existing RMTS to include task information. The goal of this pilot study would be to gain a better understanding of the potential, limitations, and cost of the methods. Thus, samples collected would be smaller than for a full-scale study, and data would be collected from States that provide easy settings for the test. Including other suggested methods would allow tests of multiple approaches and comparisons of results.

The cost of Study 4 would be low to moderate, depending on the number of approaches tested, the number of States, and the role of the States. Some States might be willing to take on some of the cost of the test in order to have access to the results (e.g., training workers to complete new forms, processing the merge of RMTS and case records, etc.), while others might expect the researchers to carry out all of the data collection and processing.

Study 5: In-Depth Collection of Accounting Data and Expert Interviews in All States

A logical follow-up to Study 2 would collect three kinds of data in each State: accounting data for the decomposition of overhead, expert estimates of the eligibility worker time per task, and discussion of the reasons for variation in SAE. The accounting data would be collected to attempt the decomposition of overhead by level (local/State), between labor and nonlabor, and breaking out key nonlabor costs such as rent. The estimates of eligibility worker time per task would be obtained through interviews with key informants to permit implementation of the recommended version of Option 5-All States. There would be an excellent opportunity to discuss the findings of studies of SAE, both in general and with respect to each State individually. These discussions would help get "inside the black box" to understand the findings and suggest future directions for research. The cost of such a study would be moderate; a low-cost version could be done if the data collection were limited to 15 or fewer States.

Study 6: Full-Scale Study Using Enhanced Eligibility Worker Time-Use Data

This has the potential to be the least costly of the three approaches that appear to be feasible ways to implement Option 4 or Option 5-Subset of States. In a representative group of States, the RMTS or personnel activity report would be modified to capture data on the type of case served, the task, or both for each recorded event. Under one scenario, the researchers collaborate with the State to modify the forms, and the State carries out the data collection and tabulates the data. Under the other scenario, the researchers would implement the study. The State would approve the forms and supply the sample frame, and the researchers would do the rest. It appears that the most feasible approach in this scenario would be a telephone-based system, akin to a random-digit-dial survey. The cost of Study 6 would in five to seven States be moderate to high moderate, depending on who collects the data.

Study 7: Full-Scale Study Merging Case Records with Eligibility Worker Time-Use Data

This approach also appears to be a feasible way to implement Option 4 or Option 5-Subset of States, and it would be less burdensome to individual workers than the alternatives for these options (Study 6 and Study 8). In a representative group of States, researchers would collect and merge two data sets: RMTS or activity report data in electronic form with a case number for each event, and case records for the same time period. Efforts for the study would include: designing the sample and analysis, securing State cooperation and access to data, obtaining and processing files, and analysis and reporting. Because of the use of case records in addition to RMTS data, this study would be more costly than Study 6: the cost would be high moderate to high, depending on the number of States and the ease of processing their data.

Study 8: Full-Scale Study Collecting Data on Average Time per Task by Case Type

This study would essentially replicate the 1989 certification cost study, which was conducted in four States. Eligibility workers in selected offices would record each task for a specified period (such as a month), including the type of task, the duration, and the case type or case number. Supplementary time per task data might be collected from supervisors and support staff via interviews or surveys. Tests for differences in average time per task by case type would be conducted. Case records would be analyzed to determine the frequency of the tasks and the relationship of case characteristics to task frequency. Data from the States with the in-depth data collection would be combined with aggregate data for all States (SAE, case characteristics, economic conditions, etc.) for an analysis combining the approaches of Options 4 and 5. The cost of Study 8 would be the highest of all eight studies.

PART I: INTRODUCTION AND CONCEPTUAL FRAMEWORK

Chapter 1

Introduction

In September 2007, the Food and Nutrition Service (FNS), U.S. Department of Agriculture (USDA) awarded to Abt Associates Inc. the *Feasibility of Assessing Causes of State Variation in Food Stamp Program (FSP) Administrative Costs Study* (hereafter the *Feasibility Study*).[5] The purpose of the study is to develop a menu of approaches for better understanding how and why State administrative expenses (SAE) vary between States.

The *Feasibility Study* addresses two sets of research questions: issues of the data sources to be used, and alternatives for analyzing and explaining variations in administrative expenses. In particular,

- Is it possible to ***measure*** food stamp administrative expenses consistently enough across States to credibly assess the degree of variation? If it is possible, what are the alternative ways to measure such expenses? Are new data required? If so, what level of effort would be required and what challenges would need to be addressed to obtain such data?
- Can the causes of variation in State food stamp administrative costs be ***explained*** in the absence of experimental design? Why or why not? If so, what are the alternative approaches, and what are the advantages and disadvantages of each? Which approach is recommended and why?

These questions are interrelated. The types of data required depend on the methods to be used, and the feasible methods depend on the feasible data sources.

The remainder of this chapter presents some background on FSP costs, the research questions for the study, an overview of the strategy for explaining variation in SAE, and the data sources and methods used in this study. The balance of this report expands on many of the points first touched on here. Finally, at the end of this chapter, we discuss the structure of the balance of the report.

Food Stamp Program Costs

The FSP provides assistance to low-income households so that they can purchase an adequate supply of nutritious food. The FSP is the largest of the 15 domestic food and nutrition assistance programs administered by the US Department of Agriculture's Food and Nutrition Service (FNS). The FSP served 26.5 million people in an average month in Fiscal Year 2007, for a total Federal cost of $33.2 billion, of which $30.4 billion were for food stamp benefits (FNS, 2008a).

[5] On October 1, 2008, the Food Stamp Program will change its name to the Supplemental Nutrition Assistance Program (SNAP).

The FSP is jointly administered by the Federal government and the States.[6] The Federal government sets the basic program parameters and pays for all benefits. State governments choose program options from among those allowed by Federal statute and FNS regulations, and administer the program. Ten States devolve to their county governments the operation of the FSP, with varying levels of State supervision. The principal FSP administrative activities are certifying initial eligibility, updating and recertifying eligibility, issuing benefits (currently via electronic benefits transfer/EBT cards), and fraud control (investigating possible fraud and recovering overpayments). In addition, the FSP provides employment and training (E&T) and nutrition education (FSNE) services to eligible persons.

The Federal government and the States split the cost of administration; where the FSP is county-administered, county governments share the non-Federal expenses with the State. Administrative costs at the local and State levels are known formally as State Administrative Expenditures (SAE). These expenses are considerable. In FY2007, SAE totaled $5.5 billion, representing 17 percent of total FSP expenditures (FNS, 2008a). This is equivalent to $469 per participating household.[7] We discuss the determinants of SAE in the next chapter. Here, we note that per-case SAE varies widely across the States. The range in FY2007 was from $169 in South Carolina to $1,169 in California, more than a nearly seven-fold difference. SAE per case also varies over time: between 1989 and 2005, the average administrative expenditure for the nation (in 2005 dollars) ranged from $346 and $657 per household (Logan, Kling and Rhodes, 2008).

Administrative costs have a greater share of total program costs in the FSP than in several other human service programs, including the Temporary Assistance for Needy Families (TANF) and Unemployment Insurance (UI) programs, but less than in others, such as adoption assistance and foster care, according to a recent General Accountability Office study (GAO, 2006). The FSP also spends a greater percentage of funds on administrative costs than the Earned Income Tax Credit program, according to another recent study (Isaacs, 2008). Because of differences in programs and in the definition of administrative costs, such comparisons represent a starting point, not a basis for conclusions, regarding the question of whether the FSP is more or less efficient than other similar programs (as pointed out by the GAO report). Nevertheless, these comparisons highlight the need to understand what drives the differences between low-cost and high-cost States, and whether there are lessons for improving the efficiency of the FSP.

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[6] For the purposes of this report, references to "States" include the 50 States and the District of Columbia but exclude Guam and the Virgin Islands, which are not expected to be part of a cost study because of their unique circumstances.

[7] This estimate is computed as the ratio of total SAE to average monthly food stamp households. The actual number of unique households participating in the FSP during a year is more than the average of the monthly counts, but the annual unique count is not regularly reported. The annual cost per FSP household as defined above is equal to 12 times the average monthly cost per FSP household, and thus the annual and monthly cost per household are perfectly correlated.

Federal and State Perspectives on Variation in Administrative Expenses

Both Federal and State officials should be interested in the sources of variation in FSP SAE. At the Federal level, SAE is a large portion of FSP costs and a potential target for cutting federal expenditures. FNS generally pays half of the cost but States largely determine the level of SAE through their decisions about staffing, contracting, and other spending.[8] Thus, in considering the potential to reduce Federal expenditures for SAE, FNS and Congress might reasonably ask whether the wide variation in FSP SAE is evidence of potential cost savings if all States would adopt the strategies of the low cost States.

In the next chapter, we develop an integrated conceptual model of the determinants of FSP SAE. The discussion in that chapter suggests that it is useful to conceptualize the sources of variation in SAE as falling into two groups.

1. *Uncontrollables*: These are sources of variation that are beyond the control of the State. Such uncontrollables would include input prices (e.g., prevailing local wage rates, prevailing local rents, computer costs); they also include local demographic and economic conditions, which are a major source of variation in the size of the FSP caseload and its composition. The more interstate variation in FSP SAE is due to uncontrollables, the smaller is the scope for cost savings.
2. *Controllables:* These are sources of variation that are within the control of the State. Such controllables include FSP policies that affect which SAE tasks must be done (e.g., quarterly or semiannual reporting of earnings) and target service levels. More outreach, shorter waiting times for clients in offices and for processing of applications, more help in completing applications, and higher levels of accuracy all require more resources. In addition, many aspects of management structure are controllable and potentially affect SAE (e.g., State vs. county administration; use of call centers, investment in computer technology). The more interstate variation in FSP SAE is due to controllables, the larger is the scope for cost savings.

This discussion suggests that a key goal of any study of FSP SAE should be to establish how much of the variation is due to controllables. The discussion in Chapter 3 focuses on outlining models of FSP SAE that are estimable with obtainable data. These models would allow FNS to divide the variation between controllable and uncontrollable sources.

[8] There are several exceptions to the 50-50 split of SAE between FNS and the States. Starting in FY1999, the Federal share of certification costs has been reduced to offset the FSP share of common costs included in each State's TANF grant, as required by the Agricultural Research, Extension, and Education Reform Act of 1998 (AREERA, P.L. 105-185). State "reinvestment" in lieu of financial sanctions is not matched. FNS pays 75 percent of costs for administering the FSP on Indian reservations. In addition to reimbursement of the Federal share of SAE, FNS pays bonuses to States with top or most improved performance in payment accuracy, program access, and timeliness of certification.

In addition, Federal and State officials may be interested in the effects of specific policy and management choices.[9] Does adopting semi-annual reporting cut SAE? By how much? Are county-administered systems more expensive? By how much? Do investments in computer technology lead to long term savings in total SAE? In addition to strategies for explaining interstate variation in FSP SAE (and the extent to which it is due to uncontrollables and controllables), this document considers data and analysis strategies for estimating the cost implications of specific policy and management choices.

Purpose and Research Questions

This report has two purposes: (1) to identify and compare data sources that researchers could use to "credibly assess the degree of variation" in FSP SAE, and (2) to identify and assess potentially feasible non-experimental approaches to analyzing these data.

Feasibility of Obtaining Suitable Data for Analysis of Variation in SAE

In approaching the first purpose, we expanded on the research questions posed by FNS, as discussed below.

> Is it possible to measure food stamp administrative expenses consistently enough across States to credibly assess the degree of variation?

There are two basic issues posed by this question. The first is whether it is possible to obtain measures of expenses in all States (or a sample) that are consistent, i.e., that are measured in the same way. If the measurement of costs is different across States, this could introduce random variation (noise) or it could bias comparisons. As discussed later in this report, "measurement" may be obtaining data from FNS files or State information systems, or conducting new data collection. The second issue, not stated but implicit in the question, is whether it is possible to measure expenses **in sufficient detail to allow not only description of variation but also explanation of it**. As became clear in the assessment of analytic techniques, more detailed information is useful because it allows more "apples to apples" comparisons, and because analysis strategies can use more detailed information to focus on variation in components of costs, such as direct service staff time versus supervision versus nonlabor costs.

> If it is possible, what are the alternative ways to measure such expenses? Are new data required?

We identified three basic ways that SAE can be measured, in ascending order of cost and burden. First, comparisons can use the **State-level expenditures reported to FNS**. This approach requires no data collection, and indeed Abt Associates already has created and used an analysis file of these data for 1989 through 2005 for a study funded by the USDA Economic Research Service (Logan, Kling, and Rhodes, 2008). Second, one could **collect existing expenditure data from State accounting systems**. These systems include not only the purely financial data that directly support the claims to

[9] See GAO (2006, p. 36) "(T)here are opportunities available to the federal government to assist state and local governments in better identifying and implementing cost-saving initiatives that also ensure accurate and timely provision of benefits and services. However, minimal information is available on which opportunities are most effective and what any actual cost savings might be."

FNS but also the time measurement systems and other data systems that are used to allocate costs between the FSP and other programs. This approach would require cooperation from State accounting staff, but it would not pose any burden on local program staff. Finally, one could **conduct primary data collection**, in order to assure that the data were sufficiently detailed and comparable across States. This would require responses from local and State program staff (such as surveys or time studies), and also from accounting staff (for payroll and overhead costs).

> What level of effort would be required and what challenges would need to be addressed to obtain such data?

These questions apply both to the collection of existing expenditure data and to primary data collection on administrative expenses. The underlying issue is that FNS needs to know whether a strategy is feasible and whether it is worthwhile—that is, whether the effort of collecting data can be justified by the gain in the quality of data and the ability to draw conclusions from comparisons. The level of effort includes both the effort that FNS would fund (through a research contract) and the effort for the States and their staff to cooperate and provide the data. Other than contractor effort and burden on States, potential challenges for collecting existing data depend on the systems of accounts and other categories in which data are organized, the form in which the data are maintained (e.g., are records archived after a certain period?), and restrictions on access to records containing non-public information. Challenges for primary data collection include research design, pretesting, training and supervising data collectors, building sample frames (if applicable), conducting data collection, and dealing with nonresponse. An issue for collecting existing and primary data is that, where counties operate the FSP under State supervision, cooperation of counties is needed, and records may be available only at the county level.

Feasibility of Non-Experimental Methods for Explaining Variation in SAE

The first research question for considering analytic methods to explain variation in SAE is:

> Can variations in State food stamp administrative costs be explained in the absence of experimental design?

Experiments are the "gold standard" of social science, but in this context an experiment is not feasible, as explained below.

A well-designed experiment assures that the treatment and control groups differ systematically only in the interventions being explored, so that differences in outcome can be attributed to the treatment or conditions under study, and our uncertainty about the results can be precisely expressed as a function of sampling and measurement error. In public policy studies, experiments are used to test the effectiveness of interventions or changes in policy with random assignment at the individual, group, or site level.

Attempting an experiment with random assignment of policies at the State level poses two major problems. ("Policies" may be specific rules or practices, or more global choices such as decentralized versus centralized processing of cases.) First, obtaining the agreement of States to set their policies as specified by the evaluation's "coin toss" or other random outcome would be difficult if not impossible. Second, with at most 25 States in each group, the likelihood of significant and relevant differences other than the specified intervention or policy is high and the power to detect differences

in a simple comparison between groups may be low. For example, the cost impact of allowing on-line applications would depend on the rate of new applications, which will vary with State demographics and economic conditions. With a small sample, there is a substantial probability that the treatment group might have significantly more (or less) frequent new applications and thus more (or less) savings in the overall certification cost per case. In a non-experimental study, of course, State differences may in fact contribute to policy choices, so this issue is not unique to experiments.

Furthermore, there are many factors under the control of State agencies that may contribute to variation in food stamp SAE among States. A large number of experiments would be needed to test all of the policy options and alternatives for structuring operations. Each experiment would need to assure that there is no significant difference between groups in policies that might affect the outcome, other than the policy being tested. Finally, policy effects may interact, and the most effective combinations may be unknown, thereby adding another dimension of complexity. This issue, too, is one common to both experimental and non-experimental studies.

An experimental design might be used within a State to test the effects of policy or management choices on administrative costs. Such an experiment would allow variation in a limited set of choice variables across counties while holding constant other conditions that vary between but not within States (such as the effectiveness of the computer system). Issues for conducting such an experiment would include: gaining cooperation of county agencies, implementing policies that vary by county, measuring costs accurately at the county level, and generalizability of the results to other States. If an experimental design is not feasible but other conditions are favorable, a non-experimental study might examine the relationship of varying policies and practices to administrative costs (for example, are certification costs higher or lower when workers specialize on intake versus ongoing case management, relative to a generalist staffing model?).

Thus, while experimental methods have higher internal validity, nonexperimental methods are more likely to be useful for understanding variation in SAE. The fundamental weakness of non-experimental approaches is the risk of selection bias. States differ both in the **policies they choose** (the controllables) and in factors that are beyond their control (the uncontrollables). If States choose policies in response to uncontrollable conditions, and those conditions also affect the outcome of interest (in our case SAE), we must be aware of the role of these conditions and take them into account in the analysis; otherwise, we will incorrectly attribute their effects to the policies of interest. For example, States with high wage rates for eligibility workers might be more likely to adopt policies that reduce eligibility worker burden, such as simplified (semi-annual) reporting of income and household circumstances. Unless one adjusted statistically for differences in wage rates, one might conclude that costs are *higher* when simplified reporting is used, or that simplified reporting makes no difference in costs, when in fact this procedure is helping States to keep costs down. The greatest problem arises with **unknown uncontrollables that are related to policy choices and outcomes**, because we cannot include these factors directly in the analysis. (Time series analysis techniques can be used to control for unknown State characteristics that may be related to policy choices, as discussed in Chapter 3.) In addition, if the controllable factors (policies and procedures) are highly correlated with uncontrollable factors (such as the local economy), their effects cannot be separated.

An additional challenge for non-experimental approaches is the large number of potential factors for modeling variation in SAE. The "uncontrollables" include case characteristics, caseload dynamics (entry and exit rates, volatility of employment and earnings, etc.), some State and local agency

characteristics (scale, scope,), and pay rates in relevant labor markets. The "controllables" include policies and procedures, investments in systems and training, actual pay rates for workers, and use of contractors. When there are many potential variables, it becomes more difficult to estimate their effects, particularly if "uncontrollables" and "controllables" are highly correlated. This is the problem of collinearity. As noted above, however, the large number of potential factors affecting costs is also a challenge for any experimental study.

The limitations of a non-experimental study are less problematic when the purpose is exploratory, i.e., if FNS seeks to examine the conditions **associated with** variations in costs, without expecting a definitive answer about what **causes** variations in costs. The information gained from an exploratory study could generate hypotheses that are worth testing formally. Also, a non-experimental study would be less prone to bias if it focused entirely on **uncontrollable** sources of cost variation through a "reduced-form" approach (assuming that all decisions on controllables are driven ultimately by uncontrollables). However, this reduced-form approach would not provide any information on the effects of policies. Last, the problems of non-experimental designs can be reduced by the choice of analytic techniques. If the theoretical model of aggregate costs has too many variables or significant unknowns, the costs can be disaggregated into simpler and more complete models. Bias in estimating the effects of State choices can be avoided by analytic methods that control for unmeasured variables associated with State choices.

As discussed in this report, there are a number of possible non-experimental approaches that can provide insights into the sources of variation in food stamp SAE. The degree of confidence in these insights will depend on risk of selection bias and collinearity, the sensitivity of results to the assumptions, and the quality of the data. Thus, we reframe the research questions regarding analytic methods as:

> *How well can variation in State food stamp administrative costs be explained with non-experimental methods? What are the alternative approaches, and what are the advantages and disadvantages of each? Which approach is recommended and why?*

To answer the first question, we must address the second. We broke it down into the following questions:

- What are the alternative conceptual frameworks for explaining variation in SAE?
- What data and analytic methods could be used to apply these frameworks?
- What are the potential study designs, their data requirements, and their theoretical advantages and disadvantages?
- What are the implications of the data assessment (addressing the first study objective) for the feasibility and relative merits of the potential study designs?

This report addresses these questions and provides recommendations for a program of study on interstate variation in SAE. We draw on existing literature regarding administrative cost issues in the FSP and related programs, on established principles of non-experimental design, on our prior experience in studies of the FSP and related programs, and on the data collection for the study. The basic strategy for explaining variation in SAE and the data sources for the report are described below.

An important issue for this study was that total SAE for the FSP includes the costs of a substantial number of different functions, each with its own set of tasks and inputs. Thus, to explain the variation in total SAE, one must analyze each function. A complete feasibility assessment for analyzing all of the FSP functions would be a very complex and extensive document, and was beyond the scope of this study.

For this study, we prioritized our assessment by assuming that certification is the most important theoretical category. Certification costs—as labeled in State reports—represent three-fifths of all SAE (as discussed in Appendix A). We define certification costs more broadly for this study, to include in principle all of the direct and indirect costs of determining eligibility and maintaining cases. (This definition is discussed in Chapter 5.) Certification policy gives States many options that may affect costs. Certification is primarily carried out by local agency staff, particularly eligibility workers, so we devoted the most attention to the data and methods to analyze variation in these costs. We also assumed that data processing costs are another area of interest, mainly because of the potential trade-offs between eligibility worker costs and automated data processing costs. We acknowledge that services to clients other than certification (such as nutrition education, employment and training, and fraud control) are important FSP functions, but different frameworks are needed to study variation in their costs. These frameworks can build on the concepts and approaches in this report.

Key Themes of This Report

A major theme of this report is that there is an interplay between analytic assumptions, data requirements, analysis strategies, and the strength of conclusions that can appropriately be drawn. Analyses using easily available data require strong assumptions and will support only weak—though still potentially insightful—conclusions. Additional data will allow more robust approaches and stronger conclusions. Our assessment of these approaches and trade-offs is guided by our understanding of the importance of these issues to FNS and the States, and our awareness of the constraints on FNS' research budget. Following the development and assessment of approaches and data, the final chapter of the report sketches several attractive strategies.

Another key theme of this report is a focus on the use of existing data, including the States' reported administrative expenses for the FSP and supporting data from time measurement and accounting systems. The key time measurement process in most States is a "random-moment time study" (RMTS) in which randomly selected workers record their activities and the program they are working on at randomly selected times. Such data are much less burdensome and costly to collect than new, primary data, which require responses from large numbers of busy people to assure statistically valid estimates. Moreover, State accounting systems maintain multiple years of data that could support longitudinal analysis, whereas primary data collection on the scale that would be needed for a study of SAE would at most be feasible on a one-time basis. (Background on State accounting and cost allocation systems is provided in Appendix B.)

On the other hand, we identify a number of known limitations and uncertainties about the existing data. The most important limitation is that the ideal level of detail on costs does not appear to be widely available and would not be feasible to obtain. However, we suggest ways to use more feasible research strategies to improve over the simplest approach: time series of cross-sections analyses of aggregate SAE cost data as a function of controllables and uncontrollables. There appear to be some

inconsistencies in definition, measurement, and cost allocation across States and over time that pose some constraints for analysis, but these are far from fatal to the suggested approaches. There are several uncertainties about the structure and scope of existing cost data, but these could be readily addressed through a survey of States. There is a wealth of strong national databases for many potential explanatory variables, but there are some notable limitations with respect to worker activities, price variation for inputs other than labor, State fiscal conditions, and FSP procedures and operating characteristics.

Data Sources for This Report

For this study, we reviewed a range of published reports on administrative costs in the FSP and similar programs, as documented in the references of both memoranda. While we did not conduct a systematic literature search, we identified relevant publications through key agencies' web sites (FNS, USDA Office of Inspector General, Government Accountability Office, and Department of Health and Human Services) and through our prior research experience.

We also conducted semi-structured interviews with officials at FNS Headquarters, four regional FNS offices, and the Department of Health and Human Services to gather information about five main topics:

- the comparability of reported administrative expenditures among States,
- the availability of usable information on the composition of administrative expenditures from States,
- the feasibility of collecting and analyzing client information system data on case openings and changes,
- the availability of data on State budgets for administering public assistance programs, and
- respondents' views on the reasons for variation in administrative costs across States.

The interview topic guides for these Federal interviews are provided in Appendix C.

We selected and recruited four States for telephone interviews to gather further information about cost reporting, available data, challenges of collecting data for expenditure analysis, and possible explanations for variation in SAE across States and over time. The States, selected to represent a range on several dimensions (size, administrative cost per household, county- versus State-administered, and FNS region), were Nevada, New Mexico, North Carolina, and Pennsylvania. The States and their characteristics are shown in Exhibit 1.1. The topic guide for these State interviews appears in Appendix D. The major topics were:

- What types of local office employees are involved with FSP certification and related tasks, and what are their other functions?
- How are local office worker costs for the FSP measured?
- How are other key administrative costs for the FSP measured and allocated?
- What are the major challenges in measuring and reporting FSP expenses, and how do they affect the reporting of SAE?

Exhibit 1.1

Characteristics of State Agencies Participating in Study Interviews

State	FNS Region	Rank by Size, FY2006 FSP Households (1 is largest)	Rank by FY2006 Admin. Cost per Household (1 is largest)	State or County Administration of Local Offices
Pennsylvania	Mid-Atlantic	7	13	State
Nevada	West	37	18	State
North Carolina	Southeast	11	38	County
New Mexico	Southwest	34	30	State

Sources: Number of participating households from http://www.fns.usda.gov/pd/16fsfyhh.htm. Total FSP administrative cost provided by FNS, extracted from National Data Bank.

- What is the feasibility of collecting data from existing sources for in-depth analysis of FSP certification costs?
- What is the relationship of FSP administrative expenses to State and local budgets?
- What is the feasibility of collecting data on the relevant budgets?
- What are the views of State officials on the reasons for variation in SAE for the FSP?

We conducted two to four telephone interviews with each State, because of the length of the topic guide and the number of respondents needed to complete the topic guide. The total interview time ranged from four to six hours per State. We also gathered and reviewed documentation from each State, including cost allocation plans and spreadsheets or reports documenting the costs charged to the FSP.

The data collection activities were intended to provide insights into the basic questions for the data assessment. We acknowledge both the strengths and the limitations of the information collected. Interview responses at the Federal level are based on a national perspective, but staff at this level have limited access to detailed information about how individual States track, allocate and report administrative expenses. Furthermore, in some areas the responses represented opinions based on their individual experience, rather than objective information.

Through the State interviews, we gained substantial insight into both the possible sources of variation in expense reporting and the controls in place to minimize the effect of this variation on the accurate and equitable claiming of SAE for the FSP. We were able to identify common patterns among the States that generally are consistent with the descriptions from the Federal interviews. On the other hand, we generally cannot make broad conclusions from the State interviews, because of the small number of States, the purposive selection, and the exploratory nature of the review of documentation. A true validation of reported SAE requires an in-depth review, such as the reviews conducted by FNS regional offices or the Single-Audit Act (A-133) audits conducted by the States. Such an effort was not in the scope of this study.

In the report, we make generalizations based on these data sources. **All generalizations are subject to the caution that they are based on the limited data sources for the study**. In addition, where

we found conflicting evidence or heard differing views on a topic, we note this as an area of uncertainty. The discussion of issues for future research reflects the limitations of our information and the important areas of uncertainty.

Organization of this Report

The balance of this report provides relevant background, defines a series of possible research approaches and specific options, assesses the potential data sources, and assesses the feasibility of the options. The report is organized in three sections, each of which we describe below.

Part I of this report, the introduction and conceptual framework, includes this chapter and the three subsequent chapters. We describe potential approaches to comparisons of SAE and analysis of the sources of variation, both in general and in relation to specific policy and management choices. We present our conceptual framework and potential research approaches before discussing data sources because the data requirements depend on the analysis approach. Chapter 2 defines the three ways that SAE may be decomposed, leading to the definition of four components of variation in SAE: input prices, case mix, tasks per case, and inputs per task. The chapter then presents a conceptual model of how these components are determined. Chapter 3 presents a series of general analysis strategies, starting with a comprehensive but highly data-intensive approach and then presenting alternative strategies that simplify the data requirements. In Chapter 4, these strategies are translated into specific study designs, each of which consists of an analysis strategy, a set of data requirements, and one or more potential data sources.

Part II assesses the data sources for these study designs. The primary focus is on the availability and quality of data to analyze SAE at various levels of disaggregation, and the implications for the feasibility of the proposed study designs. Chapter 5 examines the issue that is fundamental to any attempt to explain variation in SAE: the extent to which reported SAE is comparable across States and over time. Chapter 6 explores the possible sources for analyzing the most important input for FSP administration: eligibility worker time, compensation and costs. In Chapter 7, we assess strategies and data sources for decomposing reported expenses other than eligibility worker costs. Analysis of SAE requires data on the explanatory variables at the goals, policy, management, and population levels; Chapter 8 assesses the availability and quality of data on these variables.

Part III presents our conclusions about the feasibility of explaining variation in SAE for the FSP. In Chapter 9, we summarize the findings and present our recommendations for a suggested program of research. This chapter categorizes the suggested studies on a scale of low to high expected costs.

Following the text, we provide references and background information in appendices. Appendix A presents supplementary background information on FSP administration. To help the reader understand the nature of SAE, this appendix describes the administrative functions, the composition of SAE, and the roles of local and State agencies. Appendix B summarizes the rules and systems for accounting, allocation, and reporting of SAE. These rules and systems define SAE in practice and, as discussed in Part II, have important implications for the strengths and limitations of the data available to analyze SAE at the accounting, case, and task levels. This appendix includes the form and definitions used in State reporting of SAE to FNS. Appendices C and D provide the interview guides used to collect data for this study.

Chapter 2

Perspectives for Comparing State Administrative Expenditures for the FSP

This report's consideration of feasible strategies for understanding variation in FSP SAE is built on a conceptual model of the components of FSP SAE and their determinants. This chapter develops that conceptual model and its implications.

Decomposing FSP SAE

To understand our approach to FSP SAE it is useful to decompose FSP SAE in three ways: an "Accounting Decomposition", a "Case Decomposition", and a "Task Decomposition". They are successively finer and more insightful conceptual approaches. While none of these decompositions can be directly estimated, we discuss in Chapter 3 how we might use available data to approximate them.

Accounting Decomposition

By definition, the total State Administrative Expenditure for the FSP in a given period of time for a given State is the sum of expenditures for all items purchased:

$$(2.1) \qquad FSP\_SAE = \sum_j \sigma_j p_j X_j$$

where j indexes every line in the State's payroll and accounts payable detail file,[10]
X is the number of units of the input purchased,
p is the price per unit paid for the input, and
σ is the FSP share of the cost of the input.

Each term should have a superscript for State and time period. We suppress those subscripts for clarity. In this formulation, inputs are defined quite specifically, such as hours of an individual entry level eligibility worker, hours of the State Food Stamp director, or square feet of rental space at a specific office).[11] The unit prices of input are also specific, e.g., the fully compensation per hour for an entry level eligibility worker, including salary, fringe benefits, and taxes; or per-square foot rent on a particular office.

[10] As noted in Chapter 1, county governments administer the FSP in some States. For simplicity, we refer in the text to the "State" payroll or actions taken by the "State", regardless of whether the State is directly or indirectly administering the FSP.

[11] The definition of a unit of an input can vary, depending on the context. For example, workers may be typically paid on a biweekly basis. Thus, the accounting system shows the purchase of a unit of two weeks of work. With other data sources, smaller units of worker time can be defined. Similarly, the lease for a computer may be a single annual payment, but its usage may be measured in much smaller units.

The quantity and price terms are relatively straightforward. The FSP cost share (σ) warrants additional discussion. FSP administrative expenditures at the State and local levels represent a combination of FSP-specific and shared activities. For FSP-specific activities, the entire cost is passed to FSP SAE and we set σ to 1.0.

However, many activities affecting the FSP are shared. For example, the State FSP agency usually administers Temporary Assistance for Needy Families (TANF), Medicaid eligibility, State cash assistance programs, and a variety of other programs of assistance for persons with low incomes. Thus, there are shared administrative activities at the State level and at the local level (overall management, budget and finance, personnel, information systems, and so forth). To the extent that these activities represent fixed costs (at least within a certain range of combined caseloads), the FSP share (σ) will be lower in States where other programs are larger in relation to the FSP, particularly if those programs serve the same clients.

In addition, individual clients often participate in several programs at the same time. For example, most TANF and SSI recipients are categorically eligible for the FSP and Medicaid. Thus, many activities for FSP-TANF cases (e.g., taking the initial application, some aspects of renewal and redetermination) are intrinsically joint; i.e., a single action benefits multiple programs. As we discuss in detail in Appendix B, federally approved cost sharing rules are used to assign a share of these costs to the FSP (and to the other programs). Thus, both the case mix and the State-specific cost-sharing rules will affect the FSP share. Individuals apply for SSI at an SSA office, where they can also apply for the FSP. SSI recipients can jointly apply for the FSP and Medicaid at FSP offices. For SSI applicants and recipients, the average FSP cost per case depends in part on how often these households apply for the FSP through the SSA office rather than the FSP office. [12]

This accounting perspective can be defined exactly. The index *i* includes every unique line in the State's accounting system—each paycheck to each employee, every rent check, every payment to an office goods supplier. In this conceptualization, every transaction has a unique quantity, price, and share allocated to the FSP.

Any attempt to use this approach in applied work would almost certainly want to aggregate individual transactions to some higher level of aggregation. Such higher levels of aggregation might include: eligibility worker labor, supervisor labor, rent, computer systems, and "overhead" (i.e., the remaining costs that are not included in separate categories). Equation 2.2 rewrites Equation 2.1 in terms of K broad types of purchases (indexed by *k*).

$$(2.2) \qquad FSP\_SAE = \sum_{k=1}^{K} \overline{\sigma}_k \overline{p}_k X_k$$

[12] Approximately 27 percent of FSP households participate in the Supplemental Security Income (SSI) program (Wolkwitz, 2007). If a household applies for the FSP at an office of the Social Security Administration (SSA), the SSA shares some of the cost of FSP certification. The extent of this cost-sharing is a function of the share of FSP applicants eligible for SSI, the SSA share of FSP applications for SSI households, and the relative effort of the SSA and the State food stamp agency in processing such applications. The SSI/FSP Combined Application Projects (CAP) are intended to reduce the proportion of SSI households that apply at FSP offices and streamline these applications; both of these changes would be expected to result in FSP cost savings or in the reallocation of FSP administrative resources to other uses.

where k is the input category,
X is the total quantity of the inputs in the category purchased,
$\overline{p}$ is the average price per unit paid for the inputs in the category, and
$\overline{\sigma}$ is the average FSP share of the cost of the input.

We emphasize that the prices and FSP shares are averages over the inputs in the category k. At such a higher level of aggregation, the mapping to actual financial systems is no longer exact. Each category is an aggregate of multiple inputs (e.g., different levels of experience of eligibility workers), each with its own price and varying in their cost shares. Given such an aggregation, an analyst will need to explain how price, quantity, and cost sharing fraction are defined and how they combine to give total FSP_SAE. In particular, the appropriate definition of quantity is not necessarily a simple sum when the inputs in a category are heterogeneous. For example, five hours of a more experienced worker would be expected to produce more than five hours of an entry-level worker. This distinction is especially important because turnover among eligibility workers varies substantially across and within States, according to experts interviewed for this report.

One natural approach would proceed as follows. Set the FSP share, σ, to the average share within the group; set the price to some observable market price (e.g., a cost index for local labor), and define the quantity such that the product of cost-share, price, and "quantity" equals the total SAE for everything in this aggregate. Option 2 in Chapter 4 describes this approach in more detail.

This model leads naturally to a decomposition of FSP SAE in terms of the relative importance of different inputs. How do States vary in the share of FSP SAE going to eligibility workers, other front-line workers, supervisory staff, computer systems, and overhead (above the office level)? It also leads naturally to decompositions in terms of variation in input prices (e.g., eligibility worker wages and rent are likely to be higher in more urban States).

Case Decomposition

It is useful to think of inputs being expended on individual cases. We argued in Chapter 1 that caseload composition might affect per case FSP SAE. Some types of cases are less expensive (e.g., TANF cases for which certification costs are shared with TANF and Medicaid, elderly households with stable circumstances) and some types of cases are more expensive (e.g., cases with more household members, cases with earnings that have more frequent changes in income).[13] We seek a decomposition that incorporates this source of variation.

Again, we develop this approach in two stages. First, work at the case level:

$$(2.3) \qquad FSP\_SAE = \sum_{c=1}^{N} \left\{ \sum_{j} \sigma_{j,c} p_j X_{j,c} \right\}$$

where c denotes an individual case,
N is the total number of cases,
σ is the FSP share of costs for case c,
p is the price of input j used for case c, and
X is the quantity of input j used for case c.

[13] See Chapter 6 for discussion of the special case type of households receiving disaster assistance under the FSP.

Within the brackets we have the cost from case c. As in Equation 2.1, it is the sum over all lines in the detailed accounts payable data, j, of the product of the quantity of the input for the case, the price of the input and the FSP share of the input.

With ideal data, this approach would be almost exactly defined. In principle, it is possible to identify how much time each eligibility worker spends on each case. It would not be necessary to measure time for all cases; instead, a random sample of cases could be selected, and all workers could be instructed to report time spent on these cases. (This is an adaptation of a method, known as the "job ticket," used in government accounting systems (DoD, 1995).[14] This measurement could in principle be extended to capture the use of other inputs (recording computer time, tracking postage for mailings, etc.), but of course this measurement would be a great burden on the State agencies and their staffs. Moreover, some inputs would have to be treated as overhead and assigned in proportion to the use of inputs that are directly measured. For example, while the space used by an eligibility worker can be measured and assigned a cost per square foot, that space is used to serve numerous cases. Furthermore, several workers may serve a case at different times. Thus, to assign the cost of space to an individual case, it is necessary to apply an allocation rule, such as the percentage of total staff time in the local office devoted to the case.

Again, at this level of aggregation, this approach is not useful. To arrive at a more useful formulation, we again aggregate individual expenditures into groups (with index k). We also aggregate individual cases into G groups (with index g) such that each case belongs in exactly one group. Then, we can write FSP SAE as:

$$(2.4) \qquad FSP\_SAE = N \sum_{g=1}^{G} n_g \left\{ \sum_{k} \overline{\sigma}_{k,g} \overline{p}_k \overline{X}_{k,g} \right\}$$

where n_g is the fraction of the total cases (N) represented by case type g,
$\overline{X}$ is the average quantity per case of the inputs in the category purchased,
$\overline{p}$ is the average price per unit paid for the inputs in the category, and
$\overline{\sigma}$ is the average FSP share of the cost of the input.

It is now useful to view the inner summation as referring to averages for cases of type g (thus the bars over the terms). For a given case type, per case costs are the sum over all (grouped) inputs, k, of the product of the average number of units of each input, X, the cost per input, p, and the average cost share of this input for this case type, σ.

We note that, in principle, the number of "cases" in this formula includes households that interact with the FSP but are not authorized to participate. Some households inquire about the FSP but don't apply; others begin but do not complete the application process; others apply and are denied benefits. In practice, there is no routine source of counts of all households interacting with the FSP. Therefore, we will refer to the cost per authorized case (or household), while acknowledging that not all costs are incurred for these households.

[14] In a job ticket system, each worker that spends time on a specific product records that time on a form that is physically or virtually attached to the product. This system provides information on the cumulative labor costs of all of the steps that go into producing individual items. (Department of Defense (DoD), 1995.)

Again, an analyst may want to redefine quantity to align with the observed prices. The outer summation computes the weighted average cost per case across case types, where the share of cases of each type (n_g) is the weight. The total FSP SAE is then the product of the total cases (N) and the weighted average cost per case.

The crucial insight of this approach is that some types of cases require more inputs than others. In Chapter 1, we argued that a key analytic challenge in understanding variation FSP SAE is to estimate the amount of variation remaining after we control for uncontrollables—input prices and case mix. Equation 2.4 incorporates these two key uncontrollables; and can therefore provide a conceptual framework for that exercise. The equation also points to potential State differences in the amount of inputs per case for a given case type, reflecting State choices about the level of service (broadly defined). We develop this idea in much greater detail—including how to apply it to available data—in our discussion of Options 3 and 4 in Chapter 4.

Task Decomposition

The "Accounting Decomposition" defined FSP SAE in terms of specific inputs. The "Case Decomposition" defined FSP SAE in terms of specific inputs and individual cases. The "Task Decomposition" attempts to define FSP SAE in terms of specific inputs, individual cases, and actual tasks performed. It attempts to provide a framework in which to answer the question: What do States actually do that generate administrative expenses?

We are motivated to adopt this "Task Decomposition" because beyond uncontrollables (i.e., input prices and case mix heterogeneity), we believe that FSP SAE varies because of two other factors: (i) what tasks States do; and (ii) what resources States use to do those tasks. Each of these concepts demands further discussion.

What Tasks States Do

When "tasks" are appropriately defined, it seems unlikely that all States do the same "tasks". FNS regulations require States to achieve certain high level outcomes. Initial certification must be completed within some time frame. Periodic recertification must be completed with some frequency. All actions must be completed with acceptable error rates.

Sometimes those actions are optional or waivable if a State adopts a specific policy. Thus, States may require FSP participants to file quarterly status reports. Shifting to semi-annual reporting should cut the effort to process status reports in half.[15] At State option, categorical eligibility for the FSP can be defined more or less broadly, within the boundaries set by FNS policy. Where categorical eligibility is expanded, more households are exempt from FSP asset limits, and therefore the State less often has to determine the value of household assets. We want a conceptual model that can help us to think through how such policy changes should affect FSP SAE. Such a model should help us to specify empirical approaches that will allow us to understand how such policy changes should affect FSP SAE. Understanding the effect of such policy changes should be a goal of any study of FSP SAE.

Furthermore, the intensity of some tasks is a State option. There is only a minimal requirement for outreach (i.e., encouraging eligibles to reply), for helping applicants to complete applications. There

[15] This is a simplification, not taking into account program exit rates by month and other considerations.

is no requirement for Food Stamp Nutrition Education. Our conceptual model should help us to specify an empirical model that will help us to understand how such tasks affect SAE.

Finally, we believe it is useful to specify tasks much more finely in terms of outcomes. For example, an ideal model would distinguish applications processed nearly immediately vs. applications processed just before the FNS deadline vs. applications processed after the deadline. Similarly, an ideal model would distinguish between actions performed without errors and actions performed with errors. An ideal model would distinguish between applicants seen immediately vs. applicants seen after a wait (e.g., of more than an hour) vs. applicants asked to come back because the eligibility worker could not seem them at all on the scheduled day. When a task is defined this way, and when the type of case is sufficiently specific, the input requirements are far better defined.

As we discuss in detail in the next section, this finer definition of a "task" is crucial for thinking about how State budget decisions affect the decisions of State FSP leadership and ultimately what happens in FSP offices and the services received by (current and potential) FSP participants. When State FSP SAE budgets are cut or when caseloads rise but State FSP SAE budgets do not (or in States with historically lower FSP SAE funding), something happens. Perhaps to some extent State employees absorb the extra work by putting in more effort. More likely, some tasks go undone, either at the direction of State managers via explicit policy changes or through "triaging" decisions made at lower levels of the agency. There is less outreach, less help completing applications, less Nutrition Education. In addition, time on each broadly defined tasks (e.g., initial determinations) goes down, so error rates go up (Logan, Kling and Rhodes, 2008). In terms of our finer classification of tasks, fewer "no error" tasks (e.g., initial determinations) get done and more "with error" tasks get done. If errors are detected, more claims are established for overpayments, and more adjustments are processed for underpayments. Thus, errors in some tasks result in additional work in other tasks. Excess capacity goes away, so queues develop. Thus, fewer of the "applicants processed immediately" tasks are performed; more of the "applications processed just before the deadline" and "applications processed after the deadline" tasks are performed. Our conceptual model should include these changes.

Of course, our earlier language emphasizes that this is an "ideal" model; i.e., a model appropriate for conceptualizing FSP SAE, its components, and its determinants. We will see in the following chapters that the available data do not allow us to get even a rough approximation to the very fine definition of "task" used in this model. The next chapters discuss much broader tasks. We then need to ask: What are the consequences of only being able to use a broad definition of task in our empirical work? The previous paragraph provides the beginning of an answer to that question: the broad definition of tasks does not distinguish between tasks done well and those done at the minimum standard of performance. The end of this chapter expands on that discussion. The balance of the report develops those ideas even further.

What Resources States Use to Perform Tasks

Even for a given task, States may vary in the resources used to perform the tasks. There are trade-offs among these resources. Some agencies have high turnover and use more entry-level eligibility workers, who presumably take longer to do most tasks than more experienced and higher paid workers. If a State invests more in modern computer technology, we would expect that the labor required to do a task will decline. Similarly, if a State builds (or outsources to) a call center, local office eligibility worker effort goes down. County-operated FSP programs are likely to require less State-level administrators, but more local-level administrators. More managers (who manage

appropriately) might get better results from line workers (e.g., better training and double checking leading to fewer errors; identification of bottlenecks leading to increased productivity).

Each of these statements is a conjecture. It seems plausible that more expenditure in one area leads to less expenditure in another area. State FSP managers and FNS would like to know the net cost. In assigning tasks to junior or senior eligibility workers, what is the trade-off between the hourly cost (pay rate) and the total cost of their functions, considering that lower-paid junior workers may take longer and need more training and supervision? What is the optimal number of eligibility workers per supervisor? What is the optimal level of computer investment? Our conceptual model should help us to think through these issues and specify ways to quantify the trade-offs. We caution here that, as discussed elsewhere in subsequent chapters, the level of information to answer these questions is probably not attainable in the short term.

The Task Decomposition Model

We want a conceptual model that will help us to think through these issues. The "Case Decomposition" is not sufficient. We can observe that one type of input goes up and another goes down, but perhaps the tasks performed also changed. This is not a pure cost savings; instead, this is a change in the "administrative services" being performed. Federal or State policy might require or prohibit specific administrative services (e.g., help in completing applications). These policy choices are distinct from the general expectation that States should adopt efficient approaches to delivering whatever specific services constitute FSP administration.

We specify such a "Task Decomposition" here. In Chapter 4, we discuss an approach (Option 4) that would allow the implementation of this decomposition with some simplifying assumptions. Again, we develop this approach in two stages. First, we begin at the level of the individual action:

$$(2.5) \qquad FSP\_SAE = \sum_{c=1}^{N} \left\{ \sum_{m} \left\{ \sum_{j} \sigma_{j,c,m} p_j X_{j,c,m} \right\} \right\}$$

where j indexes every line in the State's payroll and accounts payable detail file,
m indexes each task,
c indexes each case,
X is the number of units of the input purchased,
p is the price per unit paid for the input, and
σ is the FSP share of the cost of the input.

This approach is completely analogous to Equation 2.3. Each task, m, for case j, uses X units of input j, at price p, with share σ assigned to the FSP. Total costs are found by summing over all cases, c, all inputs, j, and all tasks m.

An omniscient observer could construct the requisite underlying data from a "continuous time" study that would record, for every moment of the day, the case on which the eligibility worker was working and the task (e.g., an initial determination—immediately after the application was received, processed without error—for case 23781, which is a joint TANF case with one adult and two children, and no earned income). Of course, no such omniscient observer exists, but one could imagine generating nearly equivalent information through a super-RMTS (random moment time study). In such a super-RMTS, at the sample moments the eligibility worker would record the case characteristics *and* the task (e.g., initial redetermination). As with the case decomposition, measuring the use of other

resources such as space for individual tasks would be more difficult and might require the treatment of those resources as overhead.

Again, at this level of disaggregation, this approach is not useful. To arrive at a more useful formulation, we again aggregate individual expenditures into *K* categories (with index *k*). We also aggregate cases into G groups (with index *g*) such that each case belongs in exactly one group. Finally, we compute average tasks per case-type and average effort per task (by case-type). Then, we can write FSP SAE per case as Equation 2.6, in which *g* denotes case types, *k* denotes inputs, and τ denotes tasks:

$$(2.6) \qquad UNIT\_FSP\_SAE = \sum_{g=1}^{G} n_g \left\{ \sum_{k} \left\{ \sum_{\tau} \bar{\sigma}_{k,g,\tau} \bar{p}_k \bar{\pi}_{g,\tau} \bar{\phi}_{k,g,\tau} \right\} \right\}$$

The parameters of interest are:

n_g, the share of the caseload for each case type *g*,

$\bar{\sigma}$, the FSP share of costs, varying here by input, case type, and task,

$\bar{p}$, the average price of each input,

$\bar{\pi}$, the average frequency of each task by case type, and

$\bar{\phi}$, the average quantity of each input per task, varying by case type and task.

Here the inner summation is over all possible tasks, τ. For each task, the cost per case of the input is the product of the FSP share of the cost, the average price of the input, the average frequency of the task per case, and the average number of units of the input used to perform the task once. The average cost per case for each input is the sum over all tasks. The cost per case is then summed over inputs to determine the total cost per case for each case type, including all inputs and all tasks. The overall average FSP cost per case is the weighted average across case types, again weighted by the caseload fractions for the case types.

With ideal data, this decomposition would allow us to understand both changes in the quantity of resources used to perform tasks and changes in which tasks are performed. We will see that nothing approaching ideal data exists or is likely to exist. Nevertheless, this Task Decomposition is useful because it emphasizes the role of variation in which resources are used for a task and variation in which tasks are actually done.

Determinants of FSP SAE

We can use these three decompositions to consider the determinants of FSP SAE. From an accounting perspective, the first decomposition is all we need. States choose the level of inputs (e.g., labor, office space, computer). Each input has its own cost. Thus, input levels determine FSP SAE.

The question then becomes: What determines inputs? The case framework suggests that some types of cases require more inputs than others, so FSP SAE is determined by the composition of the caseload, the inputs per case by type of case, and the allocation of costs for each type of case between the FSP and other programs. The task framework adds that the input per case by case type is determined which tasks are performed and the quantity of inputs per task.

Each of these decompositions is merely a description. The individual terms are the result of explicit and implicit policy, management, and budget choices. Exhibit 2.1 attempts to summarize our understanding of determinants of FSP SAE graphically. Specifically, determinants of FSP SAE occur at several different levels. At the bottom level, we have the five terms called out in the "Task Decomposition".

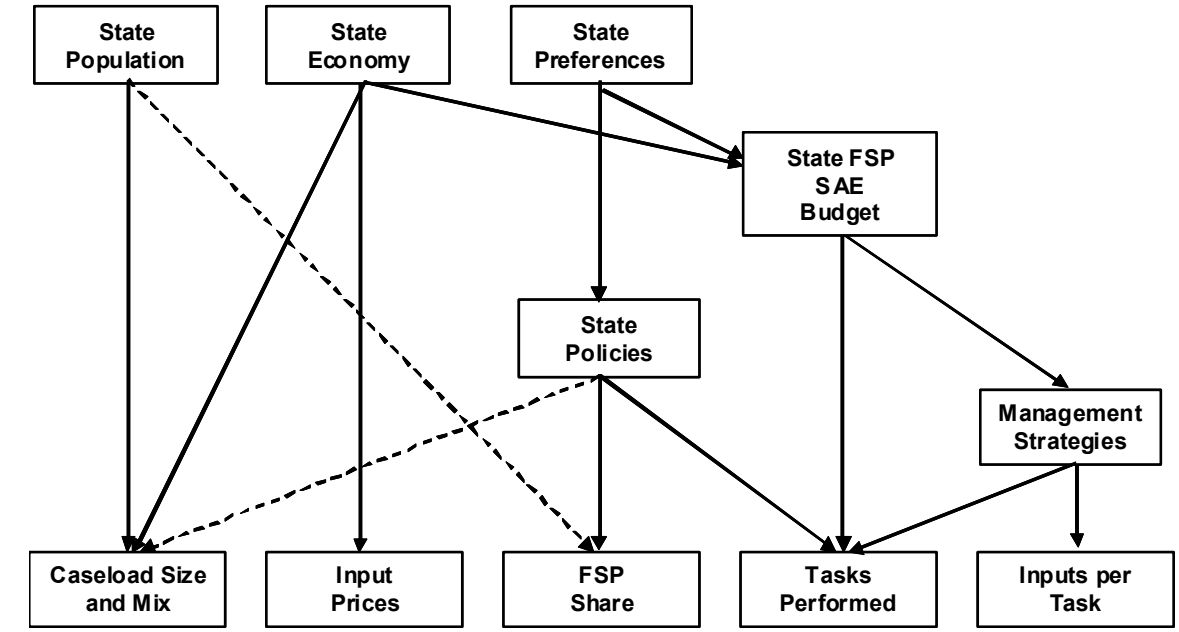
We have already labeled "Input Prices" and "Caseload Size and Mix" as "uncontrollables". They are primarily determined by the local population and the local economy.

Within the framework of Federal rules, the FSP share of costs is affected by both State policies and State population. State policies determine the FSP share of costs expended on a case or task involving a given *combination of programs* (e.g. 1/3 of costs to the FSP for FS/TANF/Medicaid cases). Current cost allocation policies appear to be similar across States, particularly for costs of eligibility workers and other direct-service workers (see the discussion in Appendix A). State policies also determine the extent to which workers *jointly administer* the FSP and other programs; if a case receives food stamp benefits and TANF, the State may choose to have different workers administer these benefits, and thus the cost of certification would not be shared. Finally, the overall FSP share also depends on the proportion of cases with each combination of the FSP and other programs. We depict this as a minor effect of the characteristics of the State population (hence the dotted line).

At the middle level of the diagram, we have already noted that State policies directly affect which tasks are performed (e.g., semi-annual reporting reduces the frequency of household status reports). The literature on the FSP caseload suggests that State policies have a moderate effect on the caseload and its composition (e.g., semi-annual reporting raises the FSP caseload; short certification periods and State TANF time limits lower the FSP caseload). (See Burstein et al., 2008; Cody et al., 2007;

Exhibit 2.1

Determinants of Components of Variation in SAE



Ratcliffe et al., 2008.) We consider this effect to be minor and therefore draw it with a dotted line. Management strategies also affect the resources used for each task; these include agency organization, design of processes, and standards for how tasks are performed. Recent innovations in management include Web-based applications, use of community partners to provide sites for submitting applications, and call centers to process case changes (GAO, 2007).

Ultimately, each of these choices is determined by a State's preferences as expressed in the political environment. State preferences directly determine State policies. States allocate their own funds for FSP administration; these are matched by Federal funds. The FSP SAE budget is determined by the interplay of State fiscal capacity, other demands on the State government, the perceived value of expenditures on the State's poorer population, and the level of performance that the State seeks to attain. Based on their budgets, State FSP administrators choose input levels and management strategies.[16] These choices, together with the composition and volatility of the caseload, determine certification accuracy and service levels. Lower budgets yield lower input levels, less accuracy, and less service; e.g., less outreach, longer wait times, less help in filling out applications.

While not shown in the model, Federal policies also affect which tasks are performed and how they are performed. Changes in these policies may affect variation in SAE over time and the relative difficulty of tasks for different case types. For example, the restrictions on eligibility for noncitizens enacted in PRWORA added to the workload for certifying households with noncitizen members, while the later relaxation of these restrictions had the opposite effect. We focus on State policies, since they vary across States, and our primary focus is on explaining interstate variation in SAE.

In the conceptual framework, the levels interact. States may choose policies that reduce the number of tasks that must be performed. However, a task-saving policy change (such as simplified reporting) will not directly affect total FSP SAE unless the staffing level is cut at the same time. Thus, at least in the short run, what we observe is not the full potential savings of the change, but the savings realized by the agency when it implements the change. Ideally, the State would monitor and adjust staffing levels in response to opportunities for savings and demand for increased staffing (e.g., raising staffing levels as error rates rise or as time to process applications exceeds the regulatory requirement). In reality, such adjustments are difficult to make in the short run; State managers interviewed for this study indicated that their staffing levels tend to remain fixed within a budget period (either one or two years, depending on State practices). Thus, changes in staffing will tend to occur with long lags—if at all.

[16] It may be argued that State FSP SAE costs affect policy choices: a State with high costs might change policies to reduce effort, e.g., lengthening certification periods. If policy choices were endogenous, then estimates of the impacts of the policies on costs might be biased. However, we do not believe it is necessary or appropriate to view policy choices as directly affected by short-term variations in State budget conditions. We do not observe policies fluctuating in response to changes in costs. Instead, States appear to retain effort-saving policies, such as expanded categorical eligibility, once these policies are adopted. Therefore, we instead focus on the role of State preferences in determining policies. These preferences may include a general desire to reduce spending, whether costs are high or not. We frame the choice of management strategies as driven by the State budget, not actual costs, because the budget reflects other considerations besides past costs. We acknowledge that budgets affect the implementation of policies through tasks actually performed. Ideally, the possibility that policies are endogenous would be considered in models of SAE. In the absence of an experimental design, addressing this possibility would require a method such as instrumental variables (IV). The challenges of this approach are discussed in Chapter Three.

The other direction of change is also crucial. Consider what happens when caseloads rise within a State's budget cycle. Without a change, FSP SAE per case will fall. The State may respond by adopting policies that reduce the number of tasks, in order to spread the existing staff over more cases. In extreme cases, there may be a supplementary budget—to return FSP SAE per case to some acceptable level. Given that caseloads often rise because the economy got worse, the State might instead cut total FSP SAE (and therefore cut per-case FSP SAE even more).

Practically speaking, State FSP organizations continue to operate at almost any funding level—and we observe widely varying funding levels across States and through time. It is crucial to ask, what happens? How do high FSP SAE States differ from low FSP SAE States; assuming—as seems plausible—that the difference is not merely in uncontrollables (input prices and case mix). It seems likely that somewhere there is some difference in tasks actually performed. That difference in tasks is partially observable. We can observe events that are recorded in case files: initial certifications, interim changes, periodic reports, recertifications, and closures. We can observe the time to process initial applications and certification error rates for initial certifications, recertifications, and ongoing cases (case maintenance). However, it seems likely that much of the difference in tasks is not observed. We do not observe specific outreach activities, answering phone calls, help on applications, reviewing matches with third-party data sources, or screening of clients who do not apply. We do not observe all of the delays and inconveniences that applicants and participants experience as eligibility worker caseloads rise.

In as much as a future study of SAE finds differences in controllables, it seems likely that some of that difference is in task frequency and quality. Some of these differences can be observed, while others cannot. Only by collecting data and conducting analysis can we determine how much of the difference can be explained with the tasks that can be observed. The data collection will also provide insight in the kinds of tasks that are not observed, or the level of detail that is missing. This insight will help interpret the significance of the unexplained variation; for example, the unobserved tasks may be "nice but not essential", and the policy implication would be that costs could be reduced by shifting high-cost States to the pattern of tasks performed by the low-cost States. We are not assured in advance, however, that the amount of explained variation will be sufficient to lead to such clear interpretation.

Implications of the Model

We conclude this chapter with a brief discussion of its implications for the study of FSP SAE. We argued in the first chapter that any study of FSP SAE should have two complementary goals. First, such a study should try to decompose observed variation in FSP SAE. Second, such a study should try to understand the influence of certain specific factors—particularly policies—on FSP SAE.

Decomposing Observed Variation

With respect to the first goal—decomposing observed variation, we have argued that Equation 2.6 provides an ideal—but unattainable—goal for the decomposition. Ideally, we would like to understand the separate contributions of variation in (a) case mix, (b) input prices, (c) tasks performed, and (d) resources per task. Ideally, we would perform such a decomposition using a form of a "shift-share" analysis. Specifically, if we knew all of the terms in Equation 2.6, we could ask: How much variation would be left if every State faced the same case mix or input prices or tasks

performed or resources per task. The resulting decrease in variation in FSP SAE would give us a measure of the importance of each source of variation in explaining overall variation in FSP SAE.

Furthermore, we argued in Chapter 1 that understanding the importance of each source of variation would be insightful for determining whether observed variation in FSP SAE represents a potential for cost savings. In as much as FSP SAE varies because of uncontrollables—input prices and case mix—there seems to be little scope for cost savings. On the other hand, in as much as FSP SAE varies because of tasks performed or resources per task, there is more scope for cost savings. States could be encouraged (or required) to limit the tasks they perform or to adopt more efficient methods for performing tasks.

Much of the balance of this report is devoted to specifying feasible approaches to such a decomposition of overall variation in SAE. We will argue that with plausible (though not unassailable) assumptions and data obtainable at moderate cost, it is possible to identify the separate effects of the uncontrollables: input prices and case mix. Progress towards decomposing controllables into effects on tasks performed and resources per task appears to be more difficult but feasible. We suggest some partial approaches.

Understanding the Role of Specific Factors

With respect to the second goal—understanding the role of specific factors, we have argued that Equation 2.6 provides an ideal—but unattainable—goal for the decomposition. We will argue in the next chapter that two complementary approaches are possible. One approach is "reduced form". It simply specifies a reduced form regression of total FSP SAE on the factors of interest (e.g., input prices, case mix, specific policies, local political and budgetary conditions).

The alternative is a "structural" approach that attempts to specify an empirical model in a system of equations that simplifies but approximates the conceptual model developed here. One such path is to seek to measure and model the cost components identified in the three decompositions of SAE. Instead of modeling aggregate FSP SAE, we might model the costs of individual inputs charged to the FSP—labor, rent, overhead, other. In Chapter 3, we will argue that that the structure of State data is likely to preclude such an "accounting decomposition" approach, but one key input in particular could be measured and modeled: eligibility worker time. Similarly, one might model total costs attributed to a case type or to a task. It appears impossible to obtain a direct measure of total costs at the case or task level, but partial approaches appear possible.

Second, we might try to proxy for some of the terms in Equation 2.6. Even if we cannot directly measure cost by case-type or cost by task, we argue in Chapter 3 that it might be possible to construct proxies for the effect of variation in case-type or tasks performed. To be exactly true, those approaches require heroic and clearly incorrect assumptions. However, modeling aggregate data using reduced form approaches also requires heroic (but usually implicit) assumptions. We suggest that such proxies are likely lead to insightful analyses. We develop these ideas in the next chapter. We also note that pursuing the structural approach does not preclude the reduced-form approach; indeed the most robust study would use both.

Beyond this reduced-form/structural distinction, our discussion of the determinants of FSP SAE suggests some caution in interpreting estimates of the effects of the determinants of FSP SAE. States directly control FSP SAE through their budget process. One therefore needs to think carefully about

how, for example, policy changes affect FSP SAE. Suppose a State adopts a task-saving policy (e.g., semi-annual reporting). That change might have no direct effect on FSP SAE. The eligibility workers are still on the payroll. They might spend the same time to do fewer tasks—i.e., their productivity would drop, but this change might be a shift to a more sustainable level with less turnover and burnout. Alternatively, they might do more of other tasks (e.g., more time helping applicants to complete their application, more accurate initial certifications, more timely processing of initial applications). On the other hand, while the total payroll remains the same, FSP SAE could decrease if workers might spend less time on the FSP and more time on other programs. The challenge of sorting through these possible effects is that our ability to conceptualize them exceeds our potential to measure them. How we cope with this challenge is a theme of the remaining chapters of this report.

Chapter 3

Possible Analysis Strategies

The previous chapter described a conceptual model of FSP SAE and its determinants. This chapter begins by showing how we could estimate that model if we had "ideal data" (i.e., inputs for each task, where the task and the case were identified). Such ideal data exist only sporadically, not for all years for all States. The second section discusses how we could estimate models using the aggregate data that are reported directly to FNS and included in the FNS National Data Bank, and the drawbacks of this approach. The core of this chapter asks what could we do if we had slightly more data. As we discuss in Chapter 4, there are some State-year data on case mix and tasks performed; and for some States and years, we can get closer to ideal data (time per case type, and perhaps time per case type by some broad classification of tasks). The third section sketches some approaches to using such information in alternative and probably insightful generalizations of the basic aggregate State time series model. The final section discusses causation and approaches to estimating the causal effect of factors.

How Would We Proceed with Ideal Cost Data?

Suppose that we had case-task level cost data corresponding to Equation 2.6; i.e., observations/ measures of

(i) Frequency of tasks per case for each case type, π_g (e.g., the number of certifications of working cases)—ideally with tasks differentiated by what is done and the level of performance;

(ii) Input quantities by task and case type, ϕ (e.g., eligibility worker hours per certification of a working case);

(iii) Input prices, p (e.g., total annual compensation for a class of worker);

(iv) Cost allocation shares (proportion of costs charged to the FSP) by case type, task, and input, σ; and

(v) Case mix (percentage of cases by type), (n_g, which for each case type g equals N_g/N).

With this type of data, a shift-share explanation of interstate variation in FSP SAE would be straightforward. Recall Equation 2.6, in which g denotes case types, k denotes inputs, and τ denotes tasks:

$$(2.6) \qquad UNIT\_FSP\_SAE = \sum_{g=1}^{G} n_g \left\{ \sum_{k} \left\{ \sum_{\tau} \overline{\sigma}_{k,g,\tau} \overline{p}_k \overline{\pi}_{g,\tau} \overline{\phi}_{k,g,\tau} \right\} \right\}$$

A shift share analysis of the effect of interstate variation in case mix might proceed by comparing observed UNIT_FSP_SAE to projected UNIT_FSP_SAE if every State had the national average case mix (denoted with a tilde "~"), but we allowed everything else to vary:

$$(3.1) \quad UNIT\_FSP\_SAE_{avg\_casemix} = \sum_{g=1}^{G} \tilde{n}_g \left\{ \sum_k \left\{ \sum_\tau \tilde{\sigma}_{k,g,\tau} \bar{p}_k \bar{\pi}_{g,\tau} \bar{\phi}_{k,g,\tau} \right\} \right\}$$

Note that for this part of the analysis, we also set the FSP share of costs (σ) to the national average, because this parameter is affected by the case mix as well as by State cost allocation rules.

Similarly, we could set each of the other parameters in (3.1) to the national average, allow everything else to vary, and compare the projected UNIT_FSP_SAE to the observed value, to understand the effect of interstate variation in each parameter:

$$(3.2) \quad UNIT\_FSP\_SAE_{avg\_prices} = \sum_{g=1}^{G} n_g \left\{ \sum_k \left\{ \sum_\tau \bar{\sigma}_{k,g,\tau} \tilde{p}_k \bar{\pi}_{g,\tau} \bar{\phi}_{k,g,\tau} \right\} \right\}$$

$$(3.3) \quad UNIT\_FSP\_SAE_{avg\_tasks} = \sum_{g=1}^{G} n_g \left\{ \sum_k \left\{ \sum_\tau \bar{\sigma}_{k,g,\tau} \bar{p}_k \tilde{\pi}_{g,\tau} \bar{\phi}_{k,g,\tau} \right\} \right\}$$

$$(3.4) \quad UNIT\_FSP\_SAE_{avg\_inputs} = \sum_{g=1}^{G} n_g \left\{ \sum_k \left\{ \sum_\tau \bar{\sigma}_{k,g,\tau} \bar{p}_k \bar{\pi}_{g,\tau} \tilde{\phi}_{k,g,\tau} \right\} \right\}$$

The variation in SAE holding a factor fixed relative to the total variation in SAE gives a measure of the "share of observed variation in FSP SAE explained" by each factor. Thus, for example, the share of variation explained by input prices would be:

$$(3.5) \quad Share_{prices} = 1 - \frac{Var\left[UNIT\_FSP\_SAE_{avg\_prices}\right]}{Var\left[UNIT\_FSP\_SAE\right]}$$

where the variance is taken across States in a given year.

Given ideal data, an analysis of this form would address the question: What are the contributions of variation in case mix, input prices, tasks performed, and inputs per task to variation in FSP SAE between States?

We are ultimately interested in the effect of specific features that affect these factors; e.g.:

- Policies: Simplified reporting may reduce the number of recertifications. Expanded categorical eligibility may reduce the time to complete an initial certification, because less documentation is needed.
- Managerial Strategies: County operated offices may be more costly than State operated offices because of additional layers of management. Use of call centers or Internet applications may reduce worker time to process applications or recertifications.
- Fiscal Capacity: Poorer States (in a fiscal capacity sense) may provide less outreach and less help with applications.
- Political Climate: More liberal States may provide more outreach and more help with applications.

- Population Density: Rural States may use more inputs per case if there are economies of scale in operating local offices, or if travel time is required for some tasks.

To investigate the effects of such State differences, we could proceed in one of two ways.

First, we could relate normalized costs that assigned the same values of uncontrollables to every State to the factors of interest—simplified reporting, input prices, State fiscal capacity, State political climate. A natural definition of normalized costs would be:

$$(3.6) \quad UNIT\_FSP\_SAE_{normalized} = \sum_{g=1}^{G} \tilde{n}_g \left\{ \sum_{k} \left\{ \sum_{\tau} \tilde{\sigma}_{k,g,\tau} \tilde{p}_k \bar{\pi}_{g,\tau} \bar{\phi}_{k,g,\tau} \right\} \right\}$$

i.e., recomputing costs holding the uncontrollables—case mix, FSP share, and input prices—at their national average values, but allowing the other terms—tasks per case (of a given type) and inputs used per case—to vary. These regressions would give a summary measure of the effect of the factors of interest.

Second, in as much as a factor mattered in these regressions on normalized costs, we might then ask: Why does the factor matter? Is it through differences in inputs per task? Or is it through differences in tasks performed? Overall? Or for a specific subset of the caseload? To address this secondary question, we would then run linear regressions on the disaggregated terms; i.e., we could run regressions with tasks performed per case or resources used per task on the same factors we had in the regression of normalized costs.

Reduced Form Models of Aggregate Data

Lacking such ideal data, the natural approach is a reduced form regression model of aggregate FSP SAE on controllables and uncontrollables:

$$(3.7) \quad UNIT\_FSP\_SAE_{s,t} = \beta_0 + X_{1,s,t}\beta_1 + X_{2,s,t}\beta_2 + X_{3,s,t}\beta_3 + \mu_s + \lambda_t + \varepsilon_{s,t}$$

where: UNIT_FSP_SAE is the cost per case in State *s*, in period (year) *t* (thus the *s* and *t* subscripts).[17]

β_0 represents the constant term

X_1 is a vector of factors of interest (policies, management practices, fiscal capacity, and political climate),

X_2 is a vector of proxies for case mix,

X_3 is a vector of input prices,

μ is a vector of fixed effects for each State,

λ is a vector of fixed effects for each year, and

ε is the residual.

[17] A conventional specification would probably take the log of the dependent variable, but that detail is not crucial for this discussion.

The fixed effects for each State and time period are included as in standard difference-in-differences (DD) methods (e.g., Meyer, 1995, see later in this chapter).[18]

This model will also allow us to partition observed variation into components due to case mix and components due to input prices; and we could then compute normalized costs. In principle, this model will also allow us to compute the effect of the factors of interest. This formulation assumes that we cannot observe tasks, and therefore we cannot partition normalized costs into variation in which tasks are done and variation in inputs used to perform each task. Later in this chapter we discuss an approach that would proxy for task frequency and allow us to separate these components of variation in SAE.

The model in Eqn. 3.7 has three major problems. First, even in this simple reduced form model, it is unclear where we will get some of the independent variables for all States and years, particularly input prices other than wages, policies, and management strategies. We return to this question in Chapter 8.

Second, we are short of degrees of freedom. The available time series is short: as discussed in Chapter 5, while there are in principle 18 years or more, only 9 or 10 years are comparable to current conditions. There are 51 States (including the District of Columbia), but the difference-in-difference methods hat an analyst is likely to use only exploits variation within a State over time. Our expectation is that variation across States is much greater than within-variation over time. Furthermore, the number of policies and management practices we would like to include in the regressions is large.

In our ideal model, we observe each of the terms—case mix, input prices, tasks performed, inputs used per task—directly. Therefore, we do not need to include regressors to proxy for them. Here, since we do not observe the terms separately, we use up degrees of freedom controlling for input prices and case mix. As we add regressors for uncontrollables, we lose degrees of freedom and therefore our ability to precisely estimate the effect of controllables decreases.

Third, the simple linear functional form is untenable. For example, the price of an input will become more important as a State uses more of that input. Moreover, the effects of State choices, particularly policies, may vary by case type or task. Policies that apply only (or primarily) to working cases are likely to have larger effects in States with more working cases. With disaggregated data, we could directly estimate cost (or frequency of tasks or quantity of inputs) by case type as a function of policies. With only aggregate data, the only possible approach is to interact policies with case mix—for example certification period lengths by case type with proportions of case types. Doing so will use up even more degrees of freedom. Even then, any such differential effect by case type is likely to be obscured in aggregate data. Below, we discuss disaggregated models that would use data that might be feasible to obtain.

The structure of expense data in the FNS National Data Bank makes the limitations of the aggregate time series approach somewhat less severe. As we discuss in detail in Chapter 5, the SF-269 form requires States to report costs by very broad functions, including certification, issuance, data

[18] The residual is likely to be heteroscedastic and auto-correlated, but those details do not matter for our discussion here.

processing, fraud control, employment and training, and nutrition education. To the extent that these individual functions are of interest and consistently defined, we could run the aggregate regressions separately for each task. As stated in Chapter 1, we have assumed that the primary interest is in certification costs. The appropriate set of regressors for a given function will be smaller in number than the regressors for a model of total SAE. Nevertheless, a complete model of certification costs similar to Equation 3.7 would entail a large—potentially overwhelming—array of variables. We return to the feasibility of this approach in Chapter 4.

Alternative Disaggregated Models

The modeling question is then: Is there some way to use data that are available or obtainable (at reasonable cost) to address these problems with the aggregate time series regressions and thereby to get closer to the ideal task decomposition model? This section considers four such approaches. The first approach exploits separate estimates of cost by type of input. The second approach explains how to exploit information on costs by case type. The third approach suggests a way to use more limited information on costs by case type. The fourth approach offers a way to approximate costs by task. Thus, in terms of the levels of disaggregation in Chapter 2, the first approach disaggregates costs at the input level, the second and third at the case level, and the fourth at the task level.

Simplified Models to Decompose Aggregate Cost

The ideal model assumed cost data for each type of input. Even if that information is not available, it seems plausible that we might be able to get data on variations in the most important cost component, compensation for eligibility workers, because of the information States must gather to allocate local office costs among program. (The nature of this information is discussed in Chapter 5.) This suggests a model with two inputs: eligibility workers and "everything else".[19] All factors other than eligibility worker labor could be treated as a generalized "overhead", proportional to eligibility worker cost. This approach is similar in spirit to cost allocation rules, which allow States to allocate all local agency costs—including eligibility workers, support staff, supervisors, and non-labor costs—and some State agency costs by program in proportion to eligibility worker time or cost.[20] Our model is then:

$$(3.8) \qquad UNIT\_FSP\_SAE^{s,t} = \left\{\alpha^{s,t} p_1^{s,t} w^{s,t}\right\}$$

where p_1 is the hourly eligibility worker wage, w is the ratio of FSP eligibility worker time to cases (a measure of staffing intensity equal the inverse of FSP eligibility worker caseload), and α is the overhead markup factor (i.e., the ratio of overhead costs to total eligibility worker pay). The FSP eligibility worker time per case (w) incorporates the FSP share factor for this input (σ). As discussed

[19] As discussed later in the report, the definition of an eligibility worker is subject to variation. For this discussion, an eligibility worker is one who obtains eligibility information from clients or makes determinations of eligibility and benefits based on information collected by others.

[20] One can, of course, identify specific costs for which this assumption may not be appropriate: for example, the cost of application forms would be a function of the number of cases, not eligibility worker time or cost. Analysis of the composition of overhead, as discussed in the text, would indicate whether the principal components of overhead are reasonably related to eligibility worker hours.

below, this time could be modeled as a function of policies (including cost allocation rules) and case mix.

This model would greatly oversimplify SAE if it were applied to the total cost for all FSP functions. It is particularly simplistic to treat as "overhead" client services that are not performed by eligibility workers, including issuance, nutrition education, outreach, and employment and training. Instead, this approach is more suited to analysis focused on a specific function, particularly certification and related costs (which might include data processing). The issue of the definition of "certification" for analysis of SAE is discussed in Chapter 5.

This "eligibility worker plus overhead" model is potentially implementable with available State-level data. In principle, we could collect information from State cost allocation records and payrolls on the eligibility worker cost charged to the FSP and the average compensation of these workers. We then could use these data to compute the number of eligibility worker hours per case charged to the FSP (or this information might be available directly). We know SAE per case, so we can compute the generalized overhead rate, α by simple division. If we had these data, we could then use Equation 3.7 to begin to understand the sources of variation in SAE across States.

From a model of this form, one could address the questions of interest, using the components of variation in cost. First, we could compute the proportion of variation in SAE attributable to each of the three components of the model: eligibility worker wages, eligibility worker time per case, and "everything else". Second, we could explore the determinants of these components in separate models. For example, we could analyze the relationship of eligibility worker pay to one or more specific benchmark occupations in the private sector, such as claims processors for insurance companies, or to the broad occupational group that includes eligibility workers. A State's relative pay level for the benchmark occupation(s) (i.e., State average divided by national average) would predict its relative pay for eligibility workers if eligibility worker pay were determined by the same segment of the labor market as the benchmark occupations.[21] Such benchmarks could be used to compute a quality-adjusted measure of eligibility worker time (with the assumption that eligibility workers paid more than the State market rate would require fewer hours per case).[22] Policy variables and case mix would enter in the model of eligibility worker time per case. Management and fiscal variables would enter into both the eligibility worker time per case and overhead. For example, the eligibility worker model might include whether workers specialize in the FSP or serve multiple programs. State versus county administration would be a variable in the model of overhead.

As an additional step in the analysis, it may be feasible to collect additional data allowing the decomposition of "overhead" costs between other local staff, local nonlabor costs (such as rent), and

[21] This approach does not require the assumption that the pay for the benchmark occupation would be equal to the eligibility worker pay set on a purely market basis, only that the relative pay differential would be the same.

[22] The model of eligibility worker pay versus the benchmark could be a simple univariate relationship, or other factors such as economic trends and union strength could be considered. The latter approach would provide more insight into the reasons for eligibility worker pay differentials (e.g., workers accept lower pay for public jobs when private employment is more volatile). In computing the quality-adjusted measure of eligibility worker time, there would be a question of whether to assume that higher pay in the presence of unions would result in better workers, or whether this reflects market power on the part of the existing work force.

State costs. We could then determine the contribution of each element to cost variation and separately model differences in (a) ratio of other local staff costs (or time) to eligibility workers, (b) input prices of local nonlabor costs, such as rent, (c) ratio of normalized local nonlabor costs (using average input prices) to total local staff time, and (d) ratio of State costs to local costs.

Note, however, that this approach continues to deal with caseload heterogeneity via regressors that are part of models with potentially numerous policy and management variables. Below we suggest ways to avoid this limitation by further disaggregating SAE, either by case type or by task.

Separate Models of Costs by Case Type

The preceding approach to disaggregating costs by modeling aggregate data (3.6) ignores the effect of differences in cost by case type, which might be possible to measure. Most States use random-moment time studies (RMTS) as the basis for allocating eligibility worker costs across programs.[23] These studies collect data on the type of case being served by randomly selected workers at randomly selected moments. It may be possible to attribute the actions in these random moment time study data to specific types of food stamp cases, through the extant data or through matching to case records (using the case number, which is sometimes collected in these data). If we had data on worker moments by FSP case type, we could estimate the proportion of costs by case type, using the distribution of eligibility worker time to apportion total costs (implicitly incorporating other costs as overhead). Then we could run separate aggregate regressions of total cost or eligibility worker time per case for each case type. Given this stratification, we would not need to include proxies for case mix. It seems plausible that the structure of costs would be more similar across States within a case type than for aggregate costs (even with case mix proxies).[24]

An Index Approach to Caseload Heterogeneity

Alternatively, if such RMTS data matched to case characteristics were available for some States and years, we could use them to estimate the models of the previous sub-section. Such data are clearly not available or even recoverable for all States back very many years (see the discussion below in Chapter 5). Given that reality and given that difference-of-difference models benefit from long time-series and many States, a natural question becomes: Can we devise some way to use insights about "case difficulty" from States and years where we have the richer data in our analysis of States and years for which we do not have the richer data (i.e., the full 17 plus year time series of State data).

Our approach follows from the hypothesis that some cases are "harder" (more difficult, more resource intensive) than others. We would expect that working cases are harder; earnings and therefore the correct benefit change frequently. Cases with more people and more adults require more initial verification and are likely to change membership more often. Joint TANF cases have their FSP SAE costs split with TANF, so the FSP SAE attributed cost is smaller.

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[23] For a description of random-moment time studies, see Appendix B.

[24] One might try to model the costs of labor, data processing, and other inputs in separate models. This approach would assume that inputs are independent of each other, an assumption that is questionable, as previously discussed in the section on aggregate modeling. Moreover, the approaches already discussed separate eligibility worker labor—which we understand to be the largest input—from other costs.

For example cases with earnings might, on average, require 2.3 times as many eligibility worker hours per month as cases without earnings. One could then assume that this ratio is constant across all States for the time period under study.[25] A benchmark case type would be defined (e.g., two children and a nonworking, nonelderly adult), and this case type would have a difficulty factor of 1. We then define a measure of "intensity" that represents the actual eligibility worker time per case (across all case types) adjusted for the average difficulty of the caseload. The intensity measure varies by State and over time. A State with a 5 percent greater intensity measure than the average State would spend 5 percent more eligibility worker time per case if it had the average case mix. A State with higher "intensity" is one where FSP administration is more "eligibility worker intensive". Thus, this approach also offers a way to relate States' use of resources to their performance when performance is not an element of the definition of a task. Whether a State with higher intensity than the average State is less productive depends on the State's error rate and other measures of effectiveness, after controlling for other factors that may affect their use of resources.

It seems plausible that such variation in difficult exists and that it is roughly similar across States and time.[26] If so, then the following strategy seems promising:

1. Estimate the relative difficulty in States where we have RMTS data linked to case records; i.e., estimate average (cost weighted) eligibility worker hours by case type.
2. Normalize by some case type (e.g., two adults and two children).
3. Then use those factors and aggregate data on case mix to extrapolate to the other States and years.

Formally, we might proceed as follows. We begin with the "eligibility worker and overhead model" (i.e., Equation 3.8), which defines SAE per case as the product of the "overhead" ratio (α), the eligibility worker pay rate (p), and the eligibility worker time per case (w). We recognize that the average eligibility worker hours per case will vary by case type. Therefore, we modify 3.8 to express eligibility worker time per case as the weighted average of eligibility worker hours per case for each case type, where the weights are the shares of each case type in the caseload:

$$UNIT\_FSP\_SAE^{s,t} = \left\{ \alpha^{s,t} p^{s,t} \sum_{g} n_g^{s,t} \theta_g \eta^{s,t} \right\} \tag{3.9}$$

where: n_g is the fraction of the caseload of type g, varying by State and time,
θ_g is a "difficulty factor" that varies by case type (g) but not by State, and
$\eta^{s,t}$ is a State-specific "intensity factor" (worker hours per standard case) that varies by State (s) and over time (t) but not by case type.

[25] A variant of this approach would be to assign to each State the ratio from the most similar State(s) for which data were obtained, if there were a single dimension that was considered sufficiently important.

[26] It seems unlikely that the relative difficulty of cases is identical across States and time. For example some policies differentially affect certain case types. States may use automation or specialization to reduce the difficulty of particular kinds of cases (e.g., creating specialized units of bilingual workers to serve clients with limited English, instead of using translators).

Note that $\theta_g \eta^{s,t}$ approximates the eligibility worker time per case by case type ($w_g^{s,t}$), which we cannot measure directly for all States and years. In (3.9), η is equal to w normalized for case mix, i.e. for a "standard case". The FSP share is parsed into two factors: the standard share of costs for each case type goes into the difficulty factor, while State-specific variations go into the intensity factor. For example, the usual FSP share for a FSP/TANF/Medicaid case would be 1/3, but in a State where Medicaid eligibility is administered separately, the FSP share would be ½, and so the intensity would be greater. As in 3.8, the overhead, α, is assumed to be invariant to group. (This seems reasonable because the mix of resources is likely the same across groups.)

Again, this model is potentially implementable. We could compute a "price" of eligibility worker time, *p*, and an overhead rate, α, from State expenditure information.[27] Then, we could do some detailed data collection (e.g., a modified random-moment time study in a sample of States or collection of extant data from States with particularly detailed time-use data) to derive the "difficulty factors", θ_g.

Given the difficulty factors, caseloads, and overall average eligibility worker time per case, we can then estimate intensity factors that are chosen by the States, η, for each State and period. We would then run simple regressions for these intensity factors and the overhead rates. For example, are intensity and overhead higher or lower in States with county operated FSP, or in States with high or low population density?[28] The difficulty factors would capture the effects of cost-sharing at the case level (i.e., lower difficulty factors for FS/TANF and FS/Medicaid cases versus pure FS cases, if case types were defined this way). Overhead might be affected by cost-sharing at the agency level. Note that—given the functional form assumptions—we have already directly controlled for input prices (at least wages) and case mix, so we do not need to use up degrees of freedom on these possible determinants of relative costs.

This approach offers a way to investigate the relative efficiency of States and the relationship of costs to State performance. In principle, a State is more efficient than others if it achieves the same level of performance under comparable conditions (including case mix and input prices) at less expense. Using Equation 3.9, one could determine whether States that use more worker time per case have a more "difficult to serve" caseload. Standardizing on case mix, those States might be just as efficient, or at least they would have the same level of intensity.

Intensity alone, however, is not a valid indicator of efficiency, because it does not take into account the results of the effort. If two States are equally efficient, one would expect the States with higher "intensity" to have higher performance; relevant indicators include certification accuracy, timeliness of application processing, and the Program Access Index (PAI).[29] Conversely, if two States have the same level of "intensity" and one has higher performance, that State is more productive.

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[27] Using a market wage rate for a comparable occupation, or the average for a group of comparable occupations, in place of p would yield a quality-adjusted measure of time per case, as discussed above.

[28] In principle, rural versus urban could be a dimension of case type, but in practice this would add considerably to the effort for computing the distribution by case type for each State-year. Unless the case data had an urban-rural indicator, it would have to be constructed from location information.

[29] The Program Access Index is the ratio of food stamp participants to low-income persons, with certain adjustments, as computed by FNS formula. This index is used to determine which States receive bonuses for the highest level of program access and the most improvement in program access. (FNS, 2006).

One could examine the relationship of the intensity factor (η) to measures of performance.[30] A regression model of this relationship would thus predict the expected intensity associated with a given combination of performance measures. State residuals (actual versus expected intensity) would thus be indicators of efficiency (inputs to produce a given set of results) above or below the average. State characteristics that might be associated with efficiency could be included in the model, or one could analyze the relationship of State characteristics to the residuals from a simple model of intensity versus performance.

With additional data, this approach could be generalized to other resources that are expected to vary in "difficulty" (i.e., average inputs per case vary by case type), such as data processing. Costs would be disaggregated into two or more specific factors with known prices, with the remainder treated as overhead. A version of Equation 3.9 would be applied to each factor. This might be a way to incorporate data processing costs without making the assumption that they are directly proportional to eligibility worker costs.

A challenge for the "difficulty" factor model (3.9) is to incorporate the relationship of policy choices (e.g., quarterly reporting versus semi-annual reporting) to the difficulty factor. The choice of reporting system is likely to affect the difference in "difficulty" between working and non-working cases, for example, because working cases are often subject to different reporting systems from non-working cases. The difficulty factors for case types would be estimated under one or more policy regimes, depending on the time and State where the data were collected. Generalizing from the average of these data points implicitly treats the mix of policy regimes as the standard. Thus, using (3.9), differences in policy would contribute to the variation in the "intensity" factor, which is time and State-specific. Thus, it would be preferable if models of variation in "intensity" would vary with the policy context. If there is concern about collinearity between policies and other variables (such as unionization), the "difficulty" data collection could be structured to allow a more direct association of policies with difficulty. For example, the sample of States for collecting "difficulty" data could be stratified by key policy variables (such as reporting system or State versus county administration). This would require more data points and increase the cost of the study.

Another approach is to collect data to decompose "difficulty" for each case type into two parts: the frequency of key tasks per case and the time per task. This would allow the use of task frequency data (potentially less costly to obtain or available from case records) from a larger sample or all States to adjust the difficulty measure so that it fits in a standard policy regime. Such an approach is discussed in the following section.

A Simplified Model Focused on Task Frequency by Case Type

The previous sections consider using additional information by input or case type. Another alternative is to use additional information by task. The full task decomposition model (2.6) can be simplified by assuming that the quantity of each input per case varies by case type for only three reasons:

[30] Putting intensity on the left-hand side does not imply causation, it merely allows the estimation of multiple relationships among correlated variables.

- The frequency (π) of each task (τ) varies by case type (g);
- The quantity of each input per task (ϕ) varies by task (τ)) but not by case type;
- The FSP share of each input (σ) varies by case type but not by task.

Under these assumptions, the total quantity per case of an input for a case type is the sum of the products of the units per task and the frequency of the task, and the cost per case for a case type is the sum of the products of the total units and the cost per unit across inputs.

This approach makes the key assumption that the average time per task does not vary by case type. The FNS certification cost study (Hamilton et al., 1989) found some case characteristics that were significantly associated with the time per task, but the effects were very small and explained little of the overall variation in certification time per case. That study did estimate that the proportion of food stamp cases receiving public assistance had a substantial effect on certification costs, due to the sharing of costs (which was labeled the "cost allocation effect").[31] Thus, this assumption does not appear problematic, as long as the cost allocation effect is taken into account.

Making the further simplifying assumption that the input of interest is eligibility worker time and all other inputs are treated as overhead (as in 3.8), we arrive at the following formulas for SAE per case:

$$(3.8) \quad UNIT\_FSP\_SAE^{s,t} = \left\{\alpha^{s,t} p_1^{s,t} w^{s,t}\right\}$$

$$(3.10) \quad w^{s,t} = \sum_g n_g \sigma_g^{s,t} \sum_\tau \pi_{g,\tau}^{s.t} \phi_\tau^{s,t}$$

Thus, SAE per case is a function of overhead, eligibility worker pay, and eligibility worker time per case (as in the simple model of "eligibility worker cost and everything else"). Eligibility worker time per case is a function of case mix, FSP cost share, task frequency by task and case type, and time per task by task. Thus, task frequency and time per task take the place of difficulty and intensity in (3.9).

This approach requires the data to estimate (3.8), plus data on the frequency of tasks by case type, the eligibility worker time per task by task, the case mix, and the FSP share of eligibility worker time by case type. These data requirements are less demanding than those of the full accounting model in two crucial ways. First, the time per task is more likely to be available from existing sources, such as the regular RMTS or a special time-and-motion study. If these data are not already available, they would be far less costly and burdensome to collect, because the sample size required is a small fraction of the sample needed to estimate time by task and case type. Second, the FSP share by case type need only be determined for eligibility workers, not for every input. Furthermore, the FSP share for a case

[31] In a study for FNS, Hamilton et al. (1989) estimated the uncontrollable variation in certification costs. They conducted time studies in four States and linked them to case records. The resulting data allowed them to estimate the average time to perform certification tasks for different case types and the frequency of those tasks by case type. They then combined these estimates of average time per task and task frequency by case type with national quality control (QC) sample data to estimate the proportion of variation in certification costs that could be explained by caseload heterogeneity and economic conditions. MaCurdy and Marrufo (2006) used a smaller time study in one State to estimate time per task factors in a microsimulation model of low-income households that estimated the impact of certification policy changes on benefit outlays and administrative costs.

type can be determined from the applicable cost allocation rules and the percentages of cases of that type with FS-only, FS/TANF/Medicaid, and other combinations of programs.[32] Case data can be readily used to compute these percentages; the FSP share can be determined without any computations if case types are defined solely by program combination. The requirement for the frequency of tasks by case type can also be met with case data. It is important to note, however, that case data for each year and State in the analysis would have to be analyzed.

With this model, one could partition the variation in eligibility worker time per case into the effects of case mix, task frequency, and time per task. One could further analyze differences in task frequency by case type to determine the effects of economic conditions (e.g., unemployment rate or change in unemployment rate) and policies (e.g., certification periods). Combining these analyses would allow an estimate of how much variation is due to uncontrollables and how much is due to controllables. Case mix could be treated as uncontrollable, or it could also be modeled as a function of economic conditions and policies.

State differences in time per task could be analyzed in different ways. The simplest approach would be to compare this measure for each task, to determine overall average, the degree of variation and the ranking of the States. This would provide insights into the most time-consuming tasks and might suggest opportunities to reduce costs through policy changes or technical assistance (based on the average time per task or the range). For example, if the time spent on initial applications is a large element of overall eligibility worker time, and there are large differences in this time across States, it might be worthwhile to investigate differences in practices with respect to the format of the application, the organization of the process (e.g., specialized intake workers), automation, and worker training. More general comparisons could be made by computing each State's average time per case using the average case mix and task frequency. This normalized time per case would give more emphasis to the tasks that require more time.

Comparing each State's normalized time per case to the average would provide a measure of the intensity of the State's effort devoted to FSP administration, similar to the intensity measure in Equation 3.9. Thus, Equation 3.10 also could provide the basis for a regression analysis of the relationship of intensity to certification accuracy, timeliness, and the Program Access Index. As discussed in the previous section, this analysis could be used to identify States with high or low efficiency, based on State residuals (actual versus expected intensity).

A particularly interesting feature of this model (3.10) is that, with several years of data, it could allow the investigation of what happens when an economic downturn increases client-driven FSP tasks (applications, changes in employment and earnings, etc.), while reducing State revenues and thus the funds available for FSP administration. Descriptive analysis of SAE has revealed that the cost per case tends to fall as the FSP caseload rises (Logan, Kling, and Rhodes, 2008). Do States reduce the frequency of agency-driven tasks (such as recertifications and periodic reports) in response to tighter budgets? Do they reduce the time per task, overall or for specific tasks? Do they freeze wages or cut overhead? Of note, this line of analysis fits particularly well with the budget perspective. The notion that time per task is adjusted in response to the agency's budget suggests, in turn, that political factors

[32] This calculation could use a standard FSP share for each program combination, or it could use actual State policies as specified in the cost allocation plan.

could affect time per task or task frequency, as well as worker pay, and thus might be included in models of these variables.

This approach, like the approach in Equation 3.9, offers a way to investigate the relative efficiency of States and the relationship of costs to State performance. In choosing between these approaches, there is a trade-off between the richness of the potential findings and the data requirements. Equation 3.10 parses differences in case mix, task frequency and time per task, and leads to an intensity measure in subsequent analysis. Equation 3.9 provides a direct measure of intensity but does not parse the differences in task frequency and time per task across States, instead assuming a norm for the relative effort for each case type. Thus, Equation 3.10 would provide more information to identify the sources of variation in overall time per case; at the same time, it would require data on task frequency from all States, whereas this information could be collected in a sample of States to estimate Equation 3.9.

More General Models

The previous sub-sections have described how we might proceed with various approaches to using available data. Those approaches include (i) using data that distinguishes between eligibility worker costs and other costs through an "overhead" construct; (ii) using cost data disaggregated by case type; and (iii) using limited detailed data on costs per case-type to estimate "difficulty factors" and assuming functional forms that allow exact aggregation. Clearly there is an interplay between methods and data. Given a particular data configuration, creatively combining elements of these approaches and others like them will yield an empirical strategy that exploits the available data to extract the maximum amount of information and insight into the causes of variation in SAE, while making the weakest possible assumptions.

It is important to note that the approaches of the previous sub-sections make strong assumptions about functional forms. With additional data, we could relax these assumptions and explore additional issues. For example, treating local office management as overhead assumes that it is proportional to eligibility worker time, and there are no fixed costs of operating a local office. If we want to explore the possibility of fixed costs, we need to model the relationship of eligibility worker costs to total local office costs.

Causation

The previous discussion focused on a descriptive analysis of the sources of cost variation. A complementary goal is to understand the effects of a specific policy choice on costs. For example, we might want to know the effects of semi-annual (simplified) reporting (or some other policy) or data processing investments (or some other administrative practice) on total SAE per case.

In modeling policy effects, the challenge is to separate them from the effects of State characteristics that are related to the policy choice. For example, States may be more likely to adopt semi-annual reporting (instead of monthly or quarterly reporting) if they have high levels of SAE per case for reasons unrelated to this policy, or if they need to reduce staff workloads during periods of caseload growth or hiring freezes. In a State-level regression model of SAE as a function of reporting policy and other factors, one of two problems may arise. First, if reporting policy is highly correlated (collinear) with another specified factor (e.g., the percentage of cases with earnings), the standard errors of the coefficients will be high and neither variable will appear to have a significant effect. The

collinearity issue is particularly important given the large number of policy variations and the likelihood that they are correlated. Second, if reporting policy is correlated with an unobserved factor that is also associated with SAE (such as a high priority on assuring program access), a simple cross-sectional regression may overestimate the effect of reporting policy on SAE.

Conventional regression approaches will only estimate the causal effects of interest when there are no omitted variables that are both correlated with the included regressors and directly with the outcome. Since in general, we expect unobserved State characteristics (such as a generally favorable or unfavorable attitude of voters toward income support programs) to affect both State policy choices and SAE, it seems unlikely that simple regressions will identify the causal effects of interest. With large enough samples, we might be able to proxy for the unobserved State characteristics. However, we only have 51 States, so we are extremely limited in the richness of the controls.

There are four broad approaches to estimating causal effects.

A) The gold standard is random assignment. When feasible and properly implemented, random assignment yields convincing evidence of the effect of what is randomized on the outputs measured. However, neither random assignment, nor its close variants (e.g., incentive designs) seems feasible for this problem. It is hard to imagine a state legislature and a state Food Stamp Agency agreeing to let some aspect of its operation (and its budget) be determined by the functional equivalent of a coin toss.

B) When random assignment is not feasible, Instrumental Variables (IV) is often an attractive alternative. Key to IV methods is the existence of an instrument that affects costs only because it affects some specific policy choice. Often the instrument is something truly random about the process (e.g., a draft lottery number). IV requires one instrument for each policy. We have many policies, so we would need many instruments. As is often true with such policy evaluation problems, no "instruments" are apparent. It is possible that for some narrow aspect of FSP SAE some clever strategy will yield some instrument. Future studies could continue the search for such instruments. As of now, we have not identified even one.

C) At the other extreme, we have simple cross-sectional regressions. The problem with simple regressions is that to estimate causal effects, the analyst needs to include enough proxies for the determinants of FSP SAE ("everything but the kitchen sink") that it is plausible that there are no omitted variables that both affect FSP SAE and its determinants. In general, it is not feasible to include a sufficient set of proxies to meet this standard.

D) Finally, we have "fixed effects" or difference-in-differences regressions (DD). DoD regressions proceed on the assumption that "fixed effects" (i.e., dummy variables) for state and year control for enough of the omitted variables that the remaining regressions can be interpreted as causal. See Meyer (1995) for a formal discussion. This DoD assumption is the conventional one in omnibus policy regressions such as we want to run for FSP SAE. This condition will be violated whenever there are time varying factors that both affect the policy and the outcome directly (not through the policy), and those time varying factors are not controlled for through included covariates. These conditions are rarely satisfied exactly, but when the policy change has a large effect on the outcome (here FSP SAE), DD is a viable approach. DD becomes more robust with better time-varying covariates. Standard and feasible covariates include proxies for the local economy (the State-specific unemployment rate), State-specific time trends, and indicators of the political environment (e.g.,

Republican or Democratic Governor). In the context of our conceptual model, State fiscal conditions would be another desirable covariate, as budget constraints might influence policy choices and SAE.

Fixed Effects

Applying the fixed effects or DD approach would exploit the structure of SAE data (as reported by States to FNS) as a time series of cross-sectional (panel) data. We can use annual State SAE totals as the dependent variable in a regression with fixed State effects (i.e., a dummy variable for each State). It should be possible to date changes in policies, using the State Food Stamp Policy Database (Finegold et al., 2008) and similar resources. By including fixed State effects, we eliminate any omitted variables that are (approximately) time-invariant (e.g., State- versus county-operated appears to be stable over time, and automation appears to change slowly).

The fixed State effects method as described above has several important strengths. It is relatively straightforward to allow for errors that are not independent and identically distributed (e.g., serial correlation and heteroscedasticity), for non-binary outcomes (e.g., how much money a State spent on its computer system), multiple policies in the same model, differing timing of program adoption, and lagged effects (such as the possible effect of past error rates on current SAE). Standard software is available to implement this approach in panel data.

Logan, Kling, and Rhodes (2008) estimated fixed State effects models of error rates as a function of certification effort, case mix, and policies. They used Census estimates of wages for public welfare workers to normalize the effort measure for differences in factor costs (but not for differences in actual versus market wages). They included the fraction of welfare cases and working cases to proxy for case mix, and certification periods and welfare reform as key policy measures. Over the entire study period, the results imply that an increase of 10 percent in normalized certification cost per case ("effort") would reduce a weighted sum of case error rates by 0.3 percentage points (relative to a mean of 15.1 percent), at an annual cost of just over $35 per household. This effect of effort on error was significantly smaller between 1997 and 2002, when States were implementing welfare reform. Increased use of short certification periods (1 to 3 months) between 1992 and 2000 reduced the error measure by 1.5 percentage points. They also estimated that the adoption of simplified reporting, simplified definition of income, and transitional benefits for TANF leavers reduced the error measure by 4.4 percentage points in 2005. These findings were consistent across model specifications, including controls for autocorrelated error term and dynamic models using lags of the dependent variable.

The fixed State effects estimated by a model can be regressed on a set of stable State characteristics to estimate their effects. The main fixed effects model would not be able to estimate the effect of population density, for example, because it does not vary much within State over time (with some exceptions). But fixed State effects might be higher in urban States than in rural States, and this difference would further contribute to the explanation of variation. An example of this type of approach is found in the study of social welfare spending by Lewin and Rockefeller (2004). Models of fixed State effects lack controls for omitted variables correlated with regressors and SAE, so this method is better suited to investigating obviously exogenous factors that are stable over time.

Summary

In this chapter, we first presented an ideal but infeasible cost modeling approach. We next presented a model of aggregate data that would use available national databases. This model is likely to have significant estimation problems but could be a useful starting point; we present it as Option 1 in Chapter 4. We then identified several potentially feasible alternatives that appear to make plausible assumptions while avoiding excessive data requirements and major estimation problems. These alternatives, respectively focusing on the input, case, and task levels, are summarized below.

- **Simplified three-part model, disaggregating cost variation between wages, generalized overhead, and eligibility worker time per case** (equation 3.8), with a second stage of regressing time per case on case mix. We expand on this approach as Option 2 in Chapter 4.
- **Separate models of cost by case type**, potentially using extant time studies. Option 3 in Chapter 4 would use this approach.
- **Index approach to case mix effects** based on (a) "difficulty" factors estimated in a sample of States and (b) State-specific "intensity" factors, which can be modeled as a function of State characteristics (3.9), as described in more detail under Option 4 in Chapter 4.
- **Approach based on task frequency by case type, eligibility worker time per case by task, and case mix** to decompose the sources of variation in eligibility worker time per case (3.10). This is the basis for Option 5 in Chapter 4.

Any of these approaches could lead to models using variables representing one or more parts of the conceptual model: State population characteristics, State economic conditions, State preferences, budget constraints, policies, and management choices. A natural strategy is to explore a variety of specifications, balancing the desire to avoid omitted variables with the need to avoid overcomplicating the models. Empirical analysis can help answer the question of emphasis among the parts of the conceptual model.

These models vary in the data collection efforts required to implement them. In general, the better the data, the weaker the assumptions that are needed and the greater the ability of the model to answer policy questions. A crucial issue going forward for USDA is therefore how various data might be obtained.

The next chapter outlines alternative research designs. The discussion combines the approaches above with more specific data collection strategies, in order to highlight the potential differences in feasibility and value among the approaches.

Chapter 4

Potential Study Designs

The previous chapter has described several potentially implementable approaches to analyzing variation in State administrative expenses (SAE) for the FSP. In this chapter, we discuss potential study designs for implementing these approaches. Each of these designs is based on one of the approaches developed in Chapter 3. In Chapter 4, we identify the potential data sources, including existing national databases, extant data in State Agency records, and primary data collection via surveys or other methods.

The feasibility of the designs in this chapter depends on the availability and quality of the requisite data. For data that do not currently reside in a national database, the question of availability includes the technical feasibility, costs, and respondent burden of collecting the data—from existing databases or from scratch. For extant data, issues include quality control, consistency of measurement, available time period, and effort to retrieve the data (for the contractor and the State). For new data, cost and burden are the major feasibility issues. These issues are addressed in Part II of this report.

This chapter begins with a study design option using currently available data, thus requiring no data collection. As part of this discussion of this option, we identify the extant "core" data that also could be used in other designs. We then describe other options requiring data collection from existing State records, new primary data collection, or both. For each option, we carefully consider required data. The chapter concludes with a brief discussion of complementary research approaches.

Option 1: Modeling Available State-Level Data

We begin with the simplest possible model from both a data and a methods perspective. That model would use the available time-series of aggregate State level on FSP SAE and caseloads to create State-year per case FSP SAE. This per case FSP SAE would be regressed on uncontrollables—input prices (wages, benefits, etc.) and the share of cases by type (case mix)—and other factors. The "other factors" might include other uncontrollables such as economic, political, and social conditions, as well as controllable policy variables, and other State choices. This is the specification of Equation 3.7. Use of available longitudinal data would allow the estimation of time-series models with State fixed effects (Meyer, 1995). In a second step, the estimated fixed effects could then be taken as dependent variables in a regression model to identify the influence of long-run differences among the States (economies of scale, urban/rural, political climate, etc.; e.g., MaCurdy, 1981).

This model is clearly estimable. The data are readily available. The methods are standard. The results are likely to be insightful, particularly with respect to the "big picture" of the major types of factors affecting SAE. As was emphasized in Chapter 3, this model is insufficient to fulfill the objectives for analysis of SAE. First, the number of potential explanatory variables is large and the amount of variation (especially after the inclusion of State fixed effects) is small. Thus, the effects of these variables will be difficult to detect with sufficient confidence. Second, this specification does not exploit what we know about the structure of costs (i.e., the accounting relations developed in Chapter 3).

Statistical Methods

The natural statistical method to apply here is linear regression, with the log of FSP SAE as the dependent variable. Such a log specification is consistent with the multiplicative form of Equation 3.8, but not with the summation and multiplication form of the ideal model, Equation 2.6. Given the availability of time-series data for each State and an interest in estimating the causal effect of each factor, difference-of-different models which include fixed effects for each State and year are an attractive specification (Meyer, 1995). Careful consideration must be given to the specification of the variance-covariance structure of the residuals to take account of the varying size of the States and the time series nature of the data. Logan, Kling, and Rhodes (2008) discuss the issues, implement several approaches, and discuss the sensitivity of estimates and standard errors to these issues.

The specific approaches to consider might include: (i) A two-part approach, first estimating a model of uncontrollables and then more exploratory modeling of the residuals or normalized costs as a function of controllables. In such an exploratory analysis, the number of controllables could be reduced by selecting those most highly correlated with the dependent variable, or by constructing factors representing groups of correlated variables. (ii) A multi-level trend analysis, controlling for case mix and input prices, and then grouping States according to estimated intercepts (high/low overall SAE) and trends (rising/declining SAE) for exploratory analysis of similarities within groups and differences between groups.

The data for this option include (a) aggregate State-level SAE data, and (b) explanatory variables for analysis of cost variation. We briefly identify the categories and sources of these data below. The origins of the data and potential issues with their use are discussed in Part II.

Aggregate State-Level SAE Data

The most readily available cost data for a study of FSP SAE are the expenditures of the States reported to FNS on the SF-269. On that form, these expenditures are broken down between Federal and nonfederal outlays, and by FSP function. (See the description of the reporting process in Appendix B.) The FNS National Data Bank (NDB) has these data for at least the last 18 years (1989-2006). They have already been used for descriptive analysis and modeling of error rates. These data permit modeling of States' total expenditures for each of the functions, or for any combination of functions. The costs for the certification function may be a primary interest, because these costs represent three-fifths of all SAE.

Key feasibility issues for using these data are:

- Are expenses defined and measured consistently, across States and over time?
- Are important expenses systematically omitted because they are not eligible for Federal reimbursement?
- What categories of expenditures should be used, based on theoretical interest and actual reporting practices?

In this report, we assume that the primary conceptual category of interest is certification cost. As discussed in Chapter 5, in practice the measure of certification cost would include the certification

reporting category and other categories that appear to consist primarily of costs related to certification.

Explanatory Variables

As discussed in the preceding chapter, the potential variables for explaining variation in SAE include case counts by type (case mix), FSP task and performance data, input prices, economic and fiscal conditions, political conditions, and FSP policy and management choices.

For each of these categories of explanatory variables, Exhibit 4.1 identifies more specific measures of interest and the potential sources of data for the 50 States (and other entities equivalent to States in the FSP, such as the District of Columbia). All of the sources are public and available free of charge (except for the ACCRA cost of living index, which is available for purchase), and most have long time series (annual data back a decade or more). Chapter 8 describes the sources of the explanatory variables and the feasibility issues for using them in the potential study options.

Overview of Additional Data Requirements for Other Approaches

Option 1 only required existing and easily accessible data. Other options require data collection efforts. Exhibit 4.2 summarizes the options, identified by the Feasibility Study, their data requirements in addition to the core data, and the potential sources and methods for collecting the additional data. Each of the options is based on one of the more general analytic approaches presented in Chapter 3. The order of the options parallels the order of the approaches in Chapter 3. The discussion that follows focuses on defining the data requirements. The analytic issues were discussed in Chapter 3. The analytic and data issues, and the conclusions about the feasibility of the options, are synthesized in Chapter 9.

Exhibit 4.1

Explanatory Data Elements for Models of State Administrative Expenses for the FSP

Data Elements	National Data Sources
Case counts, task frequency, and performance data:	
State case counts by type	Quality Control (QC) public use microdata (many dimensions for defining case types) FNS-388 data (participants and households, by public assistance status)
Frequency of tasks (overall, by case type)	FNS-366B data (counts of initial certifications, denials, recertifications, terminations, and reinstatements—by public assistance status) QC public use microdata (certification and recertification—many dimensions for case types)
Performance indicators (accuracy, timeliness, access)	FNS QC reports (payment and negative action errors) QC public use microdata (payment errors and timeliness)[a] FNS Program Access Index tabulations
Input prices:	
Public welfare or income maintenance worker pay	Annual Survey of Governments Employment payroll data (FTEs and pay by job class) Occupational Employment Statistics (specific occupations, by State) National Compensation Survey (average hourly pay and benefits, national averages for State and local government workers)
Comparable private sector wages and benefits	Occupational Employment Statistics (specific occupations, by State) Quarterly Census of Employment and Wages (for county-level average weekly pay) National Compensation Survey (average hourly pay and benefits, by Census region and division)
Cost of living index	CPI (regional by population size, area indexes) ACCRA cost of living index (city level)
Price indexes for inputs other than labor	CPI components (regional by population size, area indexes) American Community Survey (State median housing costs as a proxy for office rent) HUD Fair Market Rents (State or county levels as a proxy for office rent) Studley Effective Rent Index and related commercial real estate reports (selected central cities and suburban areas)
Economic and Fiscal Conditions:	
Unemployment, employment, and labor force participation rates Poverty rate	Local Area Unemployment Statistics Current Population Survey reports
Per capita income	Bureau of Economic Affairs reports
Per capita revenues and expenses	Annual Survey of Government Finances/Census of State and Local Governments

Exhibit 4.1 (continued)

Explanatory Data Elements for Models of State Administrative Expenses for the FSP

Data Elements	National Data Sources
Economic and Fiscal Conditions—continued:	
Expenditure need, fiscal capacity, and expenditure effort	Analytic studies (Yilmaz et al., 2006)
Political Conditions:	
Political party of governor Political party of legislative majority	National Governor's Association, National Conference of State Legislatures
Unionization of work force	Current Population Survey
FSP and welfare policies and procedures:	
FSP rules	State Food Stamp Policy Database FNS State Food Stamp Program Options Reports
Welfare (TANF) rules and benefits	Welfare Rules Database Department of Health and Human Services reports
FSP procedures and operating characteristics	Food Stamp Program Access Study Food Stamp Program Modernization Study Other one-time surveys

[a] Timeliness is indicated in QC raw data files, beginning in FY2003. Timeliness rates for earlier years are available in FNS-366B data. See Chapter 8 for discussion of the quality of these sources of timeliness data.

Exhibit 4.2

Research Options, Data Requirements, and Potential Data Sources

Option	Data Requirements	Data Collection Options
1. Modeling available State-level data	"Core data": annual SAE, caseload composition, input prices, economic conditions, political conditions, policy choices	Extant FNS or public databases
(Options 2 through 5 require the core data for Option 1. Additional data requirements and collection options are identified below.)		
2. Modeling eligibility worker time per case, generalized overhead, and pay rate	State-level total eligibility worker cost and number of full-time equivalents (FTEs) Breakdown of non-eligibility worker costs (if analysis of the composition of overhead is desired)	Survey of States (or) Data abstraction from State records
3. Modeling eligibility worker time by case type, generalized overhead, and pay rate	Option 2 data plus: Eligibility worker time percentage by case type	Additional data from all States: RMTS[a] or personnel activity reports[b] with detailed case type or case number (or) Time study (or) Worker survey
4. Modeling difficulty and intensity factors by case type, generalized overhead, and pay rate	Option 2 data plus: Standard difficulty factor by case type (ratio of time per case to benchmark or overall average)	Additional data from subset of States: RMTS or personnel activity reports with detailed case type or case number (or) Time study (or) Worker survey
5. Modeling time per task, task frequency by case type, generalized overhead, and pay rate	Option 2 data plus: Time per task by task, frequency of task by case type National Averages approach estimates time per task by task by modeling time per case as a function of task frequency; no measurement of time per task required	Additional data from all or subset of States: For time per task: RMTS or personnel activity reports with task code or case number (or) Time study (or) Worker survey For frequency of key tasks by case type: Extant FNS statistics (FNS-366B)[c], (or) Quality Control sample microdata, (or) Case records

[a] RMTS=Random Moment Time Study.

[b] As discussed in Appendix B, some States require eligibility workers to complete personnel activity reports as the basis for allocating their time between the FSP and other programs. A personnel activity report is a log of every case that the worker serves, compiled continuously.

[c] See discussion of Option 5 for explanation of the FNS-366B report.

Option 2: Analysis of Overhead and Eligibility Worker Time per Case

Based on Equation 3.8, variation in SAE per case can be divided into three components: eligibility worker time per case, eligibility worker pay (or a market equivalent), and generalized overhead (computed as the ratio of total costs to eligibility worker costs). Estimates from a model of this form could be used to estimate the proportion of variation that can be attributed to each of these components, by holding two components at mean values and estimating the variance in the predicted cost based on actual variation in the remaining component.

Each component can be modeled separately. Eligibility worker time per case can be modeled as a function of case characteristics and economic, political, and policy variables. Overhead can be modeled as a function of economic, political, and management variables. If data were sufficiently detailed, overhead would be further broken down between the local and State levels or on other dimensions, to determine what portion of overhead varies the most and to facilitate more focused models. Models of eligibility worker pay would focus on economic and political conditions. Eligibility worker experience might also be a factor in modeling both time per case and pay.

Other than the core data, this model requires the decomposition of SAE into eligibility worker costs and other costs. There are several options for estimating eligibility worker costs.

- States may have FSP eligibility worker costs as a separate line item or cost center in their computation of total SAE.
- The total eligibility worker cost for all programs may be a line item in the local office cost allocation pool. (See Appendix B for explanation of cost allocation pools.) The FSP's percentage of this pool (typically based on eligibility worker time distribution) can be applied to the total eligibility worker cost to estimate the FSP cost for eligibility workers alone.
- Time use data for eligibility workers from time sheets or random moment studies can be used to determine the total eligibility worker time for the FSP. The average pay can be used to estimate the cost of this time.

For any of these options, some proxy for average eligibility worker pay is needed. For the first two options, average pay per eligibility worker hour can be computed as the ratio of total pay to eligibility workers to the number of eligibility worker hours assigned to the FSP. These hours could be adjusted for pay differentials from the market by using a pay rate for a comparable occupation or broader occupational group.

There are two possible approaches for collecting information on eligibility worker time and pay. One approach would be to request existing documentation from the States. The other approach is to provide standard definitions of the measures and request that the States provide estimates. Both of these approaches could be implemented via mail, the Web, or a combination of these approaches with telephone follow-up. The feasibility of these approaches is addressed in Chapter 6.

A key issue to be considered in this approach is obtaining consistency in the definition of "eligibility worker" costs and pay. Job classifications may vary across States; so may the actual practice regarding the types of workers that conduct certification interviews and make determinations of

eligibility and benefits. Inconsistencies in the definition of eligibility worker costs could distort or conceal the actual differences among States. This issue is addressed in Chapter 6.

Another issue is whether to expand the data collection so that the "overhead" can be decomposed for analysis. A logical breakdown would be between local office labor (excluding eligibility workers), other local office costs, and State costs. This approach would allow use of different wage or price indexes to analyze variation in components of overhead. For example, variation in total overhead would be modeled with a general cost index, such as the CPI or the ACCRA cost of living index (as referenced in Exhibit 4.1). If the data are sufficiently detailed that rent is broken out, an index of real estate costs can be used for modeling variation across States. (We have not identified a public index of commercial real estate costs computed at the State level. Instead, we have identified the indexes in Exhibit 4.1, which are based on housing costs and should reflect the same underlying economic forces that affect commercial real estate costs, at least in terms of major differences among States.) The feasibility of collecting data on the composition of overhead is discussed in Chapter 7.

Option 3: Analysis of Cost by Case Type

This option would decompose costs as in Option 2, and then break down eligibility worker time by type of case, using dimensions such as the presence of earnings or public assistance. Modeling the average time per case separately by case type would eliminate the need to include proxies for case mix as regressors in the models, conserving degrees of freedom. Instead, the models would focus on economic, demographic, political and policy variables. As in Option 2, overhead and eligibility worker pay would be broken out and modeled separately. Anticipating our discussion of Option 4 directly below, we emphasize that for Option 3 we envision collecting this information for every State for multiple years.

Obtaining cost data by case type for eligibility workers would provide a richer base for analyzing variation in SAE than Options 1 and 2, but this option requires data that may not be easy to obtain. The required cost data are: eligibility worker time by case type, average eligibility worker pay, and total SAE. The time data could be collected from extant sources or by conducting a time-use study.

In some States, personnel activity reports or random moment study data may indicate the eligibility worker time by case type. (This information might be in the form of a percentage, in which case the total eligibility worker time would be needed.) In particular, these sources tend to differentiate time by program or program combination, as needed for cost allocation. On the other hand, data collected for this Feasibility Study suggest that other dimensions of case heterogeneity (e.g., presence of earnings) are not identified in routinely collected data on eligibility worker time use, as discussed in Chapter Six. In addition, detailed time use data are not routinely collected for FSP-only eligibility workers, because there is no need to allocate their time by program.

There is another option for using extant data to obtain a breakdown of time by case type for all workers in a State. Personnel activity reports and random-moment time study data often include a case number for each instance of work recorded. This number could be matched to case records to assign a case type to the observation. The time use data could then be tabulated by case type, with adjustment for non-case time (breaks, meetings, etc.). An issue with using existing time studies is obtaining data on the mix of case types for FSP-only eligibility workers (as noted above).

Several methods might be used to generate new data on eligibility worker time use by case type when extant sources are insufficient. These include (a) modifying existing time studies to include a case type indicator, (b) "job tickets" on which workers record all time spent on specified cases; (c) "event logs" recording each task with the case type and time spent for a designated period (as done by Hamilton et al., 1989); or (d) worker surveys (also used by Hamilton et al., 1989).

The key feasibility issues for Option 3 are:

- How should case types be defined, and what does this imply for the approach—in terms of the data collection burden and in terms of the gain in analytic insight?
- Do most or all States collect data on eligibility worker time by case type? If so, what case types are identified? And, how far back is the information available?
- Do most or all States collect case numbers as part of the data on eligibility worker time use? Is it feasible in practice to merge time use records with case records?
- Are all of the data collected on eligibility worker time use entered in electronic files? How long are these files retained? Ideally, extant data could be collected for several years for time-series analysis.
- Are extant data on eligibility worker time by case type comparable across States? What is the extent of error in these data?
- Is new data collection on eligibility worker time by case type in all States feasible, considering the sample size needed, burden on workers and administrators, potential for error, and cost of collecting the data?

As discussed in Chapter 6, there are significant challenges to the feasibility of Option 3. The discussion there suggests that data for the likely case types of interest (e.g., working single parent with children) exist in few States at most, and collecting such data in all States would be prohibitively costly and burdensome. By far the most feasible approach is to collect extant data on eligibility worker time by program combination. Even that minimal approach appears likely to be constrained by record retention and burden considerations. The next two sections of this chapter suggest alternative approaches that would disaggregate eligibility worker time with data that appear more feasible to obtain.

Option 4: Analysis of Overhead, Difficulty, and Intensity by Case Type

Given that detailed data on costs by case type seem unlikely to be available for most States and years, how might we proceed? Equation 3.9 provides a starting point. We note that aggregate-level data on case mix (for various definitions of case type) appears to be available for all States and all years. If we knew the relative difficulty of each case type (and that difficulty was constant across States and years), then we could replace the proxies for case mix in our reducted form models with a single difficulty index. Total inputs per case would then be the product of this difficulty index and a proxy for intensity; i.e., resources per standardized case. By replacing the proxy variables for case mix with a single difficulty index, this approach would conserve degrees of freedom and increase the precision of the estimates of other factors.

The challenge is then to construct the difficulty index. Discussion later in this report suggests that the quality of State data varies widely. It seems likely that in a subset of States and years, it will be possible to estimate resources by case type. This information can be used to construct a difficulty index. The difficulty index thus provides a way to exploit the data in the States and years with the best data for analysis of the full time series of States and years.

Having controlled for case mix using the difficulty index, separate regression models would attempt to explain variation in overhead, intensity, and pay. This decomposition can be used to determine the proportion of variation due to differences in case mix and pay (largely uncontrollables, albeit with some secondary effects from State choices) and overhead and intensity (mostly or largely due to controllables). As described in Chapter 3, normalized costs (setting difficulty and pay to national averages) could be used to investigate the relative efficiency of States and the relationship of costs to State performance.

The data requirements for Option 4 are the same as for Option 2, plus the data for the difficulty index. The difficulty index by case type ideally would be computed from data on eligibility worker time per case by case type. The difference between Options 3 and 4 is that Option 3 assumes collection of time by case type for all States for the study time period, while Option 4 would collect this information from a sample of States and possibly a subset of study years. If collecting worker time by case type along the lines of Option 3 would require a new time study in most States (as seems to be true), then Option 4 leverages existing data on time by case type from States that can provide it, and then generalizes that information to all States.

There are four basic data collection methods that might be used in a sample of States for Option 4:

- Existing data on eligibility worker time by case type could be obtained from States that collect the data in random-moment time studies or personnel activity reports.
- Existing random-moment time studies or personnel activity reports could be modified to include case type codes for observed moments.
- Data from random-moment time studies or personnel activity reports with case numbers could be merged with case records to identify the case type for each observation.
- A new time study could be conducted with a sample of workers in each State, using one of the methods listed under Option 3. Conducting such studies in a sample of States would be considerably more feasible than doing so in all States.

The feasibility issues for data collection under Option 4 are similar to those for Option 3, with the crucial difference that data would be collected only in a sample of States and years, rather than for all States and years. For existing data, the years are likely to be limited by data retention. For new data collection, the only feasible year will be the year of the study. The issues for Option 4 include:

- What are the case types of interest? How many observations for each case type are needed?
- How many States are needed? Will they be stratified so that difficulty indexes can be estimated for different types of States?
- What States have extant data that could be used? How representative are these States? How comparable are their data? What is the extent of error in these data?

- Is new data collection on eligibility worker time by case type in a sufficient number of States feasible, considering the sample size needed, burden on workers and administrators, potential for error, and cost of collecting the data?

These issues are discussed in Chapter 6.

Option 5: Analysis of Time per Task, Task Frequency, Overhead, and Pay

Option 3 and Option 4 would both simplify the ideal model of SAE by focusing on the heterogeneity in case mix and overall time per case by case type. They differ in what data they require to do so.

In contrast, Option 5 would instead simplify the ideal model of SAE by focusing on heterogeneity in task frequency across case types and States. As part of this simplification, we conceptualize tasks at a much higher level of aggregation than the ideal formulation in Equation 2.6, which defined tasks as homogeneous both in what is done and in the level of performance in the outcome. Specifically, we define the principal tasks for eligibility workers as (i) initial certification, (ii) recertification, (iii) interim changes, and (iv) routine maintenance. We begin by describing several ideal approaches and then show how they could be revised and simplified to yield feasible approaches.

Ideal Approaches

To understand Option 5 and how it relates to the other options, we first consider an approach to time measurement at the task level that would be close to ideal but clearly infeasible. This approach begins with our ideal task-level decomposition of SAE, Equation 2.6, in which *g* denotes case types, *k* denotes inputs, and τ denotes tasks:

$$(2.6) \quad UNIT\_FSP\_SAE = \sum_{g=1}^{G} n_g \left\{ \sum_{k} \left\{ \sum_{\tau} \bar{\sigma}_{k,g,\tau} \bar{p}_k \bar{\pi}_{g,\tau} \bar{\phi}_{k,g,\tau} \right\} \right\}$$

n_g , the share of the caseload for each case type *g*,

$\bar{\sigma}$, the FSP share of costs, varying here by input, case type, and task,

$\bar{p}$, the average price of each input,

$\bar{\pi}$, the average frequency of each task by case type, and

$\bar{\phi}$, the average quantity of each input per task, varying by case type and task.

If we follow the approach of Option 2, we can simplify this equation so that we have one input—eligibility worker time—and an overhead factor, α, representing all other input costs as a multiplier. Thus, the ideal task-level model of eligibility worker cost and overhead would be:

$$(4.1) \quad UNIT\_FSP\_SAE = \sum_{g=1}^{G} n_g \alpha \sum_{\tau} \bar{\sigma}_{g,\tau} \bar{p} \bar{\pi}_{g,\tau} \bar{\phi}_{g,\tau}$$

The parameters are restated as follows:

$\bar{\sigma}$, the FSP share of eligibility worker costs, varies here by case type, and task,

$\bar{p}$, the average eligibility worker wage,

$\bar{\pi}$, the average frequency of each task by case type, and

$\bar{\phi}$, the average eligibility worker time per task, varying by case type and task.

All parameters are specific to a State and time, but we omit the superscripts for clarity.

In equation 4.1, the eligibility worker cost per task charged to the FSP is computed for each task and case type, summed across tasks within each case type, weighted by the case type share of all cases and the overhead factor, then finally summed across case types to compute the overall FSP cost per case. This model defines the ideal data on eligibility worker time as the time for specific tasks for specific case types. From such data ***for all States***, we could determine both the average time per case by case type (as in Option 3) and the average time per task across case types.

In principle, such data could be collected by an expanded RMTS. Instead of recording simply the program being served, the RMTS would also record the case type and task. While such data are conceivable, they do not exist in all States, as previously discussed. Cost and burden issues suggest that collecting such data for all States in a given year would be infeasible (let alone a time-series of such data over many years).

By analogy with Option 4, a more feasible approach might be to collect data on time per task and task frequency by case type for ***a subset of States***. With such data, we might be able to implement a more robust version of Option 4. This approach proceeds from Equation 3.9, which underlies Option 4:

$$UNIT\_FSP\_SAE^{s,t} = \left\{ \alpha^{s,t} p^{s,t} \sum_{g} n_g^{s,t} \theta_g \eta^{s,t} \right\} \tag{3.9}$$

where: n_g is the fraction of the caseload of type g, varying by State and time,
θ_g is a "difficulty factor" that varies by case type (g) but not by State or time, and
$\eta^{s,t}$ is a State-specific "intensity factor" (worker hours per standard case) that varies by State (s) and over time (t) but not by case type.

With data on task frequency and time per task by case type, we could compute the difficulty factor by case type, θ_g, as follows:

$$\theta_g = \sum_{\tau} \bar{\sigma}_{g,\tau} \bar{\pi}_{g,\tau} \bar{\phi}_{g,\tau} \tag{4.2}$$

The time per task by case type (ϕ) would be averaged over the subset of States; the task frequency for each case type would be the national average (provided that we had task-frequency by case type for all States). It certainly would be worthwhile to learn whether any State has such data, but our interviews strongly suggest that existing data at this level of detail are scarce at best and in fact unlikely to exist (as we discuss below in Chapter Six).

In principle, new data collection could be designed to provide data on time by task and case type in a small number of States. One model for this type of study is the certification cost study conducted for FNS (Hamilton et al., 1989). This study was limited to four States but nevertheless entailed a very large data collection cost and burden, with hundreds of workers recording a total of over 100,000 events.

An alternative would be an expanded RMTS collecting task type and case type (or case number, allowing case type to be determined from case records). Such a study could be designed to be less intrusive than the methods used in the FNS certification cost study, while collecting data across the entire State and thus avoiding distortions due to local office conditions. The number of observations would depend on several design considerations: the number of tasks, the number of case types, the way that the data would be analyzed, and the expected level of precision of the estimates.[33]

Thus, analysis of costs by task and case type is technically feasible, and FNS could learn much from such a study. The cost and total burden on workers, however, would be high. Therefore, we present simpler and less costly approaches below.

Simplified Approaches

Relative to the ideal approaches to analyzing eligibility worker time by task, Option 5 would dramatically reduce the data requirements and simplify the analysis of eligibility worker time by assuming that time per task does not vary by case type. Following the approach of Equation 3.10, Option 5 would disaggregate the overall variation in eligibility worker time per case as charged to the FSP into four components: differences in time per task (by task only), in task frequency (for each task by case type), in FSP share of costs by case type, and in case mix.[34] Recall that Equation 3.8 decomposes FSP cost per case into overhead (α), eligibility worker pay (p) and eligibility worker time per case (w).

$$(3.8) \quad UNIT\_FSP\_SAE^{s,t} = \left\{\alpha^{s,t} p_1^{s,t} w^{s,t}\right\}$$

$$(3.10) \quad w^{s,t} = \sum_g n_g \sigma_g^{s,t} \sum_\tau \pi_{g,\tau}^{s.t} \phi_\tau^{s,t}$$

Equation 3.10 defines eligibility worker time per case as a function of case mix (n_g), FSP cost share (σ_g) by case type, task frequency by task and case type ($\pi_{g,\tau}$), and time per task varying only by task (ϕ_τ).

Under this approach, the sample required to estimate the overall average time for a task (across all case types) would be a fraction of the sample required for time per task varying by case type. In principle, this option might be implemented with existing data or with new data collection on a more modest scale than the 1989 certification cost study.

With individual data on eligibility worker time for specific tasks in all States for the years of interest, we could apply an approach analogous to Option 3. We could separately model the time for each task as a function of State characteristics other than case mix (such as whether workers who do the task

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[33] The most demanding approach, in terms of sample size, would be to estimate the mean time per task by case type, since each task-case type combination would require an adequate sample, and the total sample would be driven by the frequency of the least common combination of interest. In the approach of Hamilton et al., time per task was regressed on case characteristics, so the required sample was not as large.

[34] The time per task is the total time that the worker spends. If a case participates in the FSP and another program, the time charged to the FSP is the product of the total time and the FSP share for this case type. For simplicity, we specify the FSP share as varying only by case type, as discussed in Chapter 3.

are specialists or generalists). We could model task frequency by case type as a function of other State characteristics (unemployment rate, poverty rate, etc.). We call this the "All States" version.

Alternatively, if we only had such data for a subset of States and years, we could proceed by analogy with Option 4. First, we transform (3.10) to express the time per case as the sum of time over tasks.

$$(4.3) \qquad w^{s,t} = \sum_{\tau} \phi_{\tau}^{s,t} \sum_{g} n_g \sigma_g^{s,t} \pi_{g,\tau}^{s,t}$$

Each task has a weight based on case mix, FSP share by case type, and the frequency of the task by case type.

The analysis must take into account the fact that eligibility workers do not spend all of their time on tasks for individual cases. They attend meetings and training, do general paperwork, and carry out other non-case-specific tasks. We can account for this by defining a "task" representing the share of this non-case time attributable to the average case (and thus included in *w*); RMTS are designed to measure this time and can provide this information.

From the States and years with the best data, we could estimate the time per task for each task and treat this as a constant across States (i.e., we drop the *s* and *t* superscripts for ϕ). We call this the "Subset of States" version. Assuming information on tasks performed (at some level of aggregation), case mix, and FSP cost share were available for all States and years, we could then estimate the expected time per case for each State ($\hat{w}^{s,t}$) required to perform the tasks per case observed in a State. Then for each State we would compute a measure of intensity using the actual and expected time per case, as in (4.4):

$$(4.4) \qquad \eta^{s,t} = \frac{w^{s,t}}{\hat{w}^{s,t}}$$

Note that the States chosen do not have to represent the average time per task across States; they merely provide the basis for comparisons of effort relative to the weighted frequency of tasks. We could also estimate $\hat{w}^{s,t}$ using the average frequency of tasks by case type for all States. Combined with the other information from this approach, we could determine the share of variation in time per case attributable to heterogeneity in case mix, FSP share, task frequency, and intensity.

A less data-intensive approach to Option 5 would estimate national averages for the time per task and combine these estimates with State-level task frequency by case type. We call this the "National Averages" approach. This approach would begin with State-level estimates for eligibility worker time per case, based on the method of Option 2. No additional time use data would be needed. Instead, the national average time per task for each task would be estimated with a regression model of State estimates of eligibility worker time per case as a function of the frequency of tasks for all case types combined.[35] (Aggregating across case types would be crucial to the feasibility of estimating this model, particularly if the time per task does not in reality vary by case type.) This model would be estimated for tasks 1 through n as in (4.5).

[35] This is analogous to the production function approach to estimation of costs of school breakfasts and lunches based on numbers of meals served and school districts' total costs (see Bartlett et al., 2008).

(4.5) $$w^{s,t} = \phi_1 \pi_1^{s,t} + ... \phi_n \pi_n^{s,t} + \varepsilon^{s,t}$$

The coefficients (ϕ) estimated in (4.5) thus represent the contribution of each task to the total time per case. The linear specification is clearly appropriate: time per case is the sum of time over tasks. Note that a constant term could be added to represent a fixed cost per case for non-case-specific time. We can use the estimated average values of ϕ in 4.3 to estimate each State's eligibility worker expected time per case ($\hat{w}^{s,t}$) and its intensity (as in 4.4). As in the Subset of States version, we could also compute the expected time per case using the national average task frequency by case type. Taken together, these estimates will allow analysis of the effects of caseload composition, task frequency, and intensity on eligibility worker time per case.

There is an important benefit of decomposing time per case into the product of time per task and task frequency by case type. This allows the generalization of time per case under particular conditions to other conditions, as done by MaCurdy and Marrufo (2006). In particular, if the task frequency would be different but the time per task would not, then task frequency data can be used to estimate the time per case. Case records provide a rich source of existing task frequency data, and more limited task information is available in QC data derived from these records, whereas time per task data appear to be scarce.

Potential Estimation Approaches

There are several potential approaches to estimating time per task and task frequency. For each State, time per task could be estimated in several different ways:

- using extant data from States where RMTS or personnel activity report data include indicators for the task, or where these data could be merged with case records indicating the task performed at the time recorded
- conducting a new time study, using an expanded RMTS or event logs (i.e., recording time on every task for a period up to a month)
- a worker survey, process observation, interviews with key informants, or some combination of these "low impact" approaches with less burden on individual workers than a time study.

The choice among these alternatives would depend on (a) the availability and quality of the extant data, (b) the number of States to be included (all States or a subset, size of subset), and (c) the feasible level of cost and burden for the study. Under the National Averages approach, no additional data collection on time per task would be needed, but the estimates would be national, not State-specific.

There are four ways to estimate task frequency by case type for a State:

- combine records of individual tasks with the characteristics of the affected case from computerized case records;
- impute incidence of tasks from comparisons of case records over time, and combine this information with case type information from the case records;

- estimate the frequency of identifiable tasks by case type using Quality Control (QC) sample data for each State (which identify active cases with initial certification, recertification, and (for some years) interim actions in the sampled month); or
- use the task counts reported by the States on the FNS-366B report, which includes counts of initial applications approved, applications denied, recertifications, and terminations. These counts are broken down between households with and without public assistance.

These methods are described and assessed in Chapter 6.

The key feasibility issues for Option 5 are:

- What States have extant data that could be used? How representative are these States? How comparable are their data? What is the extent of error in these data?
- Is new data collection on eligibility worker time by task in a sufficient number of States feasible, considering the sample size needed, burden on workers and administrators, potential for error, and cost of collecting the data?
- What are the potential challenges of using State case records to estimate task frequency by case type? What does this imply for the feasibility of the State-level approach to Option 5 in all States or a sample of States?
- What is the feasibility of using the QC microdata to estimate task frequency by case type? What are the limitations of these data, and what does this imply for the analysis?
- What are the potential limitations of using the FNS-366B data to estimate task frequency by case type, and what does this imply for the analysis?

We address these issues in Chapter 6, which provides an overall assessment of the feasibility of these options. Before we do so, we consider the fundamental issue of whether SAE for the FSP as reported to FNS is sufficiently comparable across States and over time to justify the effort that these options might require.

PART II: ASSESSMENT OF DATA SOURCES FOR POTENTIAL STUDY DESIGNS

In this part of the report, we present the results of our data assessment. In Chapter 5, we consider the basic question of whether aggregate SAE, as reported to FNS, is sufficiently comparable across States to permit valid analysis using the approaches described in the previous chapters. In Chapter 6, we focus on the feasibility of collecting the data that these approaches would require on eligibility worker time, compensation, and costs. In Chapter 7, we consider the data for decomposing and modeling costs other than eligibility worker labor. Finally, in Chapter 8, we assess the sources and quality of data on potential explanatory variables for the proposed approaches. As discussed in Chapter 1, this assessment is based on interviews with Federal and State officials, and on the researchers' own experience with these data.

Chapter 5

Comparability of Aggregate Reported State Administrative Expenses

A natural approach to understanding SAE would be to use aggregate State expenses as reported to FNS. Study Option 1 is designed to use these data, which are readily available from FNS' National Data Bank. The other options would also use these data together with the States' information supporting their reported expenses. This chapter considers the comparability of reported SAE data across States and across time. One of FNS' reasons for conducting this study was to address concern about the comparability of these data and the possible implications for the feasibility of analyzing variation in SAE. The feasibility of all of the options depends on the quality of reported SAE.

To support comparative analysis, one would ideally have completely accurate—i.e., error-free—data. In this context, "error" refers to any situation in which the data used for allocation and reporting of costs do not reflect the actual use of resources. As such, the error may be random, or there may be a non-random bias. Random error would be unlikely to create consistent differences across States or over time, but it could make the true differences and their causes more difficult to detect. "Bias" refers to a persistent pattern of allocating more or less cost to a program than the share of the resources that the program actually used. The possibility of bias is a greater concern than the risk of random error, because a bias would introduce spurious differences in cost across States or over time.

Potential Errors Arising in the Allocation and Reporting of SAE

In considering the possible reasons why reported SAE might not be comparable across States and over time, it is important to consider the key elements of the reporting process. First, the State disburses money for expenses: payroll, benefits, purchases of goods and services, and interagency payments. Some of these expenses are assigned directly to the FSP or other programs; the rest go into one or more joint expense pools to be allocated among programs. Meanwhile, the State gathers data necessary to allocate the joint expenses. On a monthly or quarterly basis, the State computes the

share of joint expenses for each program, adds the directly assigned expenses, and reports the combined administrative expenses for each program to the agency providing administrative funds. For the FSP, expenses are computed separately for the functional reporting categories and then totaled.

FSP agencies allocate shared costs among their programs according to cost allocation plans. These plans consist of complex systems of cost pools (groups of related expenses allocated the same way) and rules to allocate costs. Expenses that are exclusively attributable to the FSP are directly charged in the accounting system. These include workers who exclusively serve the FSP and services charged separately for the FSP, such as benefit issuance. Shared expenses for the FSP and other programs may be allocated in proportion to measures of usage (percentage of hours, computer connect time, etc.). Finally, some shared expenses may be allocated **in proportion to usage of other resources**. This method is used for expenses for which it is infeasible or disproportionately burdensome to determine usage by the FSP and other programs.

Most notably, costs for multi-program eligibility workers and other workers with direct client contact are usually allocated on the basis of random-moment time studies (as described in Appendix A), but sometimes these workers maintain "personnel activity reports" on a continuous basis. Percentages of eligibility worker time or costs are often used to allocate costs for other local office personnel, non-personnel costs of local offices, and some State-level costs. Thus, the data and methods for allocation of eligibility worker costs are particularly important to the overall allocation of costs between the FSP and other programs.

Having accurate data for comparative analysis of SAE (as defined above) requires several conditions. States must disburse funds accurately for all allowable costs. (We have assumed that the possibility of errors in disbursements is not a concern for this study.) State and local expenses must be allocated across programs by standard and equitable rules, the data used in the allocation must be measured without error, and the computations for the allocation must be correct. Expenses must be reported by all States in the correct time periods and reporting categories.

There are several ways in which cost allocation and reporting could deviate from the ideal conditions, thus undermining the validity of comparisons of reported SAE across States:

1. Cost allocation plans could be designed in a way that, accidentally or otherwise, tends to allocate more or less costs to the FSP, relative to other plans. Such differences would make the costs less comparable than if the same plan were used.
2. Errors in data collected for cost allocation or in carrying out cost allocation algorithms could cause the actual cost allocation to diverge from the correct allocation. These errors could be unbiased (i.e., random) or biased (shifting costs from some programs to others).
3. Reporting errors or inconsistencies could result in costs reported in the wrong category.
4. Lags in the accounting process could result in costs reported for the wrong time period.

These threats to the validity of comparisons are considered in the sections that follow. We first consider the question of **what costs are to be compared** (i.e. which FSP functions are to be included) and whether they are defined and reported consistently. Although reporting is the final stage in the accounting process, these issues must be considered first in order to provide a context for the next discussion, in which we assess the threats to the validity of comparisons from differences in **how**

costs are allocated across programs. Finally, we consider issues of the **comparability of reported expenses over time**. In general, we conclude that the SAE data are sufficiently comparable across States to permit valid analysis, at least for FY1999 and later years, but that data quality issues may affect the ability to produce unequivocal results from simply analyzing aggregate SAE data, as in Option 1.

Definition and Comparability of Reported Expenses for FSP Functions

A major threat to the validity of comparisons of SAE is that differences in definition could distort comparisons of reported expenses for specific functions, such as certification. Reported SAE for the FSP includes the costs of all of the FSP functions. The functional cost categories are:[36]

- certification
- issuance
- quality control
- management evaluation
- fraud control
- automated data processing (ADP) operations and development
- fair hearings
- employment and training (E&T)
- outreach
- nutrition education (FSNE)
- reinvestment (i.e., State spending required under an agreement to defer payment of sanctions for excessive errors)
- System for Alien Verification of Eligibility (SAVE)
- unspecified other

These functions have different objectives, use different production processes, and usually are performed by different organizations. Therefore, it is appropriate to model the costs of these functions separately, provided that the functions are clearly defined and the costs can be separated.

Thus there are two issues about functional cost categories for designing studies of food stamp SAE: first, what are the **theoretical categories of interest**? and second, what are the **actual categories from State expenditure reports to be used**?

Functions of Interest for Analyzing Variation in SAE

For this report, we have assumed that certification is the most important functional category. Certification costs—as labeled in State reports—represent three-fifths of all SAE. (See Exhibit A-1 for this and other percentages of total SAE by function.) Thus, the variation in total SAE cannot be explained without explaining differences in certification costs. Certification policy is complex and gives States many options that may affect costs. For these reasons, the models discussed in this

[36] The official definitions of the SAE reporting categories are provided in Appendix B.

report focus on certification costs, particularly in their emphasis on eligibility worker costs and their specification of the roles of case mix and certification policy variables.

We also assume that data processing costs are another area of interest. As noted previously, there are potential trade-offs between eligibility worker costs and automated data processing costs.

Although expenditures on services to clients other than certification are an important part of the FSP, different frameworks are needed to study variation in their costs. Studies of EBT costs for FNS have identified a very different set of variables, such as recipient shopping patterns and the proportion of retailers equipped at government expense to process EBT transactions (Phoenix MAXIMUS, 2000). For modeling FSNE and E&T costs, the important factors would include program design, participation levels (in total or as a percent of all food stamp participants), the type of agency serving as the subgrantee, and the types of partners. Fraud control costs include the establishment and recovery of claims for overpayments, and investigation and prosecution of fraud; these costs would be modeled on the basis of the volume of claims and investigations, and the types of staff and other resources used. In order to keep this feasibility study focused, it is necessary to set aside the feasibility issues for analyzing variation in these costs. We also assume that explaining variation in the costs of oversight functions is not a priority; these include quality control, management evaluation, and fair hearings.

Therefore, in this chapter and those that follow, we focus on the direct and indirect costs of certification (as defined in the following section), and on separating these costs from the other client service functions (issuance, E&T, and FSNE). In the discussion that follows, "direct" costs are the costs of interacting with customers (applicants and participants). For certification, the primary direct cost is the labor of front-line personnel; other direct costs include supplies and travel. Indirect costs are the costs of facilitating and overseeing these interactions: support staff, supervisors, managers, facilities, telecommunications, and other support services.[37] Direct costs are specific to a function, while indirect costs are shared across functions. Automated data processing (ADP) costs could be viewed as an indirect cost of certification, but we treat them as a separate category because they are reported such, and because there may be interest in trade-offs between data processing and labor costs.

FSP Cost Reporting Categories of Interest

In practice, States are not consistent in their definition of certification costs as reported on the SF-269 expenditure reports, according to our interviews with FNS. In particular, some States include both direct and indirect costs of certification in the "certification" category, while other States report some or all indirect costs (supervision, facilities, State administration, etc.) elsewhere, such as in the "unspecified other" category. Analysis of data for 1989 to 2001 for a recent study showed a significant negative correlation between certification and "unspecified other" costs within States, consistent with the views of FNS experts about the variation in reporting between these two categories (Logan, Rhodes, and Sabia, 2006).

[37] In cost allocation plans and related documents, "indirect cost" can have two meanings that differ from the definition that we use here. In one alternative definition, any cost that is not directly charged to a program is an "indirect cost". Another definition is that an "indirect cost" is a cost that is allocated by an indirect cost (percentage) rate.

When defining which FSP reporting categories to include in an analysis of "certification" costs, there is also the conceptual issue of whether to include activities that are consistently reported as separate costs but contribute to the effectiveness of certification. This question is particularly important for potential analyses comparing normalized costs to measures of accuracy, timeliness, and program access.

A broad definition of certification was used in the recent study of certification errors and costs (Logan, Kling, and Rhodes, 2008). The definition of certification-related costs included all components of SAE except those that were clearly not related to certification (issuance, FSNE, and E&T). Thus, the measure included outreach, "unspecified other", quality control, fraud control, fair hearings, reinvestment, and management evaluation costs. The authors noted that assignment of costs between certification and these related activities might vary across States, and that spending on the related activities might contribute to the effectiveness of certification. The certification-related cost measure excluded ADP costs on the grounds that these might trade off with certification costs and should be considered separately. The authors tested an alternate measure of certification cost that included ADP; this specification did not change the results. A separate variable for ADP costs had no effect on the error index.

Discussions with FNS and the States suggest a standardized definition of certification costs for analysis of SAE should at least include the costs reported by States in the certification, outreach, reinvestment, and "unspecified other" cost categories. Based on the known overlap of these categories in State reports, it is potentially misleading to separate them. The combination of these costs, however, appears to be comparable across States.[38] Fraud control, fair hearings, and management evaluation costs, in contrast, appear to be clearly defined as distinct from certification. These three categories could be excluded from a narrowly defined study of certification costs, or they could be included because they are closely related to certification. The quality control (QC) expense category is also well-defined and could be kept separate, but QC provides feedback to improve certification and thus should be considered if the analysis will relate certification costs to the accuracy of certification. A study of SAE could, of course, use multiple measures of certification costs. Also, we note that the differences among these alternative certification cost measures will be small. Fair hearings, management evaluation, reinvestment, outreach, and quality control expenses (as reported) jointly make up only about 3 percent of total SAE; fraud control represents 5 percent (Logan, Kling, and Rhodes, 2008).[39]

One practical issue with defining "certification" costs for analysis is whether to prorate the "unspecified other" costs between certification and the other functions (FSNE, E&T, issuance, and ADP). On the one hand, it is likely that most "unspecified other" costs are indirect costs of

[38] A State must have approval to conduct those activities that are defined as "outreach" in FSP rules, so these costs are likely to be clearly defined. However, these specified outreach activities can be a substitute for certification costs: for example, community partners doing outreach can provide assistance with applications in place of local FSP office personnel. This substitutability is the reason for recommending that outreach should be included in the definition of certification costs for analysis of SAE. Outreach in FY2006 cost less than $16 million, while the certification category alone totaled $3.3 billion, so the treatment of outreach will not have much effect on analysis of certification costs.

[39] These and most other percentages of total costs did not vary materially from year to year over the period of the study. The only notable changes in the percentage distribution were a decrease in the percentage for "unspecified other" and an increase in the percentage for nutrition education.

certification, because certification represents so much of the total SAE. Furthermore, to the extent that the other functions are contracted out, the reported cost will include the provider's direct and indirect costs. On the other hand, the categories other than certification may share the indirect costs that may be included in "unspecified other" (e.g., State program management overseeing FSNE, E&T, and issuance as well as certification). A reasonable approach would be to assume that the vast majority of indirect costs in "unspecified other" are certification-related, and therefore include the "unspecified other" costs in certification, but also to perform a sensitivity analysis using a prorated share of these costs. The alternative would be to collect data to decompose the "unspecified other", as discussed in Chapter Seven.

As suggested previously, there are arguments both for and against treating ADP costs as a component of certification costs. On the one hand, if there is substitution of ADP costs for labor costs, it may be logical to consider ADP costs as part of the "overhead" as defined for Options 2, 3, 4 and 5. On the other hand, the primary factors that affect variation in ADP costs may be specific to this cost category, such as the age and design of the ADP system. The choice between these arguments would depend on the objectives of the study and the data to be collected.

The rationale for treating ADP spending as a component of certification cost, or as a determinant of certification cost, depends on the assumption that ADP spending is related to the State's level of automation. This would seem to be a reasonable assumption: a more capable ADP system would be expected to cost more to develop and operate than a simpler system. The second assumption is that a more automated system reduces the labor required for certification. Without these relationships, variation in ADP costs might not be of much interest, since ADP costs represent only about 7.5 percent of all FSP SAE (for 1989-2005, as reported in Logan, Kling, and Rhodes, 2008).[40]

Interviews for this study yielded much skepticism about whether these assumptions hold in practice. Experts suggested that the amount spent on ADP systems, particularly for development, has a relatively loose relationship to the gains in efficiency and accuracy that result from implementing new systems. Thus, a profile of each system and its capabilities might be more useful than expenditure data for examining the relationship of ADP systems to certification costs. Such profiles were formerly created and maintained by the Administration for Children and Families, Department of Health and Human Services (ACF), but these profiles have not been updated in recent years. FNS has a great deal of information about the history of State ADP projects that might be mined, and is currently renovating its database on State ADP systems. A detailed investigation of these data was beyond the scope of this study but would be an important part of a study of ADP costs.

Whether data processing costs are analyzed separately from certification costs, or they are identified as a component of "overhead" for certification, there is an issue of how to define the measure of "data processing costs". States report two types of data processing costs—for operations and for development. Operational costs are the ongoing costs of operating and maintaining the data processing system's software, hardware, and communications networks. Development costs are the one-time costs of approved plans to create, renovate, or replace computer systems. These costs are claimed on a cash basis, when they are incurred, even though the systems may be used for 10 years or more thereafter. (One State interviewed for this study has a system that is 25 years old.) Thus, when

[40] The share of annual costs for ADP ranged from 6.2 to 8.4 percent, with generally higher percentages after 1996. (Source: unpublished tabulations from analysis files for Logan, Kling, and Rhodes, 2008.)

comparing data processing costs across States, or examining the tradeoff between data processing and certification costs, we face the question of how to value the investment in developing data processing systems. FNS has centralized records on the history of FSP information systems. These data might be used to identify the period when each State invested in its current system, so that this cost could be amortized over the life of the system. A simpler alternative is to analyze operations and development costs separately, taking a cumulative approach to development costs.

Considering the issues regarding ADP costs, we do not recommend inclusion of these costs in a measure of certification costs for comparisons across States and over time. We are also skeptical about the value of treating ADP costs as an explanatory variable in analysis of certification costs. While the data exist and they could be used to model effects on certification costs (e.g., lagged ADP development spending as an explanatory factor), we believe that ADP costs should be better understood before attempting such modeling. A descriptive study of ADP costs, the functions they support, and their relationship to system characteristics would be helpful to resolve the uncertainties about how these costs fit into the bigger picture of FSP operations. In particular, such a study would help to formulate clearer expectations about how ADP system features and costs may be related to certification costs.

Possible Biases and Random Errors in Allocation of SAE

Biases in the allocation of SAE could be unintentional or intentional. Unintentional bias could result from consistent patterns of recall errors in self-reported data. For example, if workers do not maintain time records on a timely basis and instead complete their reports by guessing how their time was spent, their errors may not be random. They might tend to choose the first program on the list of codes (the primacy effect), the last program (the recency effect), or the program they work on most often (Schwartz et al., 2008). Intentional bias could be built into the algorithms for cost allocation, or it could be manifested in the choices and actions of State and local personnel as they gather data and implement those algorithms.

If State and local agencies benefit more from some funding formulas than from others, they could have an incentive to charge to intentionally bias the allocation of costs toward the more favorable funding sources. State assistance programs (such as supplements for the elderly, blind and disabled) receive no Federal funding, so there is a potential incentive to shift costs away from these programs to Federal programs. Medicaid provides more than half of the funding for State administrative expenses (60 percent on average in FY2004, according to CMS, 2008), and the Federal share varies among States. Thus, all States get more reimbursement for Medicaid SAE than for FSP SAE. States with higher Medicaid Federal matching percentages may have a greater incentive to bias cost measurement and allocation toward the Medicaid program. The TANF program provides a block grant of Federal funds, and each State has a "maintenance of effort" (MOE) requirement based on 1994 non-Federal funding for AFDC. This funding structure could create incentives to shift costs to or away from TANF. On the one hand, costs that can be paid with available TANF block grant funds require no State match (beyond the specified level for MOE), as opposed to the open-ended 50 percent State share in most categories for the FSP. On the other hand, if the State expects to spend all of the TANF block grant, then any additional costs allocated to the FSP bring a 50 percent Federal match, instead of a 100 percent non-Federal cost.

The Federal controls on the cost allocation process, as described in Appendix B, are meant to assure that administrative costs in general are equitably allocated in proportion to the actual use of staff time and other resources. These controls include: Office of Management and Budget (OMB) and Division of Cost Allocation (DCA) requirements for cost allocation plans and standards for acceptable methods and the substantiation of data used for cost allocation; review of cost allocation plans by DCA, FNS and other agencies; State audits mandated by the Single Audit Act and OMB Circular A-133; and reviews and audits of cost allocation conducted by FNS and other Federal agencies. States recognize the responsibility to assure the validity of data on which financial reports are based and the potential liability if those data are found deficient. Thus, a major focus of Federal and State oversight is to assure that costs are allocated in ways that fairly reflect the resources used by each program. To the extent that cost allocation meets this standard in practice, the costs will be comparable across States and over time, because they will accurately reflect actual resource use.

While independent validation of FSP SAE is beyond the scope of this project, it appears unlikely that State differences in SAE are materially biased by the way that costs have been measured and allocated, at least since 1998. This conclusion is based on the controls in place and on the views expressed by Federal and State officials, as discussed below. There is, however, some basis to question the comparability of SAE prior to 1998 with later years because of a legislative change described later in this chapter. There are also some possible ongoing sources of bias in minor components of SAE.

Below, we discuss the controls and possible sources of bias and random error in cost allocation for the major components of SAE: local agency administration, other client services, automated data processing, and State administration. The focus of this discussion is on potential differences in cost allocation across States that could bias comparisons of SAE. We then discuss issues of comparability in cost allocation and reporting over time.

Local Agency Costs

The allocation of local agency administrative costs—the substantial majority of all FSP SAE—is a major focus of the requirements for cost allocation plans, both from OMB and from DCA. These requirements are designed to assure that worker samples for RMTS are sufficiently large and random, that workers are adequately trained and supervised in recording their time, that reporting is timely, and that time records are auditable (e.g., requiring the recording of case numbers and certification by workers). Time certification and reporting is reviewed by local supervisors, the State Food Stamp Agency, State auditors, and Federal reviewers.

For the majority of States, reliance on RMTS helps to assure the validity of reported local costs.[41] When executed properly, there is less risk of workers making recall errors (intentionally or otherwise) than in an ongoing time-keeping system. This is because the reporting is for a specific moment, so the worker has a clear instruction to record activity at the designated time, whether that activity is case-related, more general work, or non-work time such as breaks or leave. The random and discrete nature of an RMTS may also make it less likely that workers believe that how they report their time affects their agency's funding, and thus they will be less prone to bias their responses. When cost allocation is based on personnel activity reports, workers have a more general instruction to keep

[41] There does not appear to be a central tabulation of which States use RMTS versus other methods, but Federal experts agree that RMTS is the most common method.

track of activity as contemporaneously as possible. With much more information to track, there are more opportunities for error.

The validity of any time reporting system depends heavily on the ongoing compliance of the workers with the system and the oversight by supervisors. With only a small number of activities for each worker to record, it is comparatively easier for workers to take the time to record time properly, and for supervisors to monitor and verify observations. Nevertheless, there is evidence of problems with RMTS from at least two States, where the USDA Office of Inspector General (OIG) found that random-moment time study procedures were not followed and quality controls were not consistently implemented (USDA-OIG, 2000 and 2001). In one report, the OIG concluded:

> "Because of this [the deficiencies in the RMTS], there was reduced assurance that the reported county staff activities represented what the staff was actually doing at the sampled moments and, therefore, the FNS reimbursement of over $18 million in administrative costs to the FSP for the third quarter of fiscal year 1999 was questionable." (USDA-OIG, 2000, page i)

The burden on workers and supervisors is greater with the personnel activity report method, and thus the risk of error is greater, because all workers must record all of their time continuously, not just sampled moments. North Carolina addresses this risk by training workers three times each year on time reporting procedures, and by requiring supervisors to review time reports on a weekly basis. State officials acknowledge that some supervisors are less attentive to these reviews than others.

Mechanisms are available to reduce the possibility of error in time reporting. For RMTS, some States seek to reduce recall error by having another person or an automated system contact the worker at the sampled moment, rather than giving the worker a form some time before the sampled moment and collecting it hours or days later. In Nevada, for example, supervisors observe 10 percent of the sampled moments to validate the data. Some local agencies that use personnel activity reports automate this process to improve compliance and reduce errors.

The limitations of personnel activity reports, as discussed above, raise the possibility that allocation of local labor costs may be biased, or at least less reliable, in States that rely on this method. While the possibility of greater error with this method is clear, the existence of bias would still depend on a consistent pattern of error overstating or understating the time spent on the FSP. While State or local administrators might perceive an advantage from biasing local time reporting in one direction or another, there would be less motivation for individual workers to bias their time reporting. A concerted effort by administrators to bias time reporting is conceivable but would be difficult to conceal from the various reviewers, and the downside risk if this pattern were detected would be considerable. These considerations and the views of Federal experts suggest that the risk of significant bias in personnel activity reports is low, but the risk of error in this system is higher than with RMTS.

Considering the potential impact of the local agency time measurement system on the accuracy of cost data at this level, it would be useful to collect data on the type of system used in each State as part of a study of FSP SAE. A key question is how the data are collected (self-reported or by an observer; in real-time or after the moment). As discussed in Chapter 9, we recommend a survey of States to collect this and other information as part of the proposed plan of studies on SAE.

For workers that are not covered by time reporting or RMTS, and for nonlabor costs, the choice of allocation method could affect the share of costs charged to the FSP. The main options are (a) using the percentage of time charged to each program, and (b) using the percentage of costs. Either method can be justified as equitable, so neither can be considered "biased", but they could have different results. If the average pay rate is similar for workers who mostly or always work on the FSP and for other workers, and if there is no real difference in the direct-charged nonlabor costs across programs, the cost allocation result will be the same. On the other hand, some respondents suggested that new workers may start handling the FSP and then add other programs as they become more experienced. If so, the average cost per hour for FSP activities could be lower, and thus the percentage of costs charged would be less than the percentage of hours. Differences in direct-charged costs at the local level could also affect the allocation of supervisory labor and other shared costs (e.g., if there are more local training costs for TANF than for the FSP).

Given the size of the FSP relative to most other programs, differences between the percentage of hours and the percentage of costs for the FSP are likely to be small, and therefore the impact of the choice of method on cost allocation is likely to be small. This difference should, however, be acknowledged, because it might be particularly relevant in analyses of the ratio of non-eligibility worker costs to eligibility worker costs in Options 2, 3, 4, and 5. Thus, it would be useful for a study of SAE to collect information on the methods used to allocate local costs, including workers covered by time reporting or RMTS and other costs. This information could be obtained through a survey or by review of State cost allocation plans.

Administrative Costs for Other Client Services

Several types of client services seem unlikely to be subject to bias in cost allocation. EBT is almost always a contracted service with separate charges for each program on the system (FNS, 2008b). Similarly, employment and training (E&T) is usually contracted out and thus costs are a direct charge to the FSP and not subject to cost allocation among programs.[42] For nutrition education, the subgrantees (or implementing agencies) operate other programs as well, so they must establish a basis for allocating their costs across programs. Since subgrantees typically must secure the non-Federal funds to match Federal FSP funds on their own, and they must secure advance approval for nutrition education plans and budgets, there is a built-in restraint on the risk of overstating the total FSP share of the subgrantees' overall spending. There is some risk that FSNE costs could be shifted to other Federal programs, but they have similar controls. In any case, as stated previously, the focus of this feasibility study is on certification-related costs, and so the reliability of EBT, E&T, or FSNE costs is not a concern for the present study.

The use of call centers or other centralized units for certification functions is a relatively new area, and little information on allocation of these costs was available for this study. Information from the study States and Regions suggests that some such units track calls by program for allocation, while others use RMTS of call center staff. Both call counts and RMTS for call centers would be expected to be reliable and largely free of bias. The call centers operated by the study States were limited to information and referral services, however, so other methods might be used in call centers that carry out certification functions.

[42] The USDA OIG did find, however, that staff time and other administrative costs reported as spent on E&T were inflated in one State (USDA-OIG, 2003).

Reporting of ADP Development and Operations Costs

Any effect of bias in allocating ADP costs on overall SAE must be small, because these costs represent only 7.5 percent of total SAE.[43] Bias in ADP cost allocation would, of course, have much more impact on separate analysis of these costs. Controls to minimize bias for these costs appear to be well-established and strong, although FNS experts caution that these controls have evolved and strengthened over time. Proposed cost allocation methods are subject to close review as part of the Advance Planning Document review process for ADP development, as well as the normal cost allocation plan review process. Rate-setting for statewide data processing centers is subject to review by State auditors as well as State and Federal funding agencies; HHS oversight of ADP costs has been reduced, however, by staffing reductions. Utilization statistics are generated by automated processes, and some States (such as North Carolina) have built cost allocation calculations into these processes to further reduce the possibility of error and streamline cost reporting. According to Federal officials, audits and financial reviews discovered some problems with overcharging Federal programs (e.g., by using "prime" processing time for Federal programs and lower-cost time for State programs), but these instances occurred many years ago.[44] There is some risk that time reports by ADP development personnel may be biased toward Federal programs, and particularly toward programs with more than 50 percent Federal funding (such as Medicare). However, budgets for these projects are reviewed by State and Federal officials, and States cannot claim reimbursement for more than the approved budget. Last, effort by non-technical personnel on ADP development projects may be under-reported, but this is mainly an issue of the reporting category rather than whether costs were charged to the proper program. Thus, it appears that ADP costs for recent years can be compared with confidence, but some caution is in order when comparing older costs.

State-Level Administrative Costs

State-level administrative costs include functions mandated by the FSP, program oversight, and general administration. The mandated FSP functions appear to have modest costs: quality control, fair hearings, and management evaluation represent less than 3 percent of total SAE, and fraud control represents 5 percent (Logan, Kling, and Rhodes, 2008). Cost allocation documents from the sampled States and interviews with officials indicate that program oversight and general administration also represent small shares of total SAE. Thus, any bias in allocation of State-level administrative costs is likely to have little if any detectable effect on total SAE, but would of course affect comparisons of these costs by themselves.

The allocation of State-level administrative costs appears to be the area where State methods differ most and thus could yield different results (i.e., States A and B use the same resources for administration but report different costs because they allocate costs differently). Federal officials note that States generally seek to maximize Federal reimbursements by identifying all allowable administrative costs in their cost allocation plans, but Federal officials only approve cost allocation plans if they meet the OMB A-87 criteria for reasonable, necessary and allocable costs. When States choose the bases for allocating State-level administrative costs, they appear to have more flexibility

[43] As estimated for 1989-2005 using inflation-adjusted costs (Logan, Kling, and Rhodes, 2008).

[44] The sources of this information did not specify when these problems were identified, but the history of federal oversight goes back over three decades, and it appears that these problems with ADP operations costs were identified in the early years of this oversight. The reliability of ADP development costs was reportedly improved by changes implemented in 2002.

than when allocating local-level costs, but these bases must be justified to Federal officials. As discussed in the context of local agency costs, use of FTEs (from RMTS, direct charges, and activity reports) could result in a different allocation from the results of using percentages of costs based on the same sources. The complexity of cost allocation plans makes it difficult to predict how differences in allocation of State-level costs between two States would affect their bottom-line costs for the FSP. In general, however, if local costs represent by far the largest part of total SAE, and if local cost allocation is driven by an objective and reliable RMTS, it is unlikely that differences in exactly how this information is used will yield large differences in State-level administrative costs. Thus, while information on how State-level costs are allocated might be useful in assessing the comparability of these costs, it is not necessary for a broader study combining State and local-level SAE.

Comparability of Reported SAE Over Time

One of the great advantages of using reported SAE data is that they are available for many years. The recent study of certification costs and errors (Logan, Kling, and Rhodes, 2008) used data for 17 years, from 1989 to 2005. SAE data for earlier years are available from FNS data files and reports. Having many years of data would give added power to time-series analysis using the difference-of-difference (State fixed effects) approach, as discussed in Chapter 4.

Such methods require that the variables of interest are defined and measured consistently over the analysis period. They also require that variables reported for the each time period represent the same time period of actual activity in all States. The definitions of FSP functions for cost reporting have changed little over time, and analysts can choose how to combine these functions. There are, however, problems posed by changes in cost allocation rules and by the timing of cost reporting, as discussed below.

Changes in Allocation of Administrative Expenses

Three major changes in the 1990's affect the consistency of the definition and allocation of State administrative expenses for the FSP. First, the enactment of TANF in 1996 replaced the open-ended Federal funding for half of AFDC expenses with the TANF block grant and the State MOE requirement. This changed the financial incentives affecting cost allocation (see the previous discussion of the possible cost-shifting incentives of the TANF block grant).

Second, the Agricultural Research, Extension, and Education Reform Act of 1998 (AREERA) required States to change their cost allocation methods. Previously, many States allocated shared ("common") costs for AFDC/FS cases entirely to AFDC, under the "primary program" method of allocation.[45] AREERA required all States to use the "benefiting" program method, which splits these shared costs between TANF and the FSP, starting in 1999. (According to ACF, a few States secured a court decision that allowed them to continue using the primary program method.) Thus, the FSP cost for a FS/TANF case would be greater than the cost for a FS/AFDC case, even if nothing else changed other than the method of cost allocation. States might have changed their cost allocation practices before they were required to, because of the difference in funding between TANF and the

[45] The "primary" program is the one that bears all of the common costs, such as completing portions of the application for benefits that are used by all programs. In this case, the primary program was AFDC.

FSP. Some FNS Regional offices indicated that there was a substantial shift of costs from AFDC/TANF to the FSP as a result of AREERA, while others indicated that there was little change, and others were unsure because none of the respondents were involved with FSP financial management when AREERA was implemented. State respondents generally could not recall how this provision of AREERA affected their States.

Finally, AREERA reduced the Federal share of certification costs. Starting in FY1999, FNS has been required to deduct an "offset" amount that is deemed to be included in the State's TANF grant because of the way that the grant was set (GAO, 1999).[46] Thus, the non-Federal share equals 50 percent of the total certification cost plus the amount of the offset. The size of the offset for each State depended on the amount of common costs for AFDC/FS cases charged to AFDC, which varied substantially among States. Offsets were established for 44 States, and the average was 17 percent of the Federal share of certification outlays in FY1994 (the base year for the computation).[47] This change did not directly reduce the total funding for FSP certification. It is possible, however, that some States reduced their total certification spending so that the adjusted non-Federal share would match the available funds.

Because of these changes brought by TANF and AREERA, particularly the requirement to change cost allocation methods, it appears that reported SAE prior to FY1999 is not entirely comparable to SAE for later years. This poses an important issue for time-series analysis. On the one hand, it is desirable to use all of the available data, because the power to detect the causes of variation increases with the number of years of data used. In support of this approach, the expected difference in allocated costs between the primary program method and the benefitting program method has shrunk along with the decline in the proportion of FSP cases with AFDC/TANF. This percentage declined from 34 percent in 1996 to 13 percent in 2006 (Logan, Kling, and Rhodes, 2008; Wolkwitz, 2007). Also, it would be possible to control for the effects of AREERA by using information from the offset computations. These data could be used to create a variable representing the fraction of FSP certification costs allocated to AFDC under the primary program method in the baseline year for the offset computations. This information could also be used to adjust the pre-AREERA costs.[48]

On the other hand, the comparability problem may outweigh the usefulness of including pre-AREERA certification costs in a time-series analysis. Given the large proportion of FSP cases with AFDC in the years before AREERA, the impact of the choice of allocation method was substantial. The potential solution would substantially complicate the analysis. Furthermore, the value to be gained from using these data may not be great, since there are now nine complete fiscal years of FSP operations under AREERA (1999 through 2007).

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[46] TANF grants were set on the basis of AFDC funding for a base year. This funding included administrative costs that were, in most States, at least partly allocated on the "primary program" method. Thus, the AFDC funding included costs that would have been allocated to the FSP under the "benefiting program" method. As a result, a portion of the TANF grant was considered (under AREERA) to be duplicating the reimbursement under the FSP.

[47] This estimate is based on computations for Logan, Kling, and Rhodes (2008) using data provided by FNS.

[48] A simple indicator for the pre-AREERA years would force a constant effect for all States. Given the known variation in the offset, this would clearly overstate the change in some States and understate it in others. A pre-AREERA effect for each State might be a viable approach.

This issue does not have to be settled prior to undertaking analysis, however. A reasonable approach would first test the ability to model the variables of interest with the post-AREERA data. Next, the pre-AREERA data would be modeled, both with and without the suggested adjustment. Review of these results would help indicate whether it is preferable to pool the data for the two periods and how this should be done.

Consistency in the Timing of Reported Expenses

A different issue of comparability arises because States report SAE on a modified cash basis. As a result, outlays are reported in the quarter in which the State actually pays for goods and services. Thus, the cost for a service or product that is delivered in one quarter may appear in the next quarter's expenses.

Lags in the reporting of expenses could affect the comparability of SAE over time. A time lag could be an issue for analysis of trends within States, because changes in expenses would not occur in the period in which they would be expected to change, based on the variables driving the change (e.g., the caseload falls in a quarter but expenses fall in the following quarter). Differences in lags across States would make it difficult to analyze the impact of a common change across States over time.

The likelihood of a lag in reporting depends on the type of expense. Payroll costs are paid at least monthly, so the lag in these costs across periods is likely to be minimal. Some expenses are billed less often, however, so the costs for a quarter may not be representative of all of the resources used during the quarter (particularly the nonlabor resources). In States where counties administer the FSP, all local costs are typically paid by the State in the quarter after the quarter in which the County spent the funds, so cost trends in such States will lag behind trends in caseloads or other factors that affect costs. In fact, this lag can result in costs for activities in one fiscal year being recognized, under accepted accounting rules, as part of the following year's costs. The same lag in billing and payment can affect the timing of reporting versus actual activity for contracted services and interagency payments at the State level, including statewide data processing centers, FSNE, E&T, and outreach.

A further complication of cost reporting is that there is an extended process of closing out and finalizing the expenses for the year. States can liquidate obligated funds up to two years after the end of the fiscal year, so the State can "catch up" and assure that costs incurred during the year are paid with funds for that year. Expenses can be revised downward at a later date on the basis of financial reviews or audits. Thus, SAE should be analyzed on an annual basis, and it is preferable to wait up to two years after the end of the fiscal year before expenses are considered final.

Under Federal cost accounting rules, expenses should be charged against funds for the year in which costs are obligated. If States follow this principle, therefore, the "spillover" of costs reimbursed under an interagency agreement should be limited to the one-quarter lag discussed above. It is possible, however, for States to charge expenses to the wrong year, particularly if there is a particularly long lag in the billing by a contractor or another agency, or if there is a delayed adjustment to billing. An OIG audit of one State found $8.5 million charged in FY2000 for a prior year's expenses (USDA-OIG, 2002). Interviews with FNS officials indicate that such problems are rare and small when they do occur.

Summary

Our principal findings about the comparability of reported SAE are as follows.

- The "certification" reporting category does not provide a consistent measure across States, but this problem can be solved by creating an analytic measure that also includes the "unspecified other", "reinvestment", and "outreach" categories. A broader measure that includes related activities (such as quality control and management evaluations) may be desirable for analyses relating certification costs to effectiveness.
- There is substantial uncertainty about how to compare ADP costs, and this uncertainty should be resolved before attempting to relate these costs to certification costs.
- In general, it is unlikely that comparisons of local costs would be materially affected by differences in current cost allocation methods. There is some risk that local costs are less accurately reported when States use personnel activity reports instead of RMTS for multi-program staff. Information about how local costs are allocated in each of the States would be very useful for interpreting comparisons of SAE across States.
- There is a somewhat greater possibility that comparisons of State-level management and oversight costs might be affected by differences in cost allocation methods, but these costs are a relatively small portion of SAE.
- There do not appear to be cost reporting issues that would affect comparisons of FSNE, E&T, and issuance costs across States. Changes in these FSP components (particularly EBT implementation) would affect comparisons over time.
- Changes in cost allocation rules must be taken into account in comparing certification costs prior to 1999 with later years. It is possible to make adjustments for these changes, but these adjustments would complicate the modeling of changes in these costs over time.
- There are notable time lags in the reporting of SAE. For most States, these lags will not affect comparisons of final annual expenses. For States where counties administer the FSP, however, reporting lags may affect comparisons of expenses with other States and with trends in explanatory variables.

In general, there appears to be sufficient consistency in the reporting of SAE for the FSP to permit valid comparisons across States and over time. This conclusion applies to all components of SAE, and particularly to certification costs at the local level—the focus of the options presented in Chapter 4. This consistency is due to the extensive controls at the State and Federal levels to assure that claims for reimbursement are accurate and that the allocation of costs across programs is equitable. The primary limitation is that comparisons of costs prior to 1999 with later costs may be affected by differences in cost allocation methods. Adjustments to mitigate this problem appear feasible, but the results could be sensitive to the adjustment. The extent of this problem is an empirical question. The caveats above suggest a need for further information about allocation of costs at the State level and the timing of expenditures and reporting where counties administer the FSP. With respect to the latter problem, it seems likely that reasonable adjustments can be made.

Chapter 6

Data on Eligibility Worker Time, Compensation, and Costs

As discussed in Chapter 4, Options 2, 3, 4, and 5 would focus on eligibility worker costs, both because they represent the largest component of SAE, and because of the importance of these workers to the integrity and accessibility of the FSP. In this chapter, we discuss the quality, limitations, and feasibility of potential sources of data on eligibility worker time, compensation, and costs. While the category of "eligibility worker" primarily refers to workers who make eligibility determinations, for this chapter we recognize that in practice these options may require data on costs for other workers who perform some of the functions done elsewhere by eligibility workers. This expanded group of workers adds other workers have regular contacts with applicants and recipients (such as screeners), and workers (such as clerical staff) who do not have direct client contact but process eligibility information (applications, verification documents, periodic status reports, change reports, etc.) on an individual basis. Not all eligibility workers as defined above work in local assistance offices; this broad definition would include call center workers who perform certification tasks (as in Florida's modernization of the FSP).

As indicated in Exhibit 4.2, Options 2, 3, 4, and 5 require the following types of data on eligibility worker time, pay, and costs.

- Option 2 requires eligibility worker hours for the FSP, and the compensation per hour. When there is only one type of worker, knowledge of total compensation and either of these two values is sufficient to compute the other one. (We use "type" of worker to refer to subcategories within the general category of "eligibility worker". Different subcategories will have different pay scales, minimum qualifications, and job descriptions. This complication is discussed later in this chapter.) In the more realistic situation where there is more than one type of worker, having hours and compensation per hour for each type of worker would allow the computation of a better cost index (i.e., cost per hour, holding the mix of workers fixed).
- Option 3 requires the information for Option 2, plus the distribution of eligibility worker time by FSP case type, in all of the States covered by the analysis. Potential dimensions for defining case types include: new versus continuing, with/without earnings, with/without State-administered cash assistance (or other non-cash benefits conferring categorical eligibility), with/without Social Security or Supplemental Security Income (SSI), with/without elderly or disabled members, with/without non-citizens, household size, and rural/urban.
- Option 4 requires the data for Option 2 plus data to estimate a difficulty index for each case type, i.e. the ratio of the average time per case for the case type to the average time per case for a benchmark case type. Unlike Option 3, this option would combine data from a small number of States on the difficulty index with the Option 2 data for all States. This reduced scope of data collection means that Option 4 would be more feasible than Option 3 if the data for Option 3 are not available from existing sources.

- Option 5 requires the data for Option 2 plus the frequency of tasks by case type, the time per task by task, and the FSP share of eligibility worker time by case type. Under the "All States" version of this option, data would be collected to estimate the time per task for every State. Under the "Subset of States" version, time per task would be estimated for a sample of States and used to estimate a difficulty index for each task, analogous to the case difficulty index estimated in Option 4. Finally, under the "National Averages" version, the national average time per task would be estimated using pooled State data on eligibility worker time per case. All three versions would compute the frequency of tasks by case type for each State. Like Option 4, Option 5 offers a way to reduce the scope of data collection needed to estimate the parameters of interest in the likely scenario that the existing data for Option 3 are too limited.

In assessing potential sources of data for these options, we evaluated them against the following criteria for ideal (likely unattainable) data:

1. The measures should be defined consistently, both across States and over time.
2. The data should be available for all States.
3. The data should be available for multiple years for models of changes over time. The ability to control for unmeasured State differences and to make causal inference through difference-in-differences (DD) models increases with the number of years.
4. The data should have minimal bias and acceptable precision.

We also considered the practical challenges of collecting the data, including the difficulty and burden for the data collector and the respondents.

We began by considering data that are currently collected for cost allocation and could be used for these options. As discussed in Appendix B, there are three ways that data are collected on eligibility worker time for cost allocation: **random moment time studies** (RMTS), **personnel activity reports**, and semi-annual effort certifications (for workers who specialize in the FSP or another program). We also considered a variety of methods that might be used to collect new data, if existing sources are insufficient for the study objectives. One basic approach is to modify the existing time-reporting process, such as expanding the information collected in the RMTS or personnel activity reports. Another approach is to implement an alternate or additional time reporting process. Finally, there are methods that do not require time reporting by workers, including surveys of workers, process observations, and expert interviews.

The feasibility of all of these options depends on the cooperation of State agencies and, at least in some States, county agencies as well. Collection of existing cost data that are not already reported to FNS requires the cooperation of accounting personnel. New data collection, as part of an existing process or a special process for research, requires the cooperation of operational personnel; under most scenarios, the data would be collected from eligibility workers. We anticipate that it will be more challenging to obtain cooperation from agency managers to collect data from operational personnel, because of the likely concerns about interfering with the work of the agency. Depending on the State, the provisions of workers' collective bargaining agreements and the need to obtain cooperation of union leadership may be additional constraints.

This cooperation depends on several factors:

- the amount of burden on agency personnel
- the degree to which the data collection meshes or conflicts with ongoing operations
- the perceived risks and benefits of participating in the study
- the incentives or mandates for cooperation established by FNS.

As discussed in this chapter, some data collection options are inherently more burdensome than others. We have sought to identify options that make the most use of existing data, and options that can be integrated into agency operations, in order to minimize the burden on operational workers and the interference with operations. We have also taken into account the potential burden on accounting personnel, and how this depends on the alignment between the agency's existing reports and the data needed for the options. In this feasibility study, we have not sought to elaborate the strategies for addressing perceived risks and benefits, nor have we specified incentives or mandates, but such issues would have to be addressed in designing a study that involved a significant amount of data collection. This general issue of agency cooperation is, however, addressed further in the conclusions to this report.

The following sections assess the existing and potential data sources for each of Options 2, 3, 4, and 5. We discuss expectations about the definition, availability, accuracy, precision, and collection issues for the potential sources of data on eligibility worker time, pay, and costs. In the discussion of existing data, potential modifications to provide additional needed data are discussed.

Data for Option 2

Option 2 attempts to decompose variation in total SAE into variation in eligibility worker time per case, eligibility worker compensation per hour, and "overhead" (non-eligibility worker) cost per dollar of eligibility worker cost (or per eligibility worker hour). To do so, Option 2 requires data to divide all FSP costs into two categories: eligibility worker compensation and everything else, which Option 2 treats as "overhead". This option also requires data to decompose the eligibility worker compensation into hours per worker and total compensation per hour. Ideally, this information would be available separately for each type of eligibility worker. The total cost and average compensation would ideally include pay and benefits, but benefits could be broken out and compared on the basis of a fringe rate (average benefit cost expressed as a percentage of pay or a cost per FTE), or benefits could be considered part of overhead.[49]

Data Sources

Based on the available information, it appears likely that existing sources can provide State-level data on **eligibility worker costs** for the FSP. Some States may have FSP eligibility worker costs as a separate item in their accounting data supporting the computation of total FSP SAE. Otherwise, it is

[49] At the individual level, the amount paid by the State for fringe benefits varies depending on the benefits to which the worker is entitled and chooses to receive. In particular, health insurance costs are different for a worker with individual coverage, a worker with family coverage, and a worker who does not receive health insurance through the agency. For cost analysis purposes, we assume that the useful measure of benefit expenditures is the average cost per worker or per dollar of worker salaries.

likely that the total eligibility worker cost for all programs is a line item in accounting data supporting the local office cost allocation pool. The FSP's percentage of this pool (typically based on eligibility worker time distribution) can be applied to the total eligibility worker cost to estimate the FSP cost for eligibility workers alone.

State-level estimates of **eligibility worker hours** or full-time equivalent (FTEs) spent on the FSP rather than other programs are also likely to be available. Management reports may provide this information, or it may be available from summaries of data collected for cost allocation (personnel activity reports, effort certifications, or random moment studies). Depending on how the cost allocation computations are done, it may be necessary to take the percentage of eligibility worker time spend on the FSP (from cost allocation data) and apply it to management or personnel data on the total number of eligibility worker FTEs (or staff counts that can be used to estimate the number of FTEs). If eligibility worker time for the FSP is available but the cost is not available separately, the FSP time and the average eligibility worker pay can be used to estimate the cost.

Based on the available information, it appears likely that States can provide data to determine total eligibility worker costs and time for the FSP using one of these approaches. It also appears that there is no single standard for how the data to support FSP expenditure reports should be organized, so the data collection approach would need to be flexible.

Average eligibility worker pay can be computed from the total FSP cost and hours for eligibility workers, but this approach has an important limitation for analysis of variation in pay. As discussed in more detail below, the average "eligibility worker" differs in experience and qualifications across States and over time. The effective average cost per hour depends on both the pay scale and the distribution of worker hours on that pay scale. For example, consider two States with the same pay scale. State A has more junior workers who are at lower steps on the pay scale, while State B has more senior workers. As a result, the average pay rate in State A is less than in State B, not because State A pays less for a comparable worker, but because the workers are different. For models of pay rates, such differences in staff composition are important to take into account, in addition to labor market conditions and political considerations that may affect pay scales. Therefore, it is desirable to collect information on the pay scales for eligibility workers as well as on their average pay.

Pay scale data can be used in lieu of actual average pay to compute the total FSP eligibility worker cost from the total time, but the resulting estimate will be different. While the midpoint of the pay scale might seem to be a good estimate of the average, the average will be substantially different if distribution of workers on the pay scale is skewed, as when turnover is especially high or low. An average computed from actual pay data will provide a more accurate measure of total eligibility worker cost. It appears reasonable to expect that States can compute an estimate or provide the data to do so, using payroll information. The average pay rate is useful information for budgeting, so it is

likely that States have already done the computation. On the other hand, the midpoint of the pay scale may be useful for certain analytic strategies.[50]

As noted, the cost of eligibility worker time includes both pay and benefits, and separate comparisons of pay and benefits are desirable to explain the overall variation in costs. Using existing data may pose challenges for identifying benefits as a separate cost. A variety of scenarios are likely to be met.

- Benefits for eligibility workers may be a separate line item of local agency FSP costs, so the exact FSP benefit cost is known.
- There is a FSP total for eligibility worker pay and benefits combined. Thus, to separate pay and benefits, an estimate of the average pay rate and the number of hours is needed, or else an estimate of the fringe rate is needed (benefits as a percent of pay or dollars per hour).
- FSP pay costs for eligibility workers and other local personnel are reported separately, but there is a single item for benefits. Again, a fringe rate is needed to determine the benefit cost for the eligibility workers.
- The cost of benefits for eligibility workers is part of a larger total that is allocated to the FSP, and thus is part of the "overhead" at the local or State level. In this case, too, a fringe rate is needed.

It is likely that the State can provide the data to compute a fringe rate, but the type of data used and the approach may affect comparisons across States. One issue is the definition of the fringe rate. For budgeting purposes, the fringe rate is often expressed as the ratio of benefit expenses to pay. This ratio can be determined from expenditure data alone, without reference to staffing or time-use data. Mandatory benefits (such as Social Security and Medicare) and additional retirement benefits are actually tied to pay. On the other hand, health and dental insurance premiums paid by employers are either unrelated to pay or inversely related (because the employer's share falls as pay rises), so a cost per FTE is a better measure for these benefits. For a detailed comparison of benefit expenditures, the ideal would be to have a two-part fringe rate, with pay-related benefits expressed as a percentage of pay and other benefits as a cost per FTE. This approach would require a breakdown of benefit expenses, and such information might be difficult to obtain in some States.

The other key issue is whether to use benefit expenditures for specific types of workers, for all local workers, or for all State and local workers. The effective fringe rate may vary across different types of workers because of differences in the benefits they are entitled to. Part-time workers generally receive fewer benefits, and workers in different collective bargaining groups may also have different benefits. While estimating the fringe rate for eligibility workers may be desirable, it may be more burdensome or difficult for the State to provide the information. Determining a broader fringe rate,

[50] Using the pay scale midpoint to estimate the eligibility worker cost would eliminate differences in experience levels as a factor in comparisons across States; the result would be normalized for a standard level of experience. A different but related strategy would be to divide the total eligibility worker cost by the midpoint of the pay scale. This would produce an experience-adjusted measure of worker hours (under the assumption that higher-paid workers are proportionately more productive. This measure might be preferable to a comparison of actual hours that would have to take into account differences in worker experience.

either for all local personnel or agency-wide, will likely be easier, and such a rate may be more consistently defined and measured across States.

There is uncertainty about whether total FSP eligibility worker costs and time can be readily determined at the State level where the FSP is county-administered. The only county-operated state we interviewed was North Carolina. In North Carolina, the State requires counties to report each worker's salary, benefits, and time by program, and the State generates a report that totals both time and labor cost by program. It is possible, however, that other such States do not require reporting at a sufficient level of detail to compute both eligibility worker costs and time. The minimum State requirement would be for the counties to report their total FSP cost (by function) and maintain supporting documentation. To the extent that the data are not routinely reported to the State, data would have to be collected from all counties in the State, or at least from a sample. A survey of the 10 States with county-administered FSP would be needed to resolve this uncertainty. Such a survey would determine whether the State has data on time, costs, or both charged to the FSP separated by category of county office worker, or least for eligibility workers separately from other county personnel. Another key question for such a survey would be to determine the availability of data on pay and fringe benefit rates for county office personnel, either statewide averages or county-level averages.

Bias and Precision

As discussed in Chapter 5, the likelihood of significant bias in State accounting data is expected to be low. The precision for estimates from RMTS data is required to be high (a 95 percent confidence interval of plus or minus 2 percent for frequently served programs like the FSP) and the samples are large. All other accounting data are collected without sampling. There is unknown but small risk of error in State computations of average pay rates from payroll data, either for State budgeting purposes or upon request for a cost study. This type of computation is likely to be done frequently by finance or budget specialists, so the risk of error is probably small.

Data Formats and Retention Periods

As the previous discussion suggests, data on eligibility worker costs, time, and average pay may come from several different types of information systems: payroll records, RMTS or activity report databases, accounting systems, cost allocation worksheets, and budget documentation. While the type of system and its capabilities may vary, two common requirements establish the basis for minimum expectations for the availability of these data, as discussed below.

The first requirement concerns documentation. Documentation supporting expenses must meet standards set by State and Federal requirements. Auditors review the documentation that would be used for the data collection outlined above. Therefore, it is reasonable to expect that States can normally produce the necessary documentation, either in electronic or hard-copy form. There may be exceptions due to disasters or other events beyond the control of the States.

The second requirement concerns retention. States are required to maintain documentation for reported FSP administrative expenses for three years after the final report for the fiscal year. This includes not only the records of disbursements but also the time-use data and the spreadsheets or similar tools used in cost allocation computations. While the final FSP expenditure report is due 120 days after the end of the fiscal year, States may revise their reports up to two years after the year end.

Thus, documentation will likely be available for more than three years, and possibly for five years or more. The on-site retention period for electronic data is likely to be longer, because of the ease of storing electronic records. Some data may be in archives, but access to archival information is important to meet audit requirements, and State interviewees indicated that their archives are readily accessible.

Data Collection Process

There are two possible approaches for collecting eligibility worker time, pay, and costs. One approach would be to request existing documentation from the States. Having the researchers compute the measures may assure more consistency across States, but introduces a risk of error due to missing or misunderstood documentation. The other approach is to provide standard definitions of the measures and request that the States provide estimates. The State responses could be validated by obtaining documentation for a sample. The survey approach would be simpler to implement, and it would leverage the States' knowledge of their data. The difference in effort for the States is uncertain but likely small: once they had gathered the necessary documentation, the computation of the requested data would likely be simple. Both of these approaches could be implemented via mail, the Web, or a combination of these approaches, with telephone follow-up. A Web approach would be particularly suitable if a questionnaire format was used, but some States would prefer to e-mail or upload spreadsheets if asked to provide documentation. In the contacts for this study by phone and e-mail, we obtained or determined that it was readily feasible to obtain documentation of eligibility worker costs, time, and pay scales from the participating States. Much of the documentation provided was in electronic form.

Definition of Eligibility Worker

A key issue to be considered for this option, and for Options 3, 4, and 5, is obtaining consistency in the definition of "eligibility workers". In general terms, an "eligibility worker" is one who interacts with applicants and participants to obtain information, certifies households as eligible and computes the amount of the benefits that they qualify for, and carries out other tasks to maintain and confirm the ongoing eligibility of FSP households. Eligibility workers are distinct from "support staff" who do not have the authority to certify households (such as clerks or receptionists) and from supervisors who do not routinely interact with applicants and participants. The concept behind Options 2, 3, 4, and 5 is that, under conventional operating procedures, eligibility workers are the appropriate focus because they are the most numerous type of staff and represent the largest component of FSP cost, and because their time drives the use of other resources as well.

Comparisons of time and costs for "eligibility workers" depend on consistency in the definition of who is counted as an "eligibility worker" and what they do. Job classifications may vary across States; so may the actual practice regarding the types of workers that conduct certification interviews and make determinations of eligibility and benefits. Inconsistencies in the definition of eligibility worker costs could distort or conceal the actual differences among States. If a State has a narrow role for eligibility workers, the costs for "everything else" (i.e., what is not defined by the State as eligibility worker costs), will be greater than if eligibility workers had a broader role, all else equal. For example, if the cost for "everything else" includes local support staff, then that cost would be higher where support staff do initial screening than where eligibility workers do this function. This screening could be face-to-face or by telephone, depending on the application process flow. Some differences in the roles and tasks of eligibility workers result from policy choices of interest for

analysis, such as the use of automated on-line application systems or community partners providing application assistance. These differences might result in cost savings, but they would not confound comparisons across States as long as the policies are taken into account.

The available information from the interviews and the researchers' prior experience suggests a considerable degree of consistency among States in the basic definition of an eligibility worker, but also variation in the division of labor between eligibility workers and other local staff. Each of the four States interviewed has one or more classes of eligibility workers with similar functions (initial certification, recertification, interim changes, reviewing computer matches). These workers are distinct from support staff (receptionists, clerks, telephone operators), in terms of job classification, qualifications, and authority to make eligibility decisions. In some States, however, support staff do some screening or initial intake and other client interface tasks that are done by eligibility workers in other States. The definition of eligibility supervisor was also consistent across the four States, but some had an intermediate category of "lead worker" that had more client contact than supervisors but less than the eligibility workers. (The definition of "eligibility worker" could include lead workers, even though they would typically be in a different job classification with a different pay scale.) State respondents also noted that there is some flexibility for local offices to vary the roles of support staff, supervisors, and lead workers; for example a supervisor in a small office might carry a partial caseload. These interview data are consistent with the researchers' experience in other States.

Ideally, for an analysis focused on eligibility worker costs, those costs would be defined as the time spent on a standard set of tasks that "eligibility worker" do. Otherwise, if the job classification of "eligibility worker" is defined differently, the time per case will not be comparable (e.g., if eligibility workers do the initial interviews in some States while support staff do at least part of this task in other States). In practice, defining eligibility worker costs on the basis of specific tasks would require data on the staff time for those tasks. We sought to determine whether States collect data on time by task through their RMTS or other studies, and the evidence suggests that this is not a common practice. Therefore, it appears that a detailed time study would be required to provide the ideal data. (The implications of this for Options 3 and 4 are discussed in later sections.) On the other hand, there are ways that the existing data could be supplemented so that analysis could control for differences in the allocation of duties between eligibility workers and other staff members, as discussed below.

There are two different ways that "eligibility workers" are defined in the existing data. First, States define job classifications such as "income maintenance caseworkers", "family assistance analysts" or similar titles that correspond to the concept of eligibility worker. Personnel records identify the number of employees in each job classification and their pay rates, and it is likely that payroll records include job classification. Charges to the FSP may or may not be broken down by job classification, depending on how the accounting system is designed.[51] Second, States that conduct RMTS define a set of workers who are subject to sampling for the RMTS, based on whether they have substantial client contact and can identify the client's program or program combination.[52] Similarly, where

[51] While the underlying data on total costs for all programs are based on pay for individual workers, the FSP cost may be computed by applying a percentage to the total local labor cost. While in principle this percentage can be applied to a total for a job classification, obtaining the additional information entails more burden for the State, especially if a special tabulation is needed.

[52] A general principle of RMTS and personnel activity reports is that they are only completed by workers who can readily and reliably identify the program they are working on at the times for which they must report.

personnel activity reports are used to allocate costs for multi-program workers, the State defines a set of workers who are required to complete these reports. In some States, the set of workers subject to time measurement comprises only the typical "eligibility workers"; in others it includes supervisors or paraprofessionals ("income maintenance technicians") who have substantial client contact.[53] The definition of the workers for the RMTS or activity reports is likely to be more consistent across States, in terms of functional responsibilities, than the job classifications, because of the Federal standards for measuring time use for cost allocation.[54] If limited data collection resources posed a constraint, it appears that it would be reasonable to proceed on this assumption. It would be useful, however, to collect eligibility worker costs both ways, or at least to obtain the distribution of the RMTS sample or the workers completing activity reports by job classification in each State.

An alternative solution to the problem of defining an "eligibility worker" is to modify the basic concept of the analysis, so that instead of "eligibility worker costs", the key measure is "local certification labor", defined as the local office labor for certification and related activities. (In terms of FSP reporting categories, this would include local labor charged to the "certification" and "unspecified other" categories.) Local certification labor would include eligibility workers, support staff, supervisors, and managers. Thus, as long as the certification functions of local offices are comparable, the local certification labor costs will be comparable.

A complication of this alternative approach is that local certification labor costs represent a mix of different types of workers. Therefore, if data were collected on the total certification labor cost and hours, there would be two problems for analysis. First, unlike a pure comparison of eligibility worker hours, the total hours would not be measured with a standardized unit. If productivity varies by type of worker, then the mix of labor (e.g., clerks versus eligibility workers) could contribute to differences in certification hours per case, along with the other factors in the model. Second, the ratio of certification cost to hours would be the weighted average pay rate, reflecting the pay rate for each worker type and the labor mix. In order to compare pay differences in annual local certification labor cost per case among States and over time, one would need to know the pay rate for each worker type. To determine the impact of each pay rate on the total certification labor cost, one would need to known the percentage of time by worker type.

In sum, this option would require the following data for each State in each year, in order to properly analyze variation in local certification labor costs and hours:

- total FSP certification labor cost
- total FSP certification labor hours
- average pay rate for each worker type
- percentage of FSP certification labor hours by worker type

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[53] A paraprofessional in this context is someone who has some, but not all, of the qualifications and responsibilities of eligibility workers.

[54] It appears that income maintenance and social services workers are usually sampled separately, so that the functions covered by the income maintenance RMTS are comparable across States. Sometimes there is a combined RMTS for workers who do both income maintenance and social services. The universe of workers for such a study would not be comparable to the workers in a "pure" income maintenance RMTS. In this context, one could rely on job classifications, or one could seek data on the workers who reported FSP certification time in the RMTS.

The approaches outlined above would provide all of these data except for last item. The preferable way to determine the percentage of FSP certification labor hours by worker type would be to obtain this from the supporting data for cost allocation. The overall distribution of local labor hours by worker type would be a reasonable approximation, as long as other programs do not use a very different labor mix. This could be a problem in a State where local offices administer both income maintenance and social services programs, but if such a State has a separate income maintenance cost pool, the distribution of labor hours by worker type within this pool would be suitable for this purpose.

Call Centers and Case Processing Centers

Another issue for Options 2, 3, 4, and 5 is that some States (such as Florida) have call centers or other centralized units that perform certification tasks in place of local offices. The staff in these centers who perform the same functions as eligibility workers elsewhere would logically be included in the "eligibility worker" cost, even if the center staff have a different job title. If these staff are not included, comparisons of eligibility worker costs or local certification labor costs will be misleading.

None of the States in the study had such centers, so we did not obtain information about how their costs are allocated between the FSP and other programs. Based on the OMB and DCA guidance, we would expect that there would be a time measurement system, using personnel activity reports, an RMTS, or a call tracking system. Contact with the State would be needed to determine what data were available to best meet the need to include these costs in the "eligibility worker" or "local certification labor" cost.

Personnel Data on Worker Characteristics to Analyze Variation in Pay and Benefits

For analyzing the variation in eligibility worker pay and benefits across States and over time, data about worker characteristics from payroll and personnel records may be desirable. Differences in qualifications (such as education) and experience may be important factors. The following are the expectations about available information from our data collection:

- Payroll records typically indicate each worker's job classification, pay grade, and step within the grade. The step increases in grade occur automatically on a set schedule (often but not always annually) until the worker reaches the maximum. Therefore, with knowledge of the step increase schedule, one can determine the minimum value of a worker's time in grade, but not the actual value for workers at the maximum step.
- If the average pay rate for workers in a classification and the pay scale are known, the average step can be determined and used as a proxy for average years in grade. The State may have computed average pay for use in budgeting or other management needs. The same qualifier about workers at the maximum step applies, but actual payroll records are not needed to estimate average years in grade as a proxy for experience.
- It is possible that years of experience can be determined from personnel records, but access to these records could be difficult or impossible in some States. Personnel records and step within grade may not reflect experience outside the agency where the worker is currently employed.

- Qualifications for positions are documented, including experience and education. These are the minimum qualifications, however. On the other hand, some workers may have more than the minimum, while others may have less because they were hired into their positions before current qualifications were established. Thus, it is difficult to establish a reliable measure of qualifications for comparisons of pay. States do not appear to maintain accessible records of individual workers' prior education and experience.
- Payroll and personnel data of interest may exist only at the county level where the FSP is county-administered.
- Access to information from payroll and personnel records requires one of two approaches. The researcher must obtain access to highly confidential and sensitive records, or the State must do the necessary tabulations and provide only non-confidential summary data. The former approach is not feasible to carry out in a large number of States. The latter approach is feasible in principle, but the data systems must support the analysis, and the cost is uncertain.

Thus, it appears that the most feasible approach to obtaining data on worker qualifications is to use average pay and pay scale information to estimate the average worker's number of years in grade. Collecting and analyzing specifications of the minimum qualifications for eligibility workers could also be informative, although there would be coding and analysis issues for such qualitative data. If better data are desired, there are trade-offs among the options. On the one hand, a survey of workers would avoid the legal and consent issues for obtaining administrative data, and a survey could ask for information unavailable from administrative records. On the other hand, such a survey would be much more costly and burdensome on workers than obtaining administrative data. For State-level estimates, such a survey would need about 200 to 360 observations per State, based on a 95 percent confidence interval of +/- 5 percent on an estimate of 50 percent.[55] If the question of interest is the general relationship between pay, qualifications, and experience, the sample could be national and thus much smaller. This approach would be more exploratory, but it appears far more practical, given the issues with collecting personnel qualifications data on a larger scale and the uncertain value of such data.

Data for Option 3

Under Option 3, eligibility worker costs would be modeled separately for each case type, where the case types are defined by some combination of household characteristics (income, composition, etc.). Thus, each model would not have to control for differences in case mix (the proportion of cases by type). Instead, the models would focus on the effects of factor prices, economic and political conditions, and policy choices on the average cost for each case type. A subset of policy choices would be relevant for each case type, so the number of explanatory variables would be reduced. The effect of case mix would be estimated by computing the expected mean cost per case for each case type and then applying the actual case mix for each observation to estimate the expected average cost per case. As in Option 2, the ratio of total costs to eligibility worker costs (i.e., the "overhead" rate)

[55] The number of observations for each State would depend on the size of the worker population. These figures assume a range of about 400 to 6000 eligibility workers per State, based on figures from the study States. Above 6000 workers the sample would not increase much. In small States, a census of workers might be needed.

would be modeled separately. Ideally, the analysis would be conducted with a time series of State data, so that difference-of-difference models could be estimated.

Thus, Option 3 requires the eligibility worker time and cost information for Option 2, plus the distribution of eligibility worker time by FSP case type. These data would be needed for all States and years within the scope of the study. The feasibility considerations for Option 2, as discussed above, would apply to Option 3. Beyond these considerations, the following are the key issues for the feasibility of collecting the data for Option 3:

- There are many possible definitions of case types for which separate cost models might be desirable in principle. It is important to define the case types in a way that would likely be useful in explaining the interstate variation in average eligibility worker cost per case, and also so that no case type is so rare that adequate data cannot be obtained. The classification of case types needs to be mutually exclusive and collectively exhaustive.
- Existing data on eligibility worker time use by case type appear to be limited in three important ways. The only generally used case typology in RMTS and activity reports is the program or combination of programs for the case being served. For a study of all States, the data would be at best available for three to five years. Time by case type is not likely to be available for FSP-only workers because they do not participate in RMTS and do not complete activity reports. Interviews with Federal officials suggest, however, that the majority of eligibility workers participate in RMTS.
- An alternative option would merge RMTS data or activity reports with case records to estimate the distribution of eligibility worker time use along any dimension of case types that can be defined with case records. This option would overcome the first limitation of the previous option, but it would also be limited to three to five years, and would also not cover FSP-only workers. In addition, this option would require the matching of the original observations in the time-use data to case records, and this would be a very substantial data processing effort.
- Methods exist to collect new data on eligibility worker time by case type, and several studies have done this in a limited number of States. Given the sample sizes needed in each State, a 50-State study for a single year would be very large, involving several thousand workers. All of the data collection options would require substantial cooperation from the State, although data might be collected as part of RMTS or activity reports to minimize burden and maximize response rates. Multiple years would be almost certainly infeasible.

Each of these issues is discussed in more detail below.

Defining Case Types for Analysis

As discussed in Chapters 2 and 3, the average monthly administrative cost per case could vary across several dimensions of differences among FSP cases. Discussions with FNS and States have identified numerous potential dimensions for defining case types that might have different costs, including but not limited to: new versus continuing, with/without earnings, with/without child support income, with/without State-administered cash assistance (TANF or General Assistance) or TANF non-cash assistance (conferring categorical eligibility), with/without Social Security or SSI, with/without elderly or disabled members, with/without non-citizens, household size, and rural/urban.

Cases of a certain type would have above-average costs if they require more frequent tasks or if those tasks are more time-consuming when they occur. Actions may be triggered by entry, changes in income or deductable expenses, individuals entering or leaving the household, households relocating, program violations, or voluntary exits. More stable cases will have lower costs, as will cases that are easier to administer. The ease of administration depends on the amount of information needed, the ease or difficulty of getting that information, and the complexity of the rules that apply to the circumstances. The FSP certification cost study (Hamilton et al., 1989) found that significant differences in workload were attributable to case characteristics that affected turnover and volatility of benefits; these were (a) presence of earned income, (b) presence of unearned income from sources other than government benefits, and (c) presence of elderly persons. Changes in program rules, caseload characteristics, and other contextual variables in last two decades may have made other case characteristics more influential. For example, the presence of earned income may be less influential in the current program environment, with the widespread use of simplified reporting and with the increase in the proportion of FSP cases with both earnings and cash assistance. On the other hand, recent initiatives such as the Combined Application Projects for SSI/FSP recipients may have made the presence of SSI recipients a more significant factor.

In defining the case types of interest for Option 3, case types should be based on case characteristics that are expected to significantly affect the average cost per case, or are expected to be associated with policy variables that are expected to have significant cost effects. Distinguishing between FSP-only households and those that also receive public assistance is likely to be useful, because costs for the latter are shared between programs. Policies such as simplified reporting are likely to have more of an effect on households with earnings than on those without earnings, because simplified reporting reduces paperwork and client contacts associated with fluctuations in employment and income. On the other hand, it may be neither feasible nor useful to model costs for households with non-citizens, because these households are quite rare in most States. In 2006, six percent of food stamp households contained non-citizens in the household, if not necessarily in the food stamp unit (Wolkwitz, 2007).[56] Exploratory analysis of aggregate SAE (i.e., Option 1) would be very helpful to provide an empirical basis for defining the most important dimensions of caseload heterogeneity.

Households receiving disaster assistance under the FSP represent a special type of case for which eligibility and benefit determination are much simpler than for regular FSP households. In most States and nationally in most years, the percentage of FSP households authorized under the disaster FSP is too small to materially affect the overall SAE per case. In some years and particularly in some States, this percentage is large enough that it might affect SAE. In recent years, the extreme example is FY2006, when approximately 4.7 million persons received disaster FSP assistance, or about 18 percent of the average monthly participation of 26.7 million persons. The vast majority of the disaster cases were in four States: Florida, Louisiana, Alabama, and Mississippi. In the rest of the nation, the percentage of cases receiving disaster assistance was too small to have a material impact on SAE. Thus, while it would be desirable to consider disaster cases in a complete accounting of the effects of case mix on FSP SAE, the effect would likely be confounded in a regression analysis by other characteristics of the States with the most disaster cases. Furthermore, when SAE is analyzed on an annual basis (as is necessary for reasons explained in this report), the effect of a brief period of

[56] This low frequency is also a reason not to include the proportion of FSP households with non-citizens in a model of aggregate cost per case under Option 1. This proportion is high in a small number of States, so the "non-citizen" effect would be difficult to identify separately from the State effects.

participation by disaster assistance cases on the average SAE for all FSP households will be substantially diluted.

Another important consideration is whether case types will be defined based on a single characteristic or combinations of characteristics. This is an analysis issue, but it has implications for the data collection. When characteristics are combined to create case types, the number of case types multiplies, and so does the number of observations needed for a given level of precision in estimating key parameters. This is not an issue when using administrative data that are available for all cases, but it may be an issue when using sample data, whether existing (RMTS, QC) or new, depending on the analysis.[57] When case mix percentages will be computed, case types need to be defined so that they are mutually exclusive and collectively exhaustive—i.e., so the percentages add up to 100 percent. Appropriate analysis strategies would define case types so that none was too small a percentage of the caseload. Based on a preliminary assessment, a minimum of 10 percent would be a reasonable threshold to assure acceptable precision for estimates of case mix percentages from QC data, but sampling error should be carefully considered in the context of the exact use of the estimates.[58]

Existing Eligibility Worker Time Data

The only worker time data that appear to be widely available are the RMTS or activity reports that States collect for cost allocation. None of the States interviewed for this report had done other studies, and FNS representatives were aware of only a few States that had collected more detailed data.

It appears that the only generally used case typology in RMTS and activity reports is the program or combination of programs for the case being served. This is the information needed for cost allocation. Collecting other information would add to the cost and burden of the time measurement, and would add to the possibilities for error. It is worth noting, however, that this case type breakdown is particularly important, because of cost-sharing.

For a study of all States, the RMTS or activity report data would be at best available for three to five years. This is the retention period for records supporting cost allocation. Some States may retain data for longer, particularly the information in electronic form. Thus, a longitudinal study in a non-random set of States might be possible.

Because of the need to rely on RMTS or activity reports, time by case type is not likely to be available for FSP-only workers. Such workers can simply certify twice a year that they only work on the FSP. If these workers perform more than one FSP function (such as certification and fraud control), the State would have to establish a way to document their time, but it would be unlikely for such records to have case type information. We do not know how numerous these workers are. If

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[57] If the analysis is intended to compare time per case by case type, then sampling error reduces the power to detect differences. On the other hand, if the estimates by case type are combined, as in a normalized estimate of overall time per case (using State-specific time per case by type and average case mix), errors in the individual estimates may offset each other, and the overall estimate will be more precise than its components.

[58] The average State QC sample is approximately 1000 cases. Using the QC documentation, we estimate that the 95 percent confidence interval for a State estimate of 10 percent is +/- 3 percent.

they are not common in most States, this is not a serious problem for this or other approaches using existing time data.

In principle, RMTS and activity reports could be modified to include one or more case type codes as well as a program combination code.[59] The feasibility of this approach for Option 3 is highly questionable, due to several major challenges. First and foremost, all 50 States and other included jurisdictions would have to modify forms, train workers, implement data quality processes, and process the additional data. Second, the additional worker burden would be an important issue, particularly if the case type does not already exist as a single data element in the case record and thus would require the worker to look up several data elements. Finally, this step in the process would be prone to errors and missing data, particularly if it is not mandatory for the worker. A merge with case records would likely be required to verify the data and fill missing data; such a merge could be done without extra data recording by workers, as described below.

Combining Existing Eligibility Worker Time Data and Case Records

The fact that RMTS and activity reports have case numbers creates an opportunity to estimate the percentage of eligibility worker time for case types other than program combination, using existing data. Each time-use record (such as an RMTS observation) could be merged with data from the case record, using the case number. Thus, one could estimate the percentage of eligibility worker time and total eligibility worker time for any combination of case characteristics documented in the case records. (Percentages would be computed for client contact time, excluding time for which no case number was identified.) Combining this information with the total eligibility worker cost (with or without "overhead"), one could compute the total cost and average cost per case by case type.

This option would have several challenges and limitations.

- Any study using existing RMTS and activity report data would be limited to the minimum retention period of three to five years.
- Existing RMTS and activity report data do not include FSP-only workers.
- While DCA guidelines specify that the case number should be recorded in RMTS and activity reports, there may be exceptions. Moreover, in a paper system, the case number may be recorded on the original form but not entered. Therefore, the forms would have to be retrieved and entered.
- State privacy rules might restrict access to this information, if worker or client information on the form is confidential and use for this purpose requires consent.
- State cooperation would be needed, both to provide the time records and the case record extracts.
- Matching case records to a file of time use records by case number would require substantial computing resources, experience with data matching, and appropriate software. Data matching with case records is commonly done for research, but it is not a trivial task.

[59] A code could be used for each of several dimensions, such as types of earnings, number of adults, presence of children, presence of elderly, etc.

- There is some risk of transcription errors in recording case numbers, but this risk does not appear to be a major problem. According to State officials, the accuracy of case numbers on RMTS forms is high, because case numbers are very important and familiar information to eligibility workers.
- Depending on the number of case types and the desired precision, it might be sufficient to use one quarter's time use data, or more data might be needed. The sample size would be determined by the least common case type. As the number of months of time use data increases, so does the number of months of case records that must be extracted.

A feasibility test of this option on a small scale would be highly advisable before undertaking it on a large scale, both to assure that it can be done and to provide a base of experience to assure the success of the larger study. Based on the issues highlighted above, it appears that a 50-State study using this method would be a very large undertaking. On the other hand, this method could be used in a smaller number of States for Option 4, as discussed below.

New Data Collection on Eligibility Worker Time by Case Type

Several studies of the FSP and other food assistance programs have conducted primary data collection on labor costs when available administrative data have been insufficient. The methods include interviews, worker surveys, timesheets, and observation of work.

Two of these methods were used by the study of FSP certification costs conducted for FNS (Hamilton et al., 1989). The study analyzed the factors driving the effort for certification in four States. Eligibility workers in selected offices completed daily timesheets for a month, recording the time spent on each task for a food stamp case. They also recorded case numbers, which were later linked to administrative data so that individual case characteristics were identified (receipt of public assistance, employment, household composition, etc.). Local office characteristics, such as unemployment rate and type of place, were also linked to the time study data as additional characteristics of the cases served. Surveys of supervisors and support staff were conducted to obtain data on their time. The study analyzed the case characteristics associated with the frequency and duration of four key tasks: initial certification, monthly reporting, interim changes, and recertification. The resulting models were used to estimate the effect of case characteristics on all States' certification costs. Thus, this study represents a combination of Option 4 and Option 5 (as further discussed in this chapter). Eligibility worker time-use data were collected on a smaller scale for use in a simulation of the impacts of alternative reporting rules on administrative costs (MaCurdy and Marrufo, 2006).

Other studies of food assistance programs have used similar time measurement methods. Studies of the WIC program by Abt Associates (Nutt-Powell, 1988) and the Government Accountability Office (GAO, 2000) measured the proportion of local staff time spent on various nutrition services and administrative functions through detailed reporting of activities. Time studies of issuance activities and worker surveys were conducted for several studies of the costs and benefits of EBT systems (e.g., Logan et al., 1994).

Primary data collection has significant advantages and limitations. The data are consistently defined and measured, not subject to the variation in design and practice among accounting systems. The level of detail allows estimates of task frequency and task duration. On the other hand, primary data

collection can be costly and place substantial burden on the research subjects. The burden expands as the scope of tasks to be measured increases. As a result of these limitations, studies using this approach have been limited to a small number of sites and a specific aspect of program administration.

A 50-State study of eligibility worker time by case type using primary data collection methods, particularly timesheets or work observation, would be a massive undertaking. Even a survey-based approach would require data from several thousand workers to provide State-level estimates for a single year.[60] All of the data collection options would require substantial cooperation from the State, although data might be collected as part of RMTS or activity reports to minimize burden and maximize response rates. Multiple years would be almost certainly infeasible.

Thus, Option 3 as specified in Chapter 4 could be implemented with existing data RMTS and activity report data, but these data only would support analysis of cost by program combination. This analysis would be of limited value: while the impact of variation in case mix by program combination may be important, this is only one dimension of interest. None of the options for directly estimating time use by other case type breakdowns appears to be feasible to implement in 50 States. These options are better suited to Options 4 and 5, which leverage data from a small number of States, as discussed below.

Data for Option 4

Option 4 requires the data for Option 2 plus data to estimate a difficulty index for each case type, i.e. the ratio of the average eligibility worker time per case for the case type to the average time per case for a benchmark case type. Option 4 assumes that the difficulty index for each case type is constant across States, and thus data on time by case type from a few States can be pooled to estimate the difficulty index, rather than collecting these data from all States as in Option 3. Data collection can be further simplified by assuming that the difficulty index is constant over time as well. As discussed in Chapter 4, these assumptions are quite strong and would limit the scope of the analysis, but they require much less data than Option 3 and could provide much more insight than Option 2.

For the additional difficulty data required by Option 4, the possible data collection methods are the same as those discussed under Option 3:

- Existing data on eligibility worker time by case type could be obtained from States that collect the data in random-moment time studies (RMTS) or personnel activity reports (PAR).
- The existing RMTS or PAR in several States could be modified to include case type codes for observed moments.
- Data from RMTS or PAR with case numbers could be merged with case records to identify the case type for each observation.

[60] As previously discussed, worker surveys would require samples in the range of 200 to 360 observations per State and thus more than 10,000 observations, to provide estimates with a 95 percent confidence interval of 5 percentage points.

- A new time study could be conducted with a sample of workers in each State, using one of the methods listed under Option 3 (interviews, worker surveys, timesheets, and observation of work.)

These alternatives are discussed below. Most of the alternatives have been discussed under Option 3 as theoretically possible but not feasible to do in all States. Option 4 would greatly reduce the scale of the data collection, but the other feasibility issues for these alternatives would apply.

States might provide **existing data on eligibility worker time use by case type**, if the case type information of interest is captured in the RMTS or PAR. As discussed above under Option 3, this approach would be feasible only to the extent that States collect the data, and the case types would be limited to those that are available. The number of States with such data is unknown but could be determined by a survey. There is no assurance that the case types would be consistent, so the analysis would be further constrained by potentially having to combine data across different typologies. Given the expected retention period of 3 to 5 years for these data, it is likely that few States could provide data for a longitudinal analysis by this method or using case records merged with time use data.

Modified versions of existing RMTS or PAR could identify a standard set of case types. As noted under Option 3, this approach poses are important issues of burden, reliability, and impact on program operations. A modified study would be available only for the period in which it was conducted, so multi-year data collection may not be feasible.

Case records could be merged with eligibility worker time use data to permit estimation of the percentage of time for any case type that can be specified with case record data. As discussed above under Option 3, this approach requires that case numbers are recorded in the time use data (either currently or with modification), and that the data on individual observations are readily available (preferably in electronic form with case numbers included). This approach appears technically feasible, at least on a small scale, but further study would be needed to address the issues raised under Option 3, and a pilot test would be advisable.

A new time study would provide comparable data for all sampled States but would pose particularly significant issues of burden, error, or both. The FSP certification cost study and other FNS studies have demonstrated that event logs, daily activity reports, and other time reporting tools are technically feasible to implement, within a small number of offices for a limited time. From a practical perspective, these studies entail substantially more burden for each sampled worker than RMTS. For example, a worker might record 10 or more events or time intervals per day, spending anywhere from 3 to 15 minutes per day keeping the time record. In a month-long study, this effort would add up to between 1 and 5 hours per worker.[61] In contrast, each RMTS observation would typically take 1 to 2 minutes, and workers would typically be selected less than 10 times per quarter. Thus, RMTS on a statewide basis is far less burdensome on the individual worker; on the other hand, the only practical way to conduct an enhanced statewide RMTS is to "piggyback" onto a State's

[61] Case management activity is likely to fluctuate over the course of a month. Therefore, if data from each worker are not collected for a month, some sort of sampling method must be implemented to assure that observations are predictably distributed over the month and can collectively represent the month's activity.

existing RMTS, because of the training and infrastructure requirements.[62] As discussed in Chapter 5, a personnel activity report or time log that requires continuous recording of all activity is subject to error because of omitted events and recall error when recording is delayed. Interviews and surveys can be less burdensome than daily time records, but a 30-minute survey would interrupt work far more than a typical RMTS with brief observations spread out over time. Moreover, there is a substantial potential for error in asking workers to recall or estimate the time spent on past activities. Error would be particularly likely if workers were asked to reconstruct all of the time that they spent on a case of a particular type, or to estimate the share of their time spent on different case types. Interviews, surveys, and observation of work are more feasible methods for estimating the time to complete specified tasks than for estimating the time per case by case type. For any new data collection, the only feasible year will be the year of the study.

Sample Sizes

The design of a study based on Option 4 would have to address several questions of sampling design:

- What is the desired level of precision for estimates of the difficulty index?
- What is the expected approach, and how does it affect the sampling design?
- What are the case types of interest? For how many case types will the difficulty index be estimated, and what proportion of the caseload falls into each type?
- Given the approach, the case types, and the expected level of precision, what is the required sample size for a simple random sample of cases?
- What is the size of the design effect from clustering cases within States and (if necessary) within offices or individual workers?
- Based on the tradeoffs in the sample design, what is the optimal number of cases observed per State, and how many States would thus be required, assuming random sampling of States?
- Is it feasible to collect the difficulty data in a random sample of States?
- What States have extant data that could be used? How representative are these States?
- If new data are to be collected in a non-random sample of States, what are the types of States that should be represented in order to permit adjustment for State effects? To adjust for State characteristics that appear to affect the difficulty index, State-level estimates could be post-stratified and weighted up to national estimates to account for the proportion of all States with the relevant characteristics.

While these questions could be answered in an ideal context with arbitrary assumptions, several unknown parameters would be needed to provide more realistic answers. The first parameter is the choice of approach. One would need to determine whether the approach requires existing data that are only available in some States, and how many such States there are. The sample design would then be built around what would be feasible to do in some or all of those States. The choice of

[62] States use automated systems or networks of supervisors to distribute and collect RMTS forms. Staff are trained to complete RMTS forms by local supervisors or trainers. A similar infrastructure would be needed for any time study.

approach would also affect the difficulty of getting States to volunteer and the trade-offs between recruiting costs, data collection costs, and precision.

A second key parameter is defining the case types of interest. In such an analysis, the smallest (least frequent) case type determines the size of the overall sample. This constraint can be eased if it is possible to stratify and oversample, but the case types must be specified in advance to do so. Interviews with experts and exploratory research in local offices would be useful ways to narrow down the long list of possible case types to the top priorities. Exploratory analysis of aggregate data (Option 1) would also be helpful.

The third parameter is the number of dimensions on which controls for State differences are needed. In this context, it does not matter if the States are high or low on a general scale of efficiency, only whether estimated differences in difficulty between case types are biased. Bias would occur if there were systematic unobserved differences in the difficulty index among States and the data were observed in States that disproportionately represented groups of States with a high or low difficulty index for one or more case types, relative to the national average. For example, it may matter whether FSP-only cases are handled by FSP-only workers or by multi-program workers. The former could have more experience with FSP tasks and therefore be more efficient, in which case those tasks would take less time for FSP-only cases than for FSP/TANF cases handled by multi-program workers.[63] This difference might not appear in a State where all workers are generalists. Ideally, the proportions of States in the sample with and without FSP-only workers would be approximately the same as the national proportions, so that the sample would be self-weighting. If this is not so, and the proportions are known, the observations can be post-stratified and weighted.

The challenge, however, is knowing which differences among States might need to be taken into account in selecting and recruiting the States, and in the analysis. One could specify the criteria on the basis of conventional assumptions about the generally important differences among States, such as size, region, population density, and case mix. It would be preferable to base this plan on empirical information about variation in approaches to certification and the distribution of States on these dimensions. This is one of several questions identified in this report that could be addressed with a survey of States, as discussed in Chapter 9.

Finally, it is necessary to establish assumptions about the acceptable level of precision and the approximate level of effort for the study. The precision standards for RMTS require a sample of 2000 or more per State; accepting less precision would greatly reduce the sample size and the level of effort. If separate estimates of difficulty indexes by State are desired, in order to post-stratify and weight for the computation of difficulty indexes to be used for national estimates, the sample size requirements will be a multiple of what would be needed if data could be pooled across States.

A realistic assumption on the level of effort that could be supported by FNS funding would be needed to develop a feasible design and estimates of the level of precision that could be possible. As a point of reference, the FSP certification cost study cost $1.3 million in 1989; this figure represents $2.3 million in current dollars. Data were collected in 10 local offices in each of four States for a month, and over 100,000 events were recorded. Even at this scale, data were pooled across States to assure

[63] In the interviews, FNS officials noted that some States assign new workers to FSP-only cases, then assign multi-program cases once the workers have more experience. In this scenario, it is likely that FSP-only workers would be no more efficient, and possibly less efficient, than multi-program workers.

adequate power to detect the effects of case characteristics on time per task, which were often quite small even when significant. A study using existing time-use data would be expected to be less costly; by how much would depend on many factors.

Data for Option 5

Option 5 requires the data for Option 2 (eligibility worker hours and wages) plus aggregate data on the frequency of tasks by case type, some data on the time per task by task, and the FSP share of time by case type. Under the All States version of this option, data would be collected to estimate the time per task for every State. Under the Subset of States version, time per task would be estimated for a sample of States and used to estimate a difficulty index for each task, analogous to the case difficulty index estimated in Option 4. Finally, under the National Averages version, the national average time per task would be estimated using pooled State data on eligibility worker time per case. Unlike the other versions, the National Averages version obtains the time per task by estimation, rather than by measurement. All three versions would compute the frequency of tasks by case type for each State. In the likely scenario that the existing data for Option 3 are too limited, Option 5 (like Option 4) offers a way to reduce the scope of data collection needed to estimate the parameters of interest. This option requires the key assumption that time per task does not vary by case type, as discussed in Chapter 4.

The All States and Subset of States versions of Option 5 require data on time per task. The feasibility issues for collecting these data are the following:

- Extant data on eligibility worker time per task are not available for all States, and there is good reason to expect that few States collect such data on a regular basis. Therefore, some form of new data collection would be needed for the All States version. If no States have these data, or if the States that do are too atypical, new data collected would be needed for the Subset of States version.
- Among the potentially feasible methods, time studies of actual task performance would provide the most valid measures of time per task, but other methods would have less burden on State personnel and cost less to implement. These other methods include surveys, interviews, and observation of work. Time studies would be feasible for the Subset of States version; the only practical approach to the All States version would be a survey of States or interviews with State experts.
- In selecting an existing data source or designing a new data collection on time per task, the tasks must be defined so that frequency data can be obtained for all States. This may require aggregation of tasks as measured in the time data.
- The National Averages approach eliminates the need to collect time per task data, but it would be limited to the tasks identifiable in extant counts or the QC microdata. This approach also would not support analysis of differences in time per task across States.

All three versions of Option 5 require State-level data on the frequency of tasks by case type. The feasibility issues for these data are the following.

- There are important trade-offs between the level of detail in defining tasks and the feasibility of collecting data on time per task and task frequency. Extant task counts (from FNS-366B

reports) and available Quality Control (QC) microdata define tasks in broad terms, making the tasks more varied (in terms of task characteristics that are likely to affect worker effort). State case records may provide much more detailed task counts, but there is substantial uncertainty about whether these counts would be consistently defined across States and feasible to collect for this purpose. Also, the appropriate level of detail for task definition depends on the data collection method: a simple set of tasks would be better for a RMTS, to avoid classification errors. Only the QC data differentiate tasks by their outcomes in terms of accuracy and timeliness.

- With respect to the ability to estimate task frequency by case type, there are also trade-offs among data sources, with extant task counts providing very limited detail, QC microdata providing much more detail, and case records providing the most detail.
- Estimating the actual FSP cost share by case type would require data on State cost allocation rules. These data could be collected as part of a survey, but retrospective data collection for more than a few years would be difficult and possibly unreliable.

These feasibility issues are discussed below.

Data for Time per Task Estimates

The All States and Subset of States versions of Option 5 require collection of data on the average time per task for the tasks of interest. The ideal data on time per task would be an automated record for every task, but obtaining such records would be too intrusive to be feasible. As noted in Chapter 4, time per task for each State could be estimated in several different ways:

- using extant data from States where RMTS or personnel activity report data include indicators for the task, or could be merged with case records indicating the task performed at the time recorded
- conducting a new time study, using an expanded RMTS or event logs
- a worker survey, process observation, interviews with key informants, or some combination of these "low impact" approaches with less burden on individual workers than a time study.

The choice among these alternatives would depend on (a) the availability and quality of the extant data, (b) the number of States to be included (all States or a subset, size of subset), (c) the expected quality of new data, and (d) the feasible level of cost and burden for the study.

It is clear from the interviews for this report that extant data on eligibility worker time by task are not available for all States, and the number of States with such data is likely to be small. None of the four States collected data on eligibility worker time by task as part of its time measurement for cost allocation. Measurement of eligibility worker time for the FSP and other income maintenance programs appears to focus on what is required for cost allocation; i.e., identifying the program combination being served. The only functional differentiation for the FSP is between functions for FSP reporting (e.g., certification *versus* employment and training). Thus, extant data will not support the All States version of Option 5.

A survey of States would be needed to determine whether extant data might support the Subset of States version. As of now, we suspect that no State has the requisite data. In part this is because,

Federal and State officials emphasized the importance of keeping time measurement as simple as possible, to reduce chances for error and to minimize the burden on workers and the cost of processing the data. Differentiating time by task is not necessary for cost allocation and thus would appear to be a low priority for ongoing time measurement. The lack of extant data would increase the cost of Option 5 and would also make it unlikely that multiple years of time per task data could be collected.

The basic alternatives and issues for collecting new time use data for Option 5 are the same as those discussed with regard to Options 3 and 4. The time study methods include RMTS merged with case data identifying tasks; expanded RMTS and event logs. Less data-intensive alternatives include interviews, worker surveys, and observation of work. An advantage of new data collection would be that it can be designed around the set of tasks for which frequency data by case type for all States will be obtained. The ideal set of tasks for measurement may be more detailed, because components of a major task (e.g., initial certification) occur at different times. This set of subtasks as measured in the time data must be structured so that it can be aggregated to the major tasks in the frequency data.

For the reasons given in the section on Option 3, it does not appear feasible to conduct primary data collection from eligibility workers in all States with sufficient samples for State-level estimates. It also does not appear feasible to merge RMTS data with case records in all States.

The only practical way to implement the All States version of Option 5 would be to survey the State Agencies or interview a small number of experts in each State to obtain their estimates of the average time to complete each task. The respondents could be managers or trainers representing the entire State. These experts would have to be familiar with variations in procedures and other factors that might cause differences in time per task among local offices. Comparability of estimates across respondents can be improved by breaking the task down into simple, discrete steps. This method has been used at the State level in a study of WIC cost containment practices (Kirlin et al., 2003) and at the school district level in the School Lunch and Breakfast Cost Study II (Bartlett et al., 2008). Interviews would also need to address the time that eligibility workers spend on activities that are not case-specific (meetings, training, breaks, etc.) but such data are likely to be available to respondents from existing RMTS or personnel activity reports in most States.

The precision and bias of these estimates would be unknown, but the cost would be modest and the data might be useful for exploratory analysis. The great appeal of the All States version is that it might offer the ability to compare time per task across States—which the other versions cannot do. While the individual State estimates could be used for exploratory analysis, there is real uncertainty about the level of accuracy for interview-based estimates and the validity of the methodology for State-level comparisons. There would be more confidence in conclusions based on time estimates from State surveys or interviews if they were validated by actual time-use data from a subset of States—i.e., by combining the All States and Subset of States versions.

Among the sources based on actual measurement of eligibility worker time, the least burdensome on workers would be to merge existing RMTS data with case records and identify the task for the observation from the case record. Some case records might identify steps in major tasks (e.g., initial screening for certification); others may only indicate the major task (initial certification, recertification, periodic report, interim change, termination). In principle if this approach is feasible, we would approach the ideal data on time per task by case type. However, further information and analysis would be needed to determine whether RMTS samples would be sufficient for estimating

average time per case per task by case type, and how many quarters of data would be needed. Pooling RMTS data across quarters would require access to case records for every month, substantially increasing the cost of data processing for both the State and the researchers.

Event logs, other daily time reporting forms, surveys, and interviews have all been used successfully in small groups of States, as previously discussed. Event logs or other daily time reporting forms can provide richer data and may be less subject to recall error and "guesstimation" error than surveys and interviews. For estimating time per task, daily time reporting could be done over a shorter time interval than for time per case, and data could be recorded for selected days spread out over several months to reduce the intrusiveness of the study. The difference in accuracy between time reporting and surveys/interviews is likely to be smaller for estimates of time per task than for estimates of task frequency or time per case, because task frequency and time per case would require recall over a much longer period. Thus, surveys and interviews are more suitable for Option 5 than for other options. Surveys may be less burdensome than time reporting, and interviews with experts (such as supervisors) are the least burdensome approach. Ultimately, the choice of data collection method would depend on a trade-off between (a) the expectations for the quality and richness of the data and the analysis it will support, and (b) the acceptable level of cost and burden, on the other.

Task Frequency Data

Ideal data would define tasks as homogeneous steps with defined outcomes (on-time vs. late, accurate vs. with error), as discussed in Chapter 2. There are data that are feasible to obtain for the three versions of Option 5, but they are less than ideal.

As noted in Chapter 4, there are four ways to estimate task frequency by case type for a State:

- combine records of individual tasks with the characteristics of the affected case from computerized case records (as described below);
- impute incidence of tasks from comparisons of case records over time, and combine this information with case type information from the case records;
- estimate the frequency of identifiable tasks by case type using Quality Control sample data for each State (which identify active cases with initial certification, recertification, or no certification action in the sampled month); or
- use the task counts reported by the States on the FNS-366B report, which includes counts of initial applications approved, applications denied, recertifications, and terminations. These counts are broken down between households with and without public assistance.

The most comprehensive data source is State case records, which identify all activities affecting eligibility and provide even more details on case characteristics. What can be done with State case records will depend on the data in those records, the resources for the study, and the cooperation of the State. In a State where all worker tasks are done on-line, the computerized eligibility system has a record of each task and the affected case. Using case type information, the frequency of tasks by case type could be determined.[64] The accessibility of these records is unknown and would have to be

[64] Some State systems may generate such reports routinely or on request, but it seems unlikely that the case type breakdown would be sufficiently detailed.

determined by discussion with the State. If a State only has a record of the status of a case in each month and the reason for the most recent change in status, one would have to impute the frequency of tasks; this might be limited to major tasks that affect the status: initial certifications, recertifications, terminations, and possibly periodic reports.

Quality Control (QC) public-use microdata could be used to estimate the frequency of certifications and recertifications by case type, for a much richer set of case types. Summary data from negative action QC reviews would provide the frequency of denied applications, involuntary terminations, and suspensions of cases.[65] (Denials are also reported in the FNS-366B.) It appears, however, that there is little useful information in QC data on other actions.[66]

States report the frequency of certifications and recertifications annually on the FNS-366B report. Certifications are broken down into 12 subtotals, based on three dimensions: initial (nonexpedited) versus expedited; public assistance (PA) versus non-public assistance (NPA), and approved versus denied versus overdue.[67] Recertifications are broken down into 6 subtotals, base on the dimensions of PA versus NPA and approved/denied/overdue. Annual totals of FNS-366B data could be obtained from the FNS National Data Bank. We have limited information on the quality of these data. One known and significant problem is that the reporting period for the 366B report is the State fiscal year (normally July through June), not the Federal fiscal year (October through September) used for expenditure reporting. This problem might be mitigated by analytic techniques (e.g., smoothing with monthly participation data) but it would certainly introduce a source of error. Another issue identified through contacts with FNS is that there are some apparent inconsistencies in the definition of PA cases. States are supposed to report households as PA if they are categorically eligible for the FSP on the basis of receiving any TANF benefit, but some States appear to exclude households receiving non-cash TANF benefits.

Thus, there is a clear trade-off between the richness and quality of the task frequency data and the effort to collect and analyze the data. The FNS-366B data provide only the differentiation between PA and NPA (and expedited versus nonexpedited for certifications), but these data exist in an aggregate national database of exact counts. The QC database is richer in case type detail but does not include denied cases and requires more resources for tabulating the measures of interest. Collecting case records from all 50 States would be a major undertaking, both for FNS and for the States, because of privacy issues as well as burden and computing resources. Thus, FNS sources would be the only feasible ones for the All States and National Averages approaches to Option 5. State case records could be use, however, for the Subset of States approach. Tasks and case types in State data would have to be mapped to national datasets (366B or QC) to generalize from the subset of States to all States.

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65 Microdata for QC negative action reviews exist but would not be useful. First, these data do not have the case characteristics found in the active case data. Second, these data are not cleaned and prepared for analytic use.

66 When monthly reporting was common, the QC data identified cases with monthly reports. In 2001 and possibly some prior years, there is an indicator for interim changes, but this indicator is not present in data for 2002 and later years.

67 "Overdue" applications are neither approved nor denied during the reporting month.

FSP Share of Eligibility Worker Costs

The FSP share of costs for a case type can be determined from the applicable cost allocation rules and the percentages of cases of that type with FS-only, FS/TANF/Medicaid, and other combinations of programs. Analysis could assume a standard set of cost allocation rules specifying the FSP share for each program combination (e.g., one-third of costs for FS/TANF/Medicaid cases allocated to the FSP). Otherwise, it would be necessary to determine actual State policies as specified in the cost allocation plan. The latter approach would be preferable if there is real variation in the rules for the allocation of case worker costs across States, particularly if some States serve multi-program cases jointly and others do so separately. Case data can be readily used to compute the percentage of each case type by program combination. We note that if case types are defined solely by program combination, or by interacting program combination with other characteristics, the FSP share for each case type can be determined without any computations.

Summary

We have defined five options for analyzing variation in SAE, including Option 1 (the aggregate regression analysis) and four options for analyzing SAE as the product of eligibility worker time, pay, and "overhead". Of the four options that disaggregate SAE, Option 2 is clearly the most feasible, because the other options require the Option 2 data and more. Option 2 would disaggregate variation in SAE only between eligibility worker time, eligibility worker pay, and overhead. The version of Option 5 based on national average time per task (defined below) is also more feasible than the other options. There are, however, several key caveats about Option 2; these caveats also apply to Options 3, 4, and 5. First, there is uncertainty about whether a consistent definition of "eligibility worker" can be applied to collect comparable data from existing sources in all States. Using total local office labor instead is potentially an acceptable fall-back, but this would complicate the comparisons of pay and benefits. The other key unknown is the level of effort to collect comparable data on eligibility worker time, pay rates, and benefits from State records (and local records, when not available at the State level). It appears that estimates could be collected from most States with relatively modest effort and burden (comparable to the effort per State in this feasibility study), but the effort and burden to assure that these estimates are entirely comparable could be substantially greater. In addition, Option 2 would be more complicated, costly and burdensome in county-administered States and where some eligibility worker functions are performed in call centers. This difference could be modest or substantial, depending on the structure of county and State records, but we do not anticipate that it would be infeasible to include such States in a study based on Option 2.

Option 3 would disaggregate SAE as in Option 2, then estimate eligibility worker time per case by case type for each State. This option would home in on the effects of differences in case mix on eligibility worker time per case. One version of this option might be feasible to implement on a national scale: collecting existing data from the cost allocation process on eligibility worker time for PA and NPA cases from as many States as possible. This approach would not, however, account for differences in other types of income, household composition, and other potentially important case characteristics.

Option 4 would also disaggregate SAE as in Option 2, estimate eligibility worker time per case by case type for selected States, assign each case type a difficulty factor, and use these estimates to compare all States in terms of the difficulty of their caseload and the intensity of eligibility worker effort relative to that difficulty. There are several versions of Option 4 that would be feasible under

certain conditions. This option makes the assumption that the relative difficulty of each case type does not vary systematically by State. Once this assumption is accepted, there are three potential designs, listed below in order of increasing richness of data, cost and burden, with their chief challenges:

- Collect existing data from States that identify case type in their RMTS or activity reports. This approach would only be viable if a sufficiently representative group of States had comparable data. A survey of States or other data collection would be needed to determine this and whether the identified case types would meet the needs for analysis.
- Merge case records with existing eligibility worker time use data to estimate the proportion of time by case type. Issues for this option include: uncertainty about how many States have case identifiers in their time use data, and potential logistical and privacy issues if the researchers have to process original hard-copy time reporting forms in order to obtain the time data with case identifiers. Also, the effort to acquire and process case records sets practical limits on the number of States that could be included.
- Replicate the basic approach of the FSP certification cost study, collecting new time-use data from eligibility workers in a sample of offices within the selected States and matching these data to case records. Such a study could provide data on time by task as well as by case type; thus it would be a combination of Option 4 and Option 5 (discussed below). A full replication of the prior study would be very expensive and burdensome, but would yield very rich data. A smaller-scale version designed only to estimate overall time per task would be more feasible. A key challenge for such a study is assuring that the sample of offices provides sufficiently representative data for national estimates (and State estimates if desired). New time-use data would be limited to the period for which they were collected, whereas extant data would be available for three to five years.

Using eligibility worker time as obtained in Option 1, Option 5 would disaggregate this time into time spent on tasks, permitting separate analysis of time per task (overall) and task frequency by case type. There are three versions of this option that appear to be feasible. All three versions could use existing national databases providing the frequency of major tasks by case type; one version could use more detailed case records from a subset of States. Each version would take a different approach to estimating the time per task. As with Option 4, the choice among these versions involves trade-offs between richness and quality of data, cost, and burden.

- The National Averages version would use a regression model to estimate the national average time per task across States. This option could be implemented on a national scale using FNS-366B data or QC microdata, but the tasks would be limited by these sources, which do not identify case management activities occurring between certifications. (One could define each active case that is not certified or recertified during a month as an instance of routine case maintenance.) FNS-366B data only differentiate PA versus NPA cases and are reported by State, not Federal, fiscal year. In addition, this approach may oversimplify the relationship between task frequency, case type, and average time per case. This approach could be supplemented by interviews with State experts to estimate time per task or validate the results of the regression analysis.

- The Subset of States version would collect time per task data in a small number of States through an existing RMTS matched with case records, a new time study, a worker survey, or interviews with State experts in a subset of States. These data would be combined with task frequency data from State case records or national sources. The details of the approach would depend on the resources available and the expectations for the precision and accuracy of the estimates. Analysis based on State case records would have to be mapped into task categories in national sources to generalize to all States.
- The All States version would collect time per task in all States. While any of the methods for the Subset of States version might in principle be used in all States, only the expert interview method appears practical, considering the costs and burden. Given the uncertainty about the validity of such data for comparisons across States, it would be preferable to combine this version with one of the other versions of Option 5.

All of these options depend to at least some degree on existing accounting records that are at best available for three to five years. As the amount of data requested increases, it becomes more burdensome and less feasible to obtain data for multiple years. Thus, cross-sectional data from these options would have to be combined with more aggregate time-series data to control for State differences and time period effects.

Chapter 7

Decomposition of Reported Expenditures Other than Eligibility Worker Costs

Under Options 2, 3, 4, and 5, the State administrative expenses (SAE) for FSP certification would be divided into eligibility worker cost and "everything else". The latter category includes local labor other than eligibility workers, local nonlabor costs, and State-level costs (excluding any eligibility workers in call centers or other centralized units). As discussed in Chapter 6, the definition of eligibility workers could be broad or narrow; this definition affects the scope of local labor considered part of overhead. The ratio of the cost for "everything else" to the eligibility worker cost would be defined as the "overhead rate". The analysis would explain variation in SAE for certification in terms of the variation in eligibility worker time per case, eligibility worker compensation, and the overhead rate. Separate models would analyze the variation in eligibility worker time per case, eligibility worker compensation, and the overhead rate. Automated data processing (ADP) costs could be included in overhead or modeled separately; for this chapter we assume the latter approach, since ADP costs are separately reported to FNS. We assume that SAE for issuance, employment and training, and nutrition education would be analyzed separately with a different framework (if at all), as discussed in Chapter 5. Thus, these costs are not addressed in this chapter.

Analysis of overhead rates would ideally examine several factors that might contribute to differences in overhead rates across States. One is the level of staffing (i.e., full-time equivalents per case) in other job classifications at the local and State levels, relative to the eligibility worker staffing level. This level might reflect factors outside the control of the State agency, such as State budgets or population density;[68] the overhead staffing level may also reflect cost-sharing across programs, organization, management, the amount of oversight and support for eligibility workers, and the level of client service provided by staff other than eligibility workers. Another key factor is the cost of facilities, including rent or depreciation, furnishings, utilities, and operations and maintenance. In particular, rent or depreciation for office space may vary substantially, depending on the location, age and condition of the facility, and whether it is owned or leased. Utility costs also may vary by location. All facility costs also depend on the amount of space per employee; agencies facing a high cost per square foot are likely to use less space per employee than those with low facility costs per square foot.

In this chapter, we discuss the data sources for decomposing reported certification expenditures to analyze variation in the overhead rate and the costs identified as "everything else" across States and over time. We begin by defining what is included in "everything else" and what information might be desirable for analysis. We then discuss the sources, process, and feasibility issues for collecting the desirable information. We also discuss the sources, process, and feasibility issues for the data needed to analyze variation in ADP costs.

[68] State interviews and other sources suggest that there are minimum levels for management and support staff in local offices. These fixed costs may increase overhead in largely rural States, relative to more urbanized States where management and support staff are spread over more eligibility workers.

Defining the Overhead Rate

As discussed in Chapter 5, we assume that the certification cost to be analyzed will include, at a minimum, the expenses reported to FNS in the certification, unspecified other, and outreach categories. A broader definition might include the fraud control, fair hearings, management evaluation, and quality control expense categories. Data processing costs might be added, but separate analysis of these costs is likely to be more productive and is discussed in this chapter.

The first step in defining the overhead rate is defining the "eligibility worker" cost. As discussed in Chapter 6, this could be defined on the basis of one or more job classifications, or on the basis of who interacts directly with clients and is counted in the RMTS or activity reports. As an alternative, the total local certification labor cost would be used in place of the eligibility worker cost. In States where call centers or other centralized units have a significant role in certification, the total certification cost would include these centralized units, and the eligibility worker cost would include those workers whose jobs were analogous to the eligibility workers in conventional local offices.

Under these assumptions, "everything else" is the difference between the total certification cost and the eligibility worker cost, and the overhead rate is the ratio of "everything else" to the eligibility worker cost. An alternative measure for analysis would be the overhead cost per FSP household, obtained by subtracting the eligibility worker cost from the total certification cost. At the local level, labor costs that are not included in the eligibility worker cost would be part of the overhead rate, along with local nonlabor costs and all State-level costs included in the certification cost measure defined for analysis.

Concepts for Decomposing the Overhead Rate for Analysis

In general, the objective of computing the overhead rate for certification is to permit analysis of how much this rate varies, how much the variation contributes to overall variation in SAE, and what factors explain the variation. This analysis could be done using the total overhead rate as defined above. Understanding the extent of variation in the total overhead rate would be an important first step, and this analysis would provide insight into the potential value of obtaining more detailed data. We expect that it also would be desirable to analyze the components of the overhead rate. Several breakdowns would be useful, individually or in combination. Ideally, the overhead rate would be decomposed into at least four components: local labor, local nonlabor, State labor, and State nonlabor. Further breakdowns of nonlabor costs would also be useful, especially differentiating facilities costs from other nonlabor costs. Further, it would be useful to break down State labor between client service functions and oversight functions.

Labor versus Nonlabor

One of the potential explanatory factors is the ratio of "other" labor to eligibility worker labor. Another potential factor is relative pay rates—although if the pay rates for overhead staff and eligibility workers are highly correlated across States, then this factor will explain little the variation in the overhead rate. Therefore, it would be useful to separate the labor and nonlabor components of the overhead rate, and to estimate the ratio of "other" labor hours to eligibility worker hours. The latter ratio would require data on the "other" labor hours, or on pay rates for these personnel.

Local versus State

The factors affecting overhead may be different at the local level than at the State level. As noted previously, population density may be a factor affecting local overhead but is less likely to affect State-level overhead (except for travel costs and time in States with far-flung offices). There may be a trade-off between local and State overhead: States where the FSP is county-administered would be expected to have more of the former and less of the latter than where the FSP is State-administered. Local offices may be more specialized, serving fewer programs, than the State agency, so the impact of cost-sharing and cost allocation rules may be different at the two levels. For example, a State might have separate local offices for public assistance programs (FSP, TANF, Medicaid eligibility, energy assistance), child support enforcement, and child welfare programs, while all of these programs are administered by the same State agency.

Types of Nonlabor Costs

It would also be useful to decompose the nonlabor component of overhead among types of expenditures. Rent or depreciation is a potentially key type of nonlabor costs to analyze, given the expectations about geographic variation discussed in Chapter 2. Another key type comprises costs related to computer systems and telecommunications that are part of certification nonlabor costs, not reported separately as ADP costs.

State-Level Functions

As discussed in Appendix A, State-level costs include two broad functions that may be useful for analysis: client services not included in the eligibility worker cost (such as information hotlines, fraud control and fair hearings); and oversight (policy, management of local operations, and statewide administration). The latter category includes quality control and management evaluation, which could be broken out if desired. Data processing and telecommunications are also State-level functions (except where the FSP is county-administered and this function is shared between State and county levels). ADP costs are reported separately; telecommunications may be included in ADP, other reporting categories, or some combination of categories.

Data for Decomposing Overhead Costs

In principle, data exist to decompose FSP costs by organizational unit (local offices, State FSP director, State field operations oversight unit, etc.) and by object of expenditure (labor, supplies, communications, facilities, etc.). These data reside in the accounting systems used to generate State expenditure reports. However, the accessibility of the information and the effort necessary to compile it are uncertain and may vary substantially from State to State. An important resource for understanding SAE is the State Agency public assistance cost allocation plan (PACAP). Thus, the data sources needed to decompose and analyze overhead costs include the PACAP and the accounting data in support of SAE reports. In addition, pay rate data for overhead personnel would be needed for some analyses. Below, we discuss sources and methods for obtaining these data.

Cost Allocation Plans

Each State's PACAP specifies the cost pools, the purpose for which the costs in each pool are incurred, the programs that benefit, and the method by which the costs are allocated. Thus, it can

provide a road map for defining what data are needed to decompose the overhead costs and how they map into the standard categories. The PACAP may need to be supplemented by other documents with the desired detail on costs outside the State Agency that are shared, and some State Agencies may have multiple cost allocation plans for their own costs.

Our research for this memorandum suggests that PACAPs can be collected, but there are a number of practical challenges with obtaining and using cost allocation plans for research. First, they are large and complex documents, and thus they are burdensome for State staff to copy if a spare copy is not available. Because of the size of the plans, locating information can be time-consuming. Obtaining the plans in electronic form may be helpful, if the electronic document is available and searchable, but this will not be the case for all States. Second, cost allocation plans are frequently revised, and revisions may be produced as addenda rather than a complete new document. Thus, one may have to review multiple addenda in order to gather information on all of the cost centers in the plan. For one State in this study, the complete cost allocation plan with addenda makes a stack of documents six inches high. Access to State officials with in-depth knowledge of the plan may be needed to clarify the plans or the documentation of costs. These were not significant issues in this small-scale study, but they could be more important in a study that sought to collect cost allocation plans for a large number of States.

Accounting System Data

The key feasibility issues for collecting data from State cost accounting systems, as discussed below, are:

- Desired breakdowns of costs may be easy or difficult to obtain from existing documentation, depending on how FSP SAE is computed. Breaking out specific types (objects) of nonlabor costs is likely to be challenging.
- The feasibility of computing desired summaries from the detailed data in accounting systems depends on the capabilities of the accounting system and the cooperation of State officials.
- Accounting data should in principle be retrievable for the past three to five years, but in practice retrieval can be complicated by the need to access archived data and the volume of data needed.
- Decentralized accounting data pose challenges and opportunities where counties operate the FSP under State supervision.

States use two basic types of systems for tabulating and allocating FSP administrative expenses. This process may be fully automated as part of the accounting system, or it may utilize spreadsheets that are compiled manually from accounting reports. Spreadsheet data are easily transmitted electronically, and formulas can be used to clarify how totals are computed and how steps in the process are related. Accounting system reports may be available electronically or only in hard copy. Specialized software may be needed to analyze accounting data, and documentation may be needed to determine formulas for computations.

We obtained documentation of costs allocated to the FSP from three States interviewed for this memorandum. The process was simple and required little time for the data collector or the State. Documentation was available in spreadsheets or computerized reports. The format of the

documentation varied substantially, but it was clear and could be followed with the help of the cost allocation plan. The researchers have collected and used similar documentation in other studies (e.g., determining indirect costs for issuance, as part of Logan et al., 1994).

This documentation provides a wealth of information on the allocation of costs to the FSP and other programs. Typically, it provides the total for each cost pool (such as local office operations), the percentages used to allocate the costs, and the dollar amount allocated to each program. For some cost pools, however, the allocation is to other multi-program cost pools, so the percentage and amount for the FSP cannot be directly determined. One can, however, trace the allocation to determine the percentage from another step in the process.

While it appears that breakdowns of FSP SAE by cost pool are readily available, it is may be more difficult to break down these expenses by object (type) of expenditure, such as separating personnel costs from nonpersonnel costs. If a cost pool is defined so that it is limited to personnel or some other object, then the FSP cost for individual objects can be readily determined. But cost pools often include multiple objects.

As a particularly important example of this issue, the FSP expenditure for local office facilities may be easy or difficult to obtain. This depends first on whether there is a separate cost pool or line item for this expenditure in the reports or spreadsheets used for cost allocation. If this first tier of documentation does not break out facilities costs, then additional documentation will be needed. The State agency might have a single total for all facilities costs, including State and local facilities; if so, one would need to impute the local share, based on FTEs or a similar method. Again, it is conceptually possible, but more information is required, and the burden on the State to provide the information is greater. Finally, the "facilities" cost in the readily available documentation may be only a total, or data may be available to separate rent or depreciation, furnishings, utilities, and maintenance. While a descriptive analysis of variation in total facilities costs would be insightful and could use a general cost of living measure as an explanatory variable, it would be preferable to break out specific costs, such as rent or depreciation, which could be compared to appropriate State or regional indexes of cost.

While existing documentation is variable and may not provide the desired information, some accounting systems are structured so that they can produce reports or data extracts that would permit a summary of FSP SAE by object, so such an analysis might be feasible on an exploratory basis. A caution here is that providing information that is not tabulated routinely will likely require more time from State accountants or other professionals, thus increasing the burden and the challenges of obtaining the data.[69] Another potential issue is that output files from the accounting system may be available, but extensive documentation or special tools may be needed to process the information.

As with the documentation for worker time use, States are required to maintain the supporting documentation for the allocation and reporting of administrative expenses for Federal programs for at least three years after the close of the fiscal year. Information may have to be retrieved from archives, but this does not appear to be a problem for the typical State. Changes in accounting systems, computer crashes, and other disruptions could nevertheless pose a problem. Another issue is

[69] We learned that some FNS Regional Offices obtain and analyze detailed data extracts from State accounting systems for financial reviews. One possible solution to the problem of obtaining the right level of detail in documentation would be a collaborative effort by FNS Regional Offices and researchers.

that the documentation may be maintained on a quarter by quarter basis, with only incremental and summary information for the final year-end report. Thus, to do an analysis of cost composition for five years, one would likely have to compile 20 quarters of data plus year-end adjustments, with numerous pages for each quarter. The cost of retrieving and copying or printing this information would be non-trivial but still small relative to conducting a large-scale survey of hundreds of workers.

There are special challenges and opportunities for obtaining breakdowns of SAE in States where the FSP is county-administered. The challenge is that the desired detail for local costs may be available only on a county-by-county basis; thus collecting and tabulating this information in a State with 50 or more counties would be a considerable effort. The extent of the effort would depend on how counties report expenses and how the State combines them across counties. This information could be obtained by contacting the 10 States that operate this way. The opportunity is that local costs are reported for each county, so one could examine variation in the ratio of non-eligibility worker costs to eligibility worker costs within a State. This ratio might vary depending on case mix, office size, or organizational structure (e.g., a "pure income maintenance" agency versus a broader "human services agency"). While the data would be State-specific, the analysis would have broader implications and would be particularly useful for an exploratory study.

Data on Non-Eligibility Worker Time and Pay

Analysis of the local labor component of the overhead rate would ideally decompose the variation in this rate into two parts: (1) variation in the ratio of local overhead labor hours to eligibility worker hours, and (2) variation in the ratio of local overhead labor pay to eligibility worker pay.[70] The first of these ratios is of particular interest, since it reflects the level of supervision and support, and may also reflect economies of scale (FSP cases per office) and scope (sharing of fixed staffing costs, such as office managers, across programs).

This analysis could be extended by further breaking down the local labor overhead component between supervisory personnel (including office managers) and support personnel. Such a breakdown would allow comparisons of the ratio of supervisory personnel to eligibility workers and separate comparisons of the ratio of support personnel to eligibility workers. High or low ratios for these two measures would have different implications. A high supervisor/eligibility worker ratio might be observed where there is high turnover of eligibility workers, or where there are more layers of management. A low support/eligibility worker ratio might be observed in a highly automated agency. Separate hours and costs for supervisory and support personnel would also allow more insightful comparisons of pay rates. A similar analysis could decompose the State labor component of the overhead rate or its subcomponents. Such analysis would require data on labor hours, pay rates, or both for the labor categories of interest.

There are two possible data sources for overhead labor hours: accounting data and staffing data. While the numbers obtained from these sources will be similar, they will not be identical. Staffing data might provide counts of authorized positions in each job category, or ideally would represent counts of filled positions at a point in time (i.e., excluding vacancies and personnel on extended

[70] The local labor component of the overhead rate (LLO) is the ratio of local overhead labor cost to eligibility worker labor cost. It can be shown by simple algebra that LLO is the product of (a) the ratio of local overhead labor hours to eligibility worker hours and (b) the ratio of local overhead labor pay to eligibility worker pay.

leave). Accounting data represent the actual staff time for which the agency pays. In principle, the accounting data in support of SAE reports include the pay for overhead labor, and this pay can be traced back to determine the number of hours or full-time equivalents. In practice, this process could be simple or difficult, depending on how the costs are classified and tabulated. As an alternative, one could collect overall staffing data and estimate the overall ratio of local or State overhead hours to eligibility worker hours. Such data were readily available from the four States interviewed for this report.

Where the distribution of eligibility worker time is used to allocate the overhead staff time, the FSP ratio of overhead to eligibility worker labor will be identical with the overall ratio. Elsewhere the use of the overall ratio of overhead to eligibility worker hours might not be a good proxy, in particular where other programs sharing overhead staff use a different type of front-line worker (e.g., social workers or job placement workers). This problem could be overcome with additional data on staffing and staff roles. Staffing data could also be used to separate support and supervisory/management staff hours.

For pay rates, the possible sources are payroll records and pay schedules. As discussed in Chapter 6, these sources have different advantages and disadvantages. Payroll records provide averages of actual pay but are sensitive and more difficult to obtain. Pay schedules are easy to obtain for multiple years but provide only the theoretical range of pay and thus do not take into account the actual distribution of personnel along the pay range. In this context, payroll records could potentially be used to compute both hours and pay rates, but this would be feasible only where the State has already created the necessary reports or is willing and able to do so. It is quite possible that the ratio of overhead staff pay to eligibility worker pay does not vary much (particularly if overhead staff are divided between supervisors and support staff); if so, it would not be worthwhile to devote much effort to obtaining data on overhead staff pay.

Unlike eligibility worker labor, overhead labor is by definition heterogeneous and therefore cannot be compared to a specific private-sector occupation for analysis of the portion of variation attributable to labor market forces. There are three ways to overcome this problem.

- If the overhead labor time and cost are broken down by job classification, some or all of the job classifications may have reasonably comparable private-sector counterparts.
- The average cost per hour for overhead labor could be normalized by a general measure of the cost of living or State wage levels.
- An index for normalizing the overhead labor cost per hour could be constructed using benchmark occupations that have similar duties and qualifications as typical overhead jobs (receptionist, office manager, bookkeeper, etc.). Staffing data from a few States could be used to establish reasonable weights for the occupations.

The choice of data sources for overhead worker hours and pay would depend on the technical considerations (as discussed above) and on resource constraints. A more fine-grained approach would require more effort by the researchers and by the States providing the data. Depending on the resources available and the degree of interest, the simplest methods could be used, more data-intensive methods could be used in a small number of States, or such methods could be used in all States.

Methods for Obtaining Data for Decomposition of Overhead

In addition to data sources, the choice of methods must be considered in assessing the feasibility of decomposing overhead. Three different methods could be used, each with its advantages and disadvantages. The choice would depend on the resources available and the desired data. These methods are summarized below, in order of increasing effort.

- A survey of States would be the simplest approach. Such a survey would specify and define the data of interest. States would use their accounting data and other sources to provide the specified data. This approach would be best suited to the simplest data requirements. While the initial data request requires little time, once the survey has been developed, follow-up to obtain data and assure quality can be very time-consuming.
- For more in-depth data, the approach used in this study would be preferable: a combination of written communication, discussion of data needs or formal interviewing by telephone, and transmission of documentation or data files to be abstracted. Obtaining documentation is typically an iterative process of stating the request, learning what might be available, agreeing on the way that the request will be met, reviewing the initial response, and finalizing the data.
- For the most complex data collection, the preferred approach would be to discuss data requests and, to the extent possible, obtain and review data on-site. This approach is best when extended discussions are needed, or there is a need to negotiate a data-sharing agreement, or it is desirable to review the documentation to determine what will be most useful. While this approach entails travel costs, it may be more efficient and quicker than collecting data from a central site.

Data for Analysis of Data Processing Costs

It would clearly be of interest to estimate ADP investments and ongoing expenses and their ability to save labor cost. Our recent study of FSP costs and error rates indicated that ADP costs represent about 7.5 percent of all SAE; it also suggests that estimating the relation between ADP costs and labor costs will be challenging, as evidenced by the lack of relationship between ADP costs and error rates (Logan, Kling, and Rhodes, 2008). Our expert contacts for this study suggest that State-specific and project-specific factors have particularly large influence on development costs for new ADP systems. Nevertheless, there is strong interest in greater understanding of the variation in ADP spending and its possible connection to productivity and performance.

In order to compare State spending on ADP and analyze variation in this component of SAE, it would be desirable to collect data on the composition of ADP spending. Such data could allow costs to be normalized for differences in pay rates and other uncontrollables. Discussions with States and review of the documentation suggest that the expenditures for ADP systems include:

- State and contractor personnel for development, maintenance, operations, and user support
- leases or depreciation of hardware
- leases or amortization of software
- telecommunications usage charges
- facilities costs for computer centers

SAE reports separately identify ADP development (i.e., spending to implement new systems) and operations, so ADP costs can be separated along these lines.

We would expect that ADP expenditures would affect worker productivity (and thus labor costs) in two ways: through the level of investment (i.e., the stock) and the current level of resources represented by the operating costs. The level of investment might be determined from the history of past ADP development costs, possibly adjusted for depreciation. Standard economic approaches to investment (e.g., distributed lag models) might be useful for this line of analysis. The features of the ADP system are likely to be related to both the system's costs and its impacts on productivity. Further investigation would be needed to develop an appropriate data collection and analysis strategy to address these issues, and to develop hypotheses about other factors that may affect ADP system costs and effectiveness. Part of this investigation might be an in-depth study looking at specific projects. As discussed in Chapter 5, FNS is currently renovating and updating a database on State ADP systems that could be useful.

It appears that a substantial portion—perhaps a majority—of the costs identified as "data processing" in FSP cost reports are actually personnel costs. Thus, in addition to decomposing ADP costs by type, it would be useful to obtain data on ADP personnel hours and pay rates. While ADP staff pay rates would be expected to vary across States along with labor market conditions, the nonlabor costs would not, because the market for these goods and services is national (except for facilities).[71]

Obtaining comparable data on the composition of ADP costs will be challenging because of the diverse ways in which State FSP agencies obtain ADP services. As discussed in Appendix A, there are three models of ADP operations:

- The FSP agency operates a computer center in-house with State personnel
- The State has a computer center, operated by State personnel, serving the FSP agency and other agencies
- The FSP agency or another State agency contracts with a private firm to provide computer processing services.

In all of these scenarios, the ADP cost charged to the FSP is a share of the total operating cost of the computer center (plus any FSP-specific costs, such as personnel responsible for FSP computer programs). As with other cost pools, it may be necessary to go through two or more layers of documentation to obtain the breakdown of costs. For computer centers not operated by the FSP agency, this problem is likely to be more challenging, and the need to obtain cooperation of an outside organization (particularly a contractor viewing costs as proprietary) would add to the difficulty. One would want to determine whether the variation in ADP costs is sufficiently important to justify the effort.

Another source of data for analyzing variation in ADP costs is State cost allocation plans. As previously discussed, these plans identify the cost pools, the programs they serve, and the methods used to allocate costs. One interesting question that could be addressed with cost allocation plans (or

[71] In fact, States can contract out portions of their personnel requirements, such as programming, to firms operating in lower-cost locations, to the extent that State procurement laws and policies allow.

a survey of States) is whether there is a relationship between the operating model (in-house, Statewide center, contractor) and the ADP cost. Another interesting question is whether allocation methods for ADP costs vary and, if so, whether they have any impact on the FSP share. As discussed in Chapter 5, experts suggest that current controls minimize this impact, but there is some uncertainty. In addition, the data used for allocation of ADP costs include usage measures that might be helpful for comparing States in terms of how computing-intensive they are. Further investigation of this concept on a small scale through interviews with Federal and State experts would clearly be needed before seeking to apply it on a larger scale.

Chapter 8

Explanatory Variables

The feasibility of explaining interstate variation in FSP State administrative expenses (SAE) depends on the availability and quality of data on explanatory variables, as well as on the SAE data. In this chapter, we review the explanatory variables suggested in preceding chapters and discuss the sources for these variables. We consider the availability, accuracy, and comparability of the data. For data that are not regularly published, we address the costs and other challenges of obtaining the data. Since time series analysis of SAE is desirable, the availability of time series data for explanatory variables is an important consideration.

Overview of Explanatory Variables

The explanatory data elements for models of SAE for the FSP and their potential sources are listed in Exhibit 8.1. As is apparent from the exhibit, most of the data elements are available from existing published sources for many years. For these data, we briefly describe the source. Where data are not available from published time series, we provide more in-depth discussion of potential sources and their constraints. Analytic issues regarding the choice of variables for alternative modeling strategies have been discussed in Chapters 3 and 4.

The data elements are grouped according to the following general categories, each of which is discussed in the sections that follow.

- Case counts, task frequency, and performance data
- Pay rates and other production input prices
- General environment: economic, fiscal, political and social conditions
- FSP and welfare policies and procedures.

Data on the frequency of certification, recertification, and other tasks would be used as explanatory variables or as dependent variables, depending on the option. In Option 1 and Option 5-National Averages, these are potential explanatory variables for models of administrative costs. In other versions of Option 5, task frequency data would be used to explain the overall variation in SAE, but they would also be modeled as a function of State characteristics. We discuss these data here because of their potential use as explanatory variables.

As discussed in Chapter 2, a key concept in specifying explanatory variables is the distinction between "uncontrollables" and "controllables". The "uncontrollables" are the factors beyond the control of the State Food Stamp Agency and its local offices, such as the State poverty rate. The "controllables" are the policies, procedures, and other choices of the State and local agencies. Some analyses may focus only on the "uncontrollables", while others may take into account both types of factors.

Exhibit 8.1

Explanatory Data Elements for Models of State Administrative Expenses for the FSP

Data Elements	Data Sources
Case counts, activity, and performance data:	
State case counts by type	QC public use microdata FNS-388 data State summary reports State Client Information System
Frequency of activities (overall, by case type)	FNS-366B data State summary reports State Client Information System
Performance indicators (accuracy, timeliness, access)	FNS QC reports QC public use microdata State summary reports FNS Program Access Index tabulations
Input prices:	
Public welfare or income maintenance worker pay	Annual Survey of Governments Employment payroll data (FTEs and pay by job class) Occupational Employment Statistics (specific occupations, by State) National Compensation Survey (average hourly pay and benefits, national averages for State and local government workers)
Comparable private sector wages and benefits	Occupational Employment Statistics (specific occupations, by State) Quarterly Census of Employment and Wages (for county-level average weekly pay) National Compensation Survey (average hourly pay and benefits, by Census region and division)
Cost of living index	CPI (regional by population size, area indexes) ACCRA cost of living index (city level)
Price indexes for inputs other than labor	CPI components (regional by population size, area indexes) American Community Survey (State median housing costs as a proxy for office rent) HUD Fair Market Rents (State or county levels as a proxy for office rent) Studley Effective Rent Index and related commercial real estate reports (selected central cities and suburban areas)
Economic and Fiscal Conditions:	
Unemployment, employment, and labor force participation rates Poverty rate	Local Area Unemployment Statistics Current Population Survey reports
Per capita income	Bureau of Economic Affairs reports
Per capita revenues and expenses	Annual Survey of Government Finances/Census of State and Local Governments
Expenditure need, fiscal capacity, and expenditure effort	Analytic studies (Yilmaz et al., 2006)

Exhibit 8.1 (continued)

Explanatory Data Elements for Models of State Administrative Expenses for the FSP

Data Elements	Data Sources
Political Conditions:	
Political party of governor Political party of legislative majority	National Governor's Association, National Conference of State Legislatures
Unionization of work force	Current Population Survey
FSP and welfare policies and procedures:	
FSP rules	State Food Stamp Policy Database FNS State Food Stamp Program Options Reports
Welfare (TANF) rules and benefits	Welfare Rules Database Department of Health and Human Services reports
FSP procedures and operating characteristics	Food Stamp Program Access Study
	Food Stamp Program Modernization Study
	Other one-time surveys

Case Counts, Activity, and Performance Data

FSP caseload size and composition are among the most essential explanatory variables for the potential models of SAE. The total number of FSP cases is needed for computations of cost per case, and the size of the FSP caseload may affect the cost per case through economies of scale. The percentage of FSP cases by program (FSP-only, FSP/TANF, FSP/General Assistance, FSP/Medicaid) is important for assessing the impact of cost allocation, and the distribution of cases on this and other dimensions (e.g., sources of income) is hypothesized as an important factor affecting eligibility worker time per case (as noted in Chapter 6).

Case processing activity data are also of interest for modeling variation in SAE. For analysis of eligibility worker costs, these data include the frequencies of activities such as expedited applications, regular initial applications, interim changes, periodic reports, recertification, closings, and claims for recovery of overpayments. Recalling the discussion in Chapter 2, heterogeneity in the frequency of activities per case is hypothesized as a major source of variation in SAE, along with heterogeneity in State caseloads, input prices, and inputs per activity.

The analysis strategies include the use of data on the accuracy and timeliness of case processing, and also the Program Access Index, as performance measures. Under the suggested approach, State costs would be normalized for differences in case mix and input prices, and then the relationship of normalized costs to performance measures would be analyzed. Alternatively, one could hypothesize that the budget for FSP administration is affected by past performance, particularly when performance results in sanctions (for high error rates) or bonuses, and treat lagged performance indicators as explanatory variables (for example, error rates at a level subject to sanctions might be a predictor of greater spending in the future).

Case records are the basic source of all information on the number of FSP households, the composition of the caseload, the actions taken by workers to establish and update records, and the

accuracy and timeliness of decisions. Case data may be accessed in three basic forms: State client information systems, the Quality Control sample file, and summary reports.

State Client Information Systems

When a household first applies for assistance, a record is created in the State client information system (CIS). This record includes the information collected from the household and other information from verification sources. The information is updated when the client provides new information (e.g., periodic reporting, change reporting, or recertification) or when new information becomes available from other sources, such as matching with employer wage reports. The case record includes demographic information on household members, income sources and amounts, deductible expenses, assets, and other information used to determine eligibility and benefits. To the extent that workers perform certification tasks through the CIS, there is a record of these tasks in the case history, and there may be more detailed information in the "audit trail" of system usage maintained as part of procedures assuring security and integrity of information systems. Thus, there is a wealth of potential data for analysis of case composition and worker activities.

These records are regularly used for research under agreements with State Agencies, but there are burdens and challenges. Obtaining and using case record data requires access to documentation, the capability to process files in the output format of the State system, and the cooperation of State staff to provide data extracts. Accumulating histories of cases or patterns of activity over time may require merging data from multiple extracts, each representing a month's activity. CIS often have limited historical data in the "production" databases at any time, so it may be necessary to process archive data to obtain information for earlier periods. Thus, the most feasible use of case records is in cross-sectional analysis. Longitudinal analysis of case records over multiple years can represent a major undertaking and cost for both the State and the contractor. Some States have established data warehouses, however, which facilitate such analysis and can produce tabulations from data warehouses upon request (UC Data, 1999). An updated study of such data warehouses and their capabilities could be a useful foundation for future research.[72]

Quality Control Sample Public Use Microdata

The annual Quality Control (QC) sample comprises about 50,000 active food stamp cases selected for QC reviews. (About 40,000 cases with negative actions receive more limited QC reviews, but no case characteristics are collected, and the data are not edited for analytic use.)[73] Case records from the active case reviews are compiled by the States, submitted to FNS, edited, and made available in the QC public use microdata files. Extensive data on household and participant characteristics are included (see Wolkwitz and Ewell, 2007). Of particular note, the QC data indicate when the household was certified and when the next certification is due; thus, the data can be used to derive the proportion of cases subject to initial certification or recertification in each month. While QC data for some years have an indicator for cases with interim actions, according to FNS these data are unreliable and are no longer included in the file. Each case record in these files indicates whether the

[72] Ver Ploeg et al., 2001 provides general discussion on the uses of administrative data in studies of social welfare programs.

[73] The purpose of the negative action review is to determine if the negative action (denial or termination of benefits) was done properly, not to determine if the household was ineligible. The data collection is designed to fulfill the specified purpose.

QC review identified an underpayment or overpayment and the amount of the error.[74] Weights are provided for estimates of population characteristics. National and State statistics on caseload characteristics derived from the QC data are published annually (Wolkwitz, 2007). FNS produces annual estimates of State case and payment error rates for active cases and case error rates for negative action cases. Starting in FY2003, FNS has used QC data to compute States' rates of timely case processing, and FNS awards performance bonuses to the six States with the highest percentages of cases processed timely.

The QC microdata can be used to compute the distribution of FSP households by case type and State using multiple dimensions. As the number of dimensions increases, the cell size and the precision of the estimates decreases. Thus, there is in principle a limit to how specific the case type categories can be with acceptable precision for State-level estimates. In practice, our experience with these data suggests that the precision of these estimates should be adequate. Appropriate analysis strategies would define case types so that none was too small a percentage of the caseload. Based on a preliminary assessment, a minimum of 10 percent would be a reasonable threshold to assure acceptable precision for estimates of case mix percentages, but sampling error should be carefully considered in the context of the exact use of the estimates.[75] Case types representing less than 10 percent of the caseload would not have much influence on the overall cost per case. Another limitation is that QC procedures change from time to time, so there may be issues of non-comparability. Of particular note is the change in the threshold of countable errors from $5 to $25, starting in FY 2000. Thus, analysts must review documentation to assure that data elements are comparable for the years being analyzed.[76]

Summary Reports

States are required to report to FNS on the number of participating households and individuals on a monthly basis, with a breakdown between public assistance and non-public assistance households (in the FNS-388 report).[77] These data when initially reported are estimates, so analysts must be sure to use final data. Households enrolled in Medicaid that do not receive cash benefits are not counted as

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[74] The original case records also identify cases that were determined ineligible in the QC reviews, although these cases are excluded from the public-use data. Data on ineligible households is limited, because once a reviewer identifies a household as ineligible, no further data are collected. Weights are provided for estimates of population characteristics from eligible cases.

[75] With an average QC sample of 1000 per the State, a 10 percent population percentage would have a confidence interval of around +/- 3%, including the design effect (Wolkwitz and Ewell, 2007). Smaller groups would have larger confidence intervals relative to the population percentage.

[76] Another issue to be addressed is the existence of error in the household characteristics as determined by eligibility workers. For example, in identifying households with earnings, one could count only those with reported earnings, or one could also include those with unreported earnings identified in the QC review. QC records can be used to estimate the percentage with reported or unreported earnings, but these percentages would not be consistent with published statistics on FSP participant characteristics.

[77] "Public assistance" includes TANF (cash and non-cash), GA, and State supplements for elderly/blind/disabled. Households enrolled in Medicaid that do not receive cash benefits are not counted as "public assistance" households.

"public assistance" households. Thus, the full potential for cost-sharing among income maintenance programs cannot be determined from these data.[78]

States also report program activities on the FNS-366B report. Certification activity data include counts of approvals, denials, terminations, and reinstatements; other activity counts are collected regarding fair hearings, fraud investigations, disqualification hearings, and fraud prosecutions. The FNS-366B report indicates the number of applications not processed within the required time, but timeliness rates based on these data appear to be poorly correlated with timeliness rates computed in 2003 and later on the basis of QC reviews (according to discussions with FNS headquarters personnel and analysis presented in Logan, Kling and Rhodes, 2008). As discussed in Chapter 6, FNS-366B data are on a State fiscal year basis, so counts for Federal fiscal years will be based on averaging data for two years and therefore will not fully reflect year-to-year changes.

Individual States also produce other summary reports for program management and accountability, including State summaries and breakdowns by county or local office. The States interviewed for the study had a variety of such reports, frequently available on their websites. The most common type was a caseload report with counts of cases by program for each site, sometimes with counts of workers by site and total cases (across all programs) per worker as well. Two of the States had internal management reports that compared staffing to a weighted sum of cases across programs and computed a summary measure of worker caseloads versus a standard. Another type of report showed the number of applications, recertifications, and closings by site. Also, State CIS generate reports of system usage by program that may be used for cost allocation and for monitoring system usage.

While it appears to be impractical to collect a consistent set of such reports for a large number of States, they could be collected for a small number of States. This would be a way to obtain measures of the frequency of certification activities at a lower cost than processing case records or QC data. Reports that break down data by office location could be analyzed to explore such questions as whether differences in case mix by program have the same relationship to eligibility worker time across States and within States.

For analysis of the relationship of SAE to performance in the domain of program access, FNS reports on the Program Access Index (PAI) can be used. This measure is computed using administrative data on the number of FSP participants and Current Population Survey data on the number of low-income persons (FNS, 2006). The PAI has been used since FY2003 to determine which States receive bonuses for the highest level of program access and the most improvement in program access. The PAI methodology could be applied to earlier years. States often compute the ratio of food stamp participants to Census estimates of persons in poverty at the county level as a measure of access; this information could be useful in studying cost versus access where county-level costs are available (i.e., where the FSP is county-administered, or where there is complete reporting of eligibility worker time rather than an RMTS).

[78] Another potential issue with the FNS-388 data is the extent to which public assistance cases are defined consistently. State TANF programs differ not only in cash benefit eligibility but also in eligibility for and use of non-cash benefits, such as child care.

Input Price Data

There are several kinds of input price data that might be appropriate for use in analyzing variation in SAE:

- State data on actual pay rates for eligibility workers and other FSP workers (as discussed in Chapter 6)
- national surveys of public welfare worker pay
- national surveys of pay rates for comparable private-sector occupations
- general measures of price levels or the cost of living
- price indexes for other factors such as rent.

Variation in input prices across States is widely acknowledged and is expected to be a major uncontrollable component of variation in SAE, so these data sources are very important. As discussed in Chapters 4 and 6, data on eligibility worker pay and private-sector benchmarks would play a critical role in separating the variation due to differences in eligibility worker time per case, market pay rates for eligibility workers, and actual eligibility worker pay. While Options 2, 3, 4, and 5 assume the collection of actual pay rates for eligibility workers for one or more years, these options would require market pay rate data, and Option 1 would require an extant data source on pay rates for FSP workers or comparable private-sector workers. We discuss the national surveys and standard price indexes below.

National Surveys of Public Welfare Worker Pay

There are two national databases that can be used to provide longitudinal data on pay rates for workers in public welfare agencies in all States. First, the Census Bureau's Annual Survey of Governments Employment (ASGE) provides annual payroll data by State, including number of full-time equivalents and total pay, for "public welfare workers", a broad category that includes workers in income maintenance, social services, and other functions of public welfare agencies. These data are based on surveys from all 50 States and a sample of local governments. Data for 1992 through 1995 and 1997 through 2006 are currently available on-line,[79] and data for 1989-1991 were provided for the recent study of FSP certification costs and error rates (Logan, Kling, and Rhodes, 2008). One limitation of these data is that each State defines what is a "full-time equivalent" (FTE), based on standard weekly work hours, but this definition is not specified. Thus, while the cost per FTE for two States could be the same, the cost per hour might be slightly different.

Second, the Occupational Employment Statistics (OES) program of the Bureau of Labor Statistics provides average hourly wage rates by State for specific occupations, including "eligibility interviewers", i.e., "eligibility workers" as defined in this memorandum (BLS, 2008a). OES occupational wage averages by State for 1999-2006 are available on-line; 1997 and 1998 data also are available from the Bureau of Labor Statistics (BLS). The OES data are more specific, but the ASGE data reflect the actual mix of "public welfare workers" in different occupations. The choice between these sources would depend on the specifics of the analysis, and both sources could be used in implementing Option 1.

[79] The ASGE was not conducted in 1996 (Census Bureau, 2008a).

Comparable Pay for Private Sector Workers

As we have argued in Chapter 3, a market wage indicator is a better measure of pay than the actual FSP worker pay if the intention is to represent the uncontrollable variation from State to State. The difference between actual and market pay reflects State or local decisions. The OES data provide average wages by State for over 800 occupations. The "eligibility interviewer" occupation falls within the major occupational group of "office and administrative support occupations". The overall average for this group could be used as a market pay index, or more specific occupational information could be used.

The choice of the market "benchmark" could have an effect on the analysis, although the variety of data would make a sensitivity analysis possible (indeed desirable). While the benchmark occupation or occupation group should be reasonably comparable to eligibility workers in terms of qualifications and duties, the match does not have to be exact. The benchmark pay rate will be used to create an index of the State's market pay level relative to the national average. Thus, what is most important is that the differences among States in pay for the benchmark occupation provide good estimates of the differences in eligibility worker pay that one would expect if States hired similar workers under the same conditions as private employers.

To benchmark county-level pay for eligibility workers or other FSP workers for analyses of cost differences among counties, the county-level average weekly pay statistics from the Quarterly Census of Employment and Wages (QCEW) could be used. These data are obtained by State unemployment agencies from all employers covered by unemployment insurance, and county-level averages are available from BLS for 1990 and later (BLS, 2008d). These data are less comparable across locations and over time than the OES data because they are weekly averages; thus, they reflect variation in paid hours per week as well as in hourly pay rates. In addition, the QCEW weekly average pay includes bonuses, overtime, and other compensation in addition to regular pay. Therefore, although State averages are available from the QCEW, the OES data are preferable for the anticipated uses in this context. As discussed below, the OES data are also preferable to other sources of market pay rates.

Analysts may wish to benchmark benefits or total compensation for FSP workers to private sector averages, either overall or for specific industries or occupations. The National Compensation Survey (NCS) collects data on pay and benefits by occupation from a national sample of establishments (BLS, 2008c). Data have been collected from both public and private employers since 1991. Published reports from the Employer Cost for Employee Compensation (ECEC) program provide annual averages of pay and benefit cost per hour for private employers by occupation, separately by Census region and division, and by metropolitan versus nonmetropolitan location. However, the published reports provide only national averages for state and local government employees, by broad occupational categories that are much less specific than the ASGE or the OES. Thus, these data are more useful for establishing private sector benchmarks than for independently estimating average pay and benefits for public welfare workers. Furthermore, they do not provide State-level estimates for any industries or occupations. Analysis of the available data and related literature might be used to determine how important the lack of State-level data would be for explaining variation in total compensation.

General Price or Cost of Living Indexes

As an alternative to wage data, a general price or cost of living index could be used to estimate the effects of market input price differences on total SAE. This approach has some appeal for models of total SAE, which includes both labor and nonlabor costs. The key limitation of price and cost of living indexes in this application is that they measure variation in a basket of goods and services that a typical household would buy, whereas SAE comprises a very different mix. Given the expectation that most of SAE is for labor, wage measures may be preferable. On the other hand, a general price or cost of living index might be considered a reasonable variable to use in analyzing variation in overhead (which includes labor and non-labor costs) or in a pool of varied non-labor costs. The choice of variables depends on the analysis, and alternative approaches can be tested and compared in sensitivity analysis.

The primary measure of general price variation across the nation is the Consumer Price Index (CPI). This index is computed monthly for the four Census Regions cross-classified by size of city, and for 27 metropolitan areas. It is not computed for individual States, but regional or metropolitan area indexes could be used (BLS, 2008d).

Another general price index is the ACCRA Cost of Living Index, published by the Council for Community Economic Research (C2ER). This index has been produced annually since 1980 at the city level, using price data for representative goods and services and weights based on the Consumer Expenditure Survey (C2ER, 2008). Population data at the city level within State could be used to compute a State-level index.

Price Indexes for Inputs Other than Labor

While the options defined in Chapter 4 focus on analysis of variation in pay, the prices of other inputs might be useful for analyzing variation in FSP SAE. The other inputs include supplies, equipment, data processing and telecommunications services, and facilities.[80] One possible source of data on input prices is the Consumer Price Index, which has indexes for specific categories of goods and services, such as housing. Differences in consumer costs for housing could be used as a proxy for variation in commercial rents, under the assumption that the markets are related and driven by the same underlying economic forces. This assumption does not take into account the differences between commercial and residential housing markets, such as the different cycles of demand and supply, but it may provide a reasonable proxy for differences in facility costs among States. As with the overall CPI, component indexes are not available at the State level, but the available geographic detail would allow some control for regional differences.

We have searched for but not identified a public State-level index for commercial real estate. Proprietary research firms offer indices based on rent or property values for major market areas; these markets are not necessarily representative of statewide averages. Most notably, the Studley Effective Rent Index provides comparisons of effective commercial rents for 16 top central city markets and 16 top suburban markets; this data series extends back to 1995 (Studley, 2008). Studley also offers

[80] The cost of facilities includes utilities, maintenance, and rent or depreciation of buildings and fixtures. Given the varied ways in which these costs might be paid, comparisons across States would be best made on the basis of the total cost of facilities, for which a measure of gross rent would be a suitable proxy.

reports of total rent per square foot averages for 18 major markets and 50 secondary markets.[81] We have identified several indexes of commercial property values, but none with State-level values or even coverage of the largest city in each State. As an example, Real Capital Analytics, maintains a database of all commercial property sales over $2.5 million starting in 2001 (RCA, 2008); this database is used to compile an index of commercial real estate prices for four regions of the nation and selected metropolitan areas. While indexes of property values for States are feasible according to one source, this has not been done except on a test basis in Florida (Gatzlaff and Holmes, 2007). A key issue for property indexes based on transaction prices is that sales within markets may be infrequent and heterogeneous, making indexes volatile. A deeper issue is that an index of current property values does not reflect the cost of properties when acquired by a State five, ten, or more years in the past.

In the absence of indexes for commercial property costs, an index of housing costs might be used as a proxy for the relevant economic conditions. For facilities, there are two sources of housing cost comparisons that could be used to construct indexes of differences in costs across States and over time. The 2000 Census and the American Community Survey (ACS) provide State level estimates of median monthly housing costs for renters, including rent and utilities. ACS estimates are available for 2002 through 2006 (Census Bureau, 2008b). Another approach would be to use Fair Market Rents computed by the Department of Housing and Urban Development (HUD). HUD computes Fair Market Rents for 530 metropolitan areas and 2,045 nonmetropolitan county FMR areas, based on area Census gross rent data updated using regional data from the American Housing Survey or HUD survey data (HUD, 2008).[82] While the Fair Market Rents data allow comparisons within a State, the validity of these data as a basis for comparing office costs is questionable. Given the uncertainties about separating rent or depreciation from other nonlabor costs (as discussed in Chapter 7) and the limitations of the available indexes, it appears that the most practical way to adjust nonlabor costs for uncontrollable price differences is to use a general cost of living index, i.e., the CPI or the ACCRA cost of living index.

General Environment

Analysis of variations in FSP SAE may seek to take into account the general environment in which States operate. These types of variables include economic, fiscal, political, and social conditions. These variables may affect SAE, performance, or both; they are particularly important for analysis of variation in activity rates and for comparisons of normalized costs to performance measures. The specific variables of interest would depend on the dependent variable (total SAE per case, eligibility worker time per case, eligibility worker time per task, etc.) and the hypotheses for the model. Below we summarize standard data sources in this general category.

[81] Effective rent is the preferable measure; it takes into account total rent and the terms of the lease, particularly concessions (e.g., if the first three months are free).

[82] The American Housing Survey produced biannual reports on a national basis and estimates for selected metropolitan areas every 6 years (Census, 2008c). Thus, this survey would not be useful for studies of variation in SAE.

Economic Conditions

The measures of State economic conditions for modeling SAE include: rates of employment, unemployment, and labor force participation; poverty rates; and per capita income. Trends in these variables may also be hypothesized to affect the amount of work required to administer the FSP. For example, Hamilton et al. (1989) found that the eligibility worker time per case rose with the unemployment rate and the rate of change in the unemployment rate, because volatility in employment produces volatility in the eligibility and benefits of FSP households. Economic conditions that affect the FSP caseload might be used in a model in place of the actual FSP caseload, in order to separate the effects of caseload characteristics from those of policies that affect SAE and FSP participation. The Current Population Survey provides monthly State data on employment statistics and annual data on income and poverty. An alternative source for employment statistics is the Local Area Unemployment Statistics (LAUS) program (BLS, 2008e), which is a joint program of the BLS and the State workforce agencies. Annual State income and poverty data are also available from the American Community Survey. The Bureau of Economic Affairs produces annual State statistics on per capita income and State GDP (BEA, 2008).

State Fiscal Conditions

Possible measures of State fiscal conditions include per capita revenues, per capita expenditures, fiscal capacity, and revenue effort. As discussed in Chapter 2, we hypothesize that a State's FSP budget is affected by its overall fiscal capacity and the competing demands for funding. Budget constraints may affect the frequency of tasks, the eligibility worker time per task, and the quality of task performance. With the exception of fiscal capacity, fiscal conditions are controllables from the perspective of State government as a whole, but they are arguably uncontrollables from the perspective of FSP managers. Annual data on State revenues and expenditures are available from the Annual Survey of Government Finances, conducted by the Census Bureau (Census, 2008d). The same data are collected every five years in the Census of State and Local Governments.

Fiscal capacity and revenue effort are analytic constructs derived from fiscal data and State characteristics. Fiscal capacity is the ratio of potential revenue to "need" for spending; these two quantities are estimated using models of the relationships of State characteristics to revenues and expenditures. Potential revenue, need for spending, and fiscal capacity are intended to be objective measures that are independent of the actual revenue and spending choices of the State. Revenue effort is the ratio of actual revenue to potential revenue; this reflects State choices. State indexes for these variables have been estimated for 2002 and earlier years (Yilmaz et al., 2006).[83] While the methodology could be replicated for other years, this would appear to be a major undertaking. Therefore, these variables could not be used in a time-series model with State fixed effects, but they could be used to analyze the State fixed effects in an additional step. They also could be used in cross-sectional analysis, such as the analysis of task frequency and the State-specific intensity measure for any version of Option 5.

[83] Yilmaz et al. (2006) reference prior reports using similar methods for 1991, 1997, and 1999.

Political Conditions

In the conceptual model in Chapter 2, the political preferences of a State's electorate directly affect its FSP budget and its policies, and indirectly affect FSP management. Conventional indicators of State political conditions in the literature on FSP participation (e.g., Kabbani and Wilde, 2003) include the political party of the governor and the party controlling one or both houses of the legislature. These data are available from the National Governor's Association and the National Conference of State Legislature. The party of the Presidential candidate winning the State in the most recent election is another indicator, but it is not annual. Lastly, the AFDC/TANF benefit level for a standard family unit is often used as an indicator of the State's propensity to spend on assistance to low-income households; this information is available from reports published by the Administration for Children and Families, Department of Health and Human Services (e.g., HHS, 2006) and also from the Welfare Rules Database (discussed below).

The degree of unionization of a State's work force may be a factor affecting pay rates for eligibility workers and other personnel; this variable might also be a good indicator for more general political preferences affecting the FSP budget, policies, and management. The BLS reports annually on union membership and representation of workers by State and the national median pay for union versus non-union workers (BLS, 2008e). The reported State-level data do not indicate the percentage of unionized workers in public versus private employment. Pay differentials also are not reported at the State level. Union membership data from the CPS might be tabulated across multiple years to estimate average unionization rates for public versus private employees by State. It may also be possible to use CPS microdata for this analysis.

Social Conditions

In the conceptual model, characteristics of the State low-income population affect the size of the FSP caseload, the case mix (percentage of households by type), and the share of common costs for multiple programs allocated to the FSP. (The size of the low-income population and the poverty rate are included in the variables for economic conditions listed above.) The population interacting with the FSP includes households that inquire about FSP but do not apply, and those that apply and are denied food stamp benefits, as well as participants. Possibly relevant dimensions include age, immigration status, mobility, and population density. Using general low-income population characteristics rather than FSP participant characteristics would control for the possible effects of specific policies on differential participation by demographic groups (e.g., simplified applications or outreach for senior citizens).[84] A wide variety of social indicators at the State level are available from the Census, CPS, and American Community Survey, and for other Federal statistical programs.

[84] One might attempt to model the effects of fiscal conditions in a reduced form approach by including factors affecting the demand for social welfare spending in general, such as dropout rates, crime rates, and teen pregnancy rates. In the literature on fiscal capacity and expenditure effort, the models of these fiscal conditions are complex. Therefore, we believe it is preferable to keep these models separate and use their results, rather than use the reduced form approach.

Characteristics of State FSP Operations

There are several available sources on specific aspects of FSP operations. As discussed below, some national sources are longitudinal, while others are intermittent or one-time products.

FSP Policy Variables Databases

For potential studies of policy impacts on SAE, the State Food Stamp Policy Database is an important resource. This longitudinal database of State Food Stamp policies was compiled for a recent study of FSP participation (for description and documentation, see Finegold et al., 2008). Covering 1996 through 2004, the database includes measures of State FSP policy options regarding certification periods, reporting requirements, categorical eligibility, transitional benefits, immigrant eligibility, and vehicle exemptions. Selected data are currently being updated to add values for 2005. Data for more recent years on many variables in this database are available from FNS' annual State policy options reports (such as FNS, 2006b).

For older time periods, data on State policies might be obtained from FNS' database of waivers to FSP regulations (FNS, 2008c). Using this database would be challenging and potentially time-consuming, however, for two reasons. First, the database captures the specific details of waivers, which vary among States even when the basic purpose of the waiver is the same. For quantitative analysis, the similar waivers would have to be grouped. Second, waivers granted by FNS may not have been fully implemented by the States.

For some policies, additional data may be needed to analyze their cost impacts. For example, the State Food Stamp Policy Database identifies States with expanded categorical eligibility for the FSP, including households receiving TANF services but no cash assistance. Potentially relevant details might differ among States: what types of services would qualify a household, and what proportion of FSP households is approved on this basis. The latter question can be answered by analyzing the QC microdata, but new data may be required if there is a desire to analyze the impacts of policy details such as the proportion of cases assigned to simplified reporting.

We have noted previously the limited degrees of freedom available, even when analyzing nine or more years of 50-State time series data. Thus, the number of policies that can be included in feasible models is finite, even when costs are normalized and degrees of freedom are not needed for such factors as case mix and economic conditions. For more detailed policy variations, an alternative approach is to collect and analyze detailed data on the costs of specific tasks affected by the policies may be the most effective approach; this was the method used for estimating the impact of changing from coupon to EBT issuance on eligibility worker and clerk costs (e.g., Logan et al., 1994).

Welfare Rules Database

TANF rules may be another area of interest for analysis of SAE. For example, TANF policies to divert applicants may alter the flow of applicants so that TANF income eligibility determination occurs after a household has already been approved for food stamps. As a result, the FSP may bear more of the costs of joint eligibility determination activities than when the full TANF application is processed at the same time as the food stamp application. TANF policies could also contribute to more or less frequent changes in food stamp cases, particularly when food stamp sanctions are linked to TANF sanctions. The influence of TANF policies has diminished as the proportion of FSP

households receiving TANF has dropped: in FY2006, only 13 percent of FSP households received TANF (Wolkwitz, 2007).

The Welfare Rules Database, created and maintained by the Urban Institute, provides longitudinal data on State TANF rules from 1996 through 2003 (Rowe and Versteeg, 2005). This database includes four main categories of rules: initial eligibility, benefits, work and other requirements to maintain benefits, and ongoing eligibility (including family caps and time limits). The data are accessible through a series of reports and an online database.

Surveys of State FSP Operations

Data on State FSP operations may be obtained from existing or new surveys of State and local agencies. Such surveys would have to be done regularly to compile a longitudinal database, and this would represent a considerable expense. Thus, primary data collection is more feasible and generally has been done on a one-time basis.

Several surveys have collected data on State FSP operations; two such surveys are of particular interest for studies of certification costs. First, the Food Stamp Program Access Study collected data on State and local policies and procedures expected to affect access to the FSP (Bartlett et al., 2004). Public-use data from the State and local agency surveys are available. Second, the FSP Modernization Study collected extensive data in 2007 on State efforts to improve the efficiency, accuracy, and accessibility of certification and other operations. Topic areas included: organization, administration, technology, partnering with community organizations, alternative interfaces with customers (call centers, electronic applications), biometric identification technology, and outreach. The data on organization and programs administered closely align with characteristics hypothesized to affect long-term cost differences among States. Data on the role of community partners from the Modernization Study could be important, since these partners may assist in the application process at little or no cost to the FSP. For each of these areas, questions included the timing and scope of the changes, the State's objectives, and outcomes. Such a survey provides a wealth of information that is both a boon and a challenge. From a qualitative perspective, this information can be used to understand similarities and differences in modernization efforts across States. For quantitative analysis, the large number of variables poses a challenge for specifying models that can be estimated (due to the potential for insufficient degrees of freedom or collinearity). Thus, for such data to be useful in explaining cost differences among States, the data would have to be analyzed and "boiled down" to the major differences among States.

Interviews with State officials for this study point to an important caution about collecting information on how the FSP operates at the local level. State officials may be familiar with the possible variations of structure, such as whether some offices have separate intake and ongoing case units, and variations in client flow (such as use of support staff to collect application information). However, State officials may not know how often the variations in structure or client flow actually occur, or whether there is a "typical" configuration for a local office. When these decisions are delegated to local managers, States may not have the resources or the need to track them. As a result, surveys that seek to establish the standard or typical practices will be more reliable if they collect data at the local office level, except in the States with the most top-down approach to managing local operations.

Summary

The preceding discussion makes clear that there is a wealth of data that can be used to analyze variation in SAE. In particular, there are strong national databases with State-level time series data on the following types of explanatory variables:

- case counts and characteristics
- frequency of certification and recertification, by case type
- pay for public welfare workers and comparable private sector occupations
- economic conditions
- State revenues and expenditures
- political and social conditions
- FSP and welfare rules.

There are, however, some important limitations and challenges.

- Other than the public assistance/non-public assistance breakdown in FNS data, analysts must obtain State reports, or else they must process QC microdata or State client data to determine the proportion of food stamp cases of different types.
- State client data must be processed to determine the frequency of activities that are not reported in the FNS-366B or to determine the frequency of activities by case type (other than certification and recertification, which can be identified in QC microdata).
- While wage rates are available at the State level, benchmarks for benefits are available only at the regional level, and union/non-union wage differentials are available only nationally and for specific metropolitan areas.
- There are no State-level benchmarks or indices for the costs of resources other than labor used in FSP State and local operations. For rent/depreciation of facilities, variations in housing costs by State or metropolitan area office rents could be used, but these sources have important limitations. In general, it appears that the most practical strategy for normalizing nonlabor costs is to use the regional CPI or the ACCRA index as a proxy.
- Expenditure need, fiscal capacity, and expenditure effort are interesting concepts but require considerable effort to replicate the existing methodology.
- Longitudinal databases of FSP and welfare rules are available, but they are extensive and detailed, and require analysis to construct summary measures for analysis of SAE.
- FSP procedures and operating characteristics are not documented on an ongoing basis, although some one-time surveys are available. As operating procedures become more diverse through use of technology and different business processes, this information will become more important.

PART III: CONCLUSIONS AND RECOMMENDATIONS

This part of the report presents the conclusions regarding the study questions, compares the feasibility of the study options, and describes a suggested program of research on SAE.

Chapter 9

Conclusions and Recommendations

This report has assessed the potential approaches, data requirements and sources, and overall feasibility of explaining variation in State administrative expenses (SAE) for the FSP. Two sets of questions were posed in Chapter 1:

- Is it possible to ***measure*** food stamp administrative expenses consistently enough across States to credibly assess the degree of variation? If it is possible, what are the alternative ways to measure such expenses? Are new data required? If so, what level of effort would be required and what challenges would need to be addressed to obtain such data?
- How well can variation in State food stamp administrative costs be ***explained*** with non-experimental methods? What are the alternative approaches, and what are the advantages and disadvantages of each? Which approach is recommended and why?

In addition, we have considered the potential sources for variables to explain the variation in SAE. In this chapter, we summarize our answers to these questions and outline a program of potential studies of variation in SAE. Our recommendations take into account the interactions of data and analysis strategies, and the implications for the most feasible analytic approaches.

As discussed in Chapter 1, we have assumed that the primary interest is in the variation in certification costs, and we have argued that variation in the costs of other client service functions should be studied separately. The discussion of data sources has focused, accordingly, on measurement of certification costs, with attention to automated data processing (ADP) costs as a secondary interest. We also have addressed, in less detail, the potential data sources and issues for studying the costs of other functions, including nutrition education, issuance, and employment and training.

Feasibility of Obtaining Consistent Measures of SAE

In general, there appears to be sufficient consistency in the reporting of SAE for the FSP to permit valid comparisons across States and over time. This conclusion applies to all components of SAE. This consistency is due to the extensive controls at the State and Federal levels to assure that claims for reimbursement are accurate and that the allocation of costs across programs is equitable.

There are some important qualifications to this conclusion with respect to certification and ADP costs.

- The "certification" reporting category does not provide a consistent measure across States, but this problem can be solved by creating an analytic measure that also includes the "unspecified other", "reinvestment", and "outreach" categories. A broader measure that includes related activities may be desirable for analyses relating certification costs to effectiveness.
- There is substantial uncertainty about how to compare ADP costs across States and over time. These costs should be studied separately, taking into account specific information about ADP systems, before attempting to relate ADP costs to certification costs.
- There is some risk that local costs are less accurately reported when States use personnel activity reports instead of RMTS for multi-program staff.
- Comparisons of State-level management and oversight costs might be affected by differences in cost allocation methods, but these costs are a relatively small portion of SAE.
- Changes in cost allocation rules must be taken into account in comparing certification costs prior to 1999 with later years. It is possible to make adjustments for these changes, but these adjustments would complicate the modeling of changes in these costs over time.
- Because of time lags in the reporting of SAE, comparisons will be most valid when based on final annual expenses. For States where counties administer the FSP, reporting lags may affect comparisons of expenses with other States and with trends in explanatory variables.
- A study of SAE would be strengthened by collecting some simple items of information from States about the methods used to allocate time for multi-program eligibility workers and other shared costs at the local level, and in central units performing certification functions.

Detailed Cost Data Desirable to Explain Variation

We may seek to explain variation in SAE in two different ways. First, we may seek to determine how much of the overall variation can be explained by factors that States cannot control (such as prevailing wages, and demographic and economic conditions) and by factors that States can control (such as policies, management decisions, and investments in computer technology). The more interstate variation in FSP SAE is due to controllables, the larger is the scope for cost savings. Second, we may seek to determine the difference in SAE attributable to specific policies, such as simplified reporting, or specific management practices, such as use of call centers to process case changes.

Conceptual Framework for Defining Data Needs

In this report, we have presented a conceptual framework for analyzing SAE at the input level (e.g., labor costs), the case level (i.e., cost per case by type of case), and the task level. We have defined the ideal data on SAE as comprising the quantities of inputs used and the FSP share of that usage for each task for each type of case, the frequencies of tasks by type of case, the distribution of cases by type, and the market prices of inputs. The ideal data cannot be obtained in practice, but we have envisioned simplified approaches that will enable us to understand the sources of variation in SAE.

This framework makes clear that it is highly desirable to disaggregate SAE as much as practical along the dimensions of the ideal task level framework. While a conventional regression analysis of aggregate SAE at the State level could certainly be undertaken, and indeed is one of the

recommended approaches, it would have two important limitations. First, with a large number of possible explanatory factors, we are likely to run out of degrees of freedom to estimate effects with confidence. Second, a linear specification with variables having additive effects appears to be a poor approximation of the true model.

To disaggregate SAE along the lines of the conceptual framework, we would need some or all of the following kinds of cost data, in addition to aggregate SAE per case by State and year:

- breakdown of SAE among inputs, particularly between eligibility workers and other inputs
- prices and quantities of inputs, particularly eligibility worker time and pay
- distribution of eligibility worker time by type of case
- frequency of eligibility worker tasks and time per task

We focus on eligibility worker labor as the input of greatest interest because these workers play the largest role in the usual certification process.

The specific data requirements and the feasibility of meeting those requirements depend on the approach to disaggregating SAE. We have identified five feasible options for explaining the variation in SAE using extant or new cost data at varying levels of aggregation. The five options and their data requirements are summarized in Exhibit 9.1 (repeated from Exhibit 4.2). One option (Option 1) would model aggregate State-level SAE per case (specifically, certification costs) as reported by States to FNS. These cost data are certainly available.

The other four options would implement different parts of the ideal disaggregation of SAE. Option 2 would break down total certification costs into three key variables: eligibility worker hours, eligibility worker pay per hour, and the "generalized overhead rate", defined as the ratio of all other costs to eligibility worker costs. This option would require data from State financial records. Options 3 and 4 would further break down the eligibility worker hours by case type; Option 3 would do this for all States, while Option 4 would do this in a sample of States and use the data to construct a difficulty index of the relative effort for each type of case. These options would thus require data on the distribution of eligibility worker time by type of case. Option 5 would break down the eligibility worker hours at the task level as a function of time per task and task frequency by case type. Option 5 could be implemented with the Option 2 cost data alone or with State-level data on the average eligibility worker time per task; all versions of Option 5 would use State-level data on the frequency of tasks by case type. Under all of these options, additional State-level data would be needed to break down the overhead rate into components for separate analysis (labor vs. non-labor, local vs. State, etc.).

In the discussion that follows, we focus on the feasibility of collecting valid, comparable cost data from existing or new sources to meet the requirements of the options. The conclusions on the availability of the explanatory variables are presented in the next section. Following that discussion, we summarize the strengths and weaknesses of these options for analysis of variation in SAE.

Exhibit 9.1

Research Options, Data Requirements, and Potential Data Sources

Option	Data Requirements	Data Collection Options
1. Modeling available State-level data	"Core data": annual SAE, caseload composition, input prices, economic conditions, political conditions, policy choices	Extant FNS or public databases
(Options 2 through 5 require the core data for Option 1. Additional data requirements and collection options are identified below.)		
2. Modeling eligibility worker time per case, generalized overhead, and pay rate	State-level total eligibility worker cost and number of full-time equivalents (FTEs) Breakdown of non-eligibility worker costs (if analysis of the composition of overhead is desired)	Survey of States (or) Data abstraction from State records
3. Modeling eligibility worker time by case type, generalized overhead, and pay rate	Option 2 data plus: Eligibility worker time percentage by case type	Additional data from all States: RMTS[a] or personnel activity reports[b] with detailed case type or case number (or) Time study (or) Worker survey
4. Modeling difficulty and intensity factors by case type, generalized overhead, and pay rate	Option 2 data plus: Standard difficulty factor by case type (ratio of time per case to benchmark or overall average)	Additional data from subset of States: RMTS or personnel activity reports with detailed case type or case number (or) Time study (or) Worker survey
5. Modeling time per task, task frequency by case type, generalized overhead, and pay rate	Option 2 data plus: Time per task by task, frequency of task by case type National Averages approach estimates time per task by task by modeling time per case as a function of task frequency; no measurement of time per task required	Additional data from all or subset of States: For time per task: RMTS or personnel activity reports with task code or case number (or) Time study (or) Worker survey For frequency of key tasks by case type: Extant FNS statistics (FNS-366B)[c], (or) Quality Control sample microdata, (or) Case records

[a] RMTS=Random Moment Time Study.

[b] As discussed in Appendix B, some States require eligibility workers to complete personnel activity reports as the basis for allocating their time between the FSP and other programs. A personnel activity report is a log of every case that the worker serves, compiled continuously.

[c] See discussion of Option 5 for explanation of the FNS-366B report.

Feasibility of Obtaining Data for Options 2, 3, 4 and 5

Of the four options for analyzing eligibility worker time, pay, and "overhead", Option 2 is clearly the most feasible, because the data requirements are much more modest. The version of Option 5 based on national average time per task is also more feasible than the other options. There are, however, several key caveats about Option 2; these also caveats apply to Options 3, 4, and 5, which require the data for Option 2 as a starting point.

- There is uncertainty about whether a consistent definition of "eligibility worker" can be applied to collect comparable data on eligibility worker costs and "overhead" from existing sources in all States. Information from States via a survey would be helpful to resolve this uncertainty. Using total local office labor instead is potentially an acceptable fall-back, but this would complicate the comparisons of pay and benefits.
- Data on eligibility worker time, pay rates, and benefits from State records could be collected from most States with relatively modest effort and burden on States, but the effort and burden to assure that these estimates are entirely comparable could be substantially greater.
- Option 2 would be more complicated, costly and burdensome in county-administered States and where some eligibility worker functions are performed in call centers, but we do not anticipate that it would be infeasible to include such States in a study based on Option 2.
- Analysis of the labor component of overhead appears to be feasible, as is breaking down overhead by agency level (local, State program administration, statewide). Breaking out specific types (objects) of nonlabor costs is likely to be challenging. The feasibility of computing desired summaries from the detailed data in accounting systems depends on the capabilities of the accounting system, how FSP is computed, and the cooperation of State officials.
- Decentralized accounting data pose challenges and opportunities for collecting data on the composition of overhead where counties operate the FSP under State supervision.

A limited version of Option 3 appears feasible to implement on a national scale: collecting existing data on the percentage distribution of eligibility worker time by program combination (FS-only, FS and Medicaid, etc.). This information exists in States that conduct that administer programs jointly and collect this information for cost allocation purposes through random-moment time studies (RMTS) or activity reports. These existing data are feasible to collect and would be informative, but the combination of programs is only one of the case type dimensions of interest. We would also like information on relative effort required for other case characteristics that are likely to shift SAE per case. Those case characteristics are likely to include whether the case has earnings, the number of individuals in the case, and whether the case includes elderly persons. New data collection would be possible, but would be very expensive, and would only provide a cross-section as of the time in which the new data were collected (rather than a time series of data for each State spanning several years).

Option 4 simplifies the data requirements of Option 3 by assuming that the relative difficulty of each case type does not vary systematically by State, so data on eligibility worker time by case type from a small number of States can be extrapolated to all States and all time periods using available aggregate data on case mix (e.g., QC data or FNS Form 366B data). While this assumption may not be strictly correct, it provides a basis for feasible and potentially insightful analysis. To implement Option 4,

there are three potential designs, listed below in order of increasing richness of data, cost, and burden, with their chief challenges:

- **Collect existing data from States that identify case type in their RMTS or activity reports.** This approach would only be viable if a sufficiently representative group of States had comparable data.
- **Merge case records with existing RMTS or activity report data to estimate the proportion of time by case type.** Issues for this option include: uncertainty about how many States have case identifiers in their time use data, and potential logistical and privacy issues if the researchers have to process original hard-copy time reporting forms in order to obtain the time data with case identifiers. The effort to acquire and process case records would make this approach infeasible for Option 3 but it appears feasible in a small number of States for Option 4.
- **Collect new time-use data from eligibility workers in a sample of offices within the selected States and match these data to case records**. Such a study could provide data on time by task as well as by case type; thus it would be a combination of Options 4 and 5. This approach was used in the FSP certification cost study. A full replication of the prior study would be very expensive and burdensome, but would yield very rich data. A smaller-scale version designed only to estimate overall time per task would be more feasible. A key challenge for such a study is assuring that the sample of offices provides sufficiently representative data for national estimates (and State estimates if desired). New time-use data would be limited to the period for which they were collected, whereas extant data would be available for three to five years.

There are three versions of Option 5 that appear to be feasible. All three versions could use existing national databases providing the aggregate frequency of major tasks by case type; one version could use more detailed case records from a subset of States. Each version would take a different approach to estimating the time per task. As with Option 4, the choice among these versions involves trade-offs between richness and quality of data, cost, and burden.

- The **National Averages version** would use a regression model to estimate the national average time per task across States. This option could be implemented on a national scale using FNS-366B data or QC microdata, but the tasks would be limited by these sources, which do not identify case management activities occurring between certifications. (One could define each active case that is not certified or recertified during a month as an instance of generic case management.) In addition, this approach may oversimplify the relationship between task frequency, case type, and average time per case. This approach could be supplemented by interviews with State experts to estimate time per task or validate the results of the regression analysis.
- The **Subset of States version** would collect time per task data in a small number of States through an existing RMTS matched with case records, a new time study, a worker survey, or interviews with State experts in a subset of States. These data would be combined with task frequency data from State case records or national sources. The details of the approach would depend on the resources available and the expectations for the precision and accuracy of the estimates. Analysis based on State case records would have to be mapped into task categories in national sources to generalize to all States.

- The **All States version** would collect time per task in all States. While any of the methods for the Subset of States version might in principle be used in all States, only the expert interview method appears practical, considering the costs and burden. Given the uncertainty about the validity of such data, it would be preferable to combine this version with one of the other versions of Option 5.

Time Series of Cost Data Available

As discussed in Chapter 3, the ability to draw causal conclusions about the sources of variation in SAE will be stronger if models control for both the known factors and the unknown factors that are correlated with SAE. More specifically, using a time series in a difference-in-differences (DD) model (with fixed State effects and year effects) will provide much more confidence in the conclusions than a cross-sectional analysis. While there is no specific rule as to how many years of data are needed, the power of a DD model increases with the number of years of data. Experience suggests that the effect of a major change can be detected with a time series of about 5 years or more, while more subtle or gradual changes require longer time series. For practical purposes, then, DD modeling would be feasible only if most of the data come from existing sources, since it does not seem feasible to conduct new data collection over a span of more than 5 years.

Exhibit 9.2 summarizes the feasible time span of analyses under Options 1 through 5. For Option 1, usable data are currently available and valid for eight years (FY1999-FY2006). Available data for earlier years could be used with adjustment for changes in cost allocation, but other changes in the FSP limit the usefulness of older SAE data. On the other hand, Options 2, 3, 4 and 5 depend on existing accounting records that are at best available for three to five years. (This constraint does not apply to the National Averages approach to Option 5.) In addition, as the amount of data requested increases, it becomes more burdensome and less feasible to obtain data for multiple years. In particular, the approaches to Option 4 and the State-level approaches to Option 5 that require new data are, for practical purposes, feasible only for a single year at most. "Drilling down" to analyze the generalized overhead costs (everything but eligibility worker costs) will be more feasible for a single year than for multiple years, particularly if the analysis seeks to decompose overhead labor cost variation between level of effort and pay rates. Options 2, 3, 4, and 5 by themselves would not support time-series analysis to control for State and time period effects. From a very cautious perspective, these options might be seen as best suited to a cross-sectional study because of their assumptions. However, cross-sectional data from these options could usefully be combined with more aggregate time-series data that would allow analysis to control for State differences and time period effects.

In Exhibit 9.2, other timing issues are identified as well. One issue is that methods relying on existing RMTS (with or without added data elements) may need multiple quarters of data to provide a sufficient sample. While RMTS quarterly samples are sufficient for precise estimates of the overall percentage of time spent on each program, larger samples will be needed to provide the same precision for breakdowns of that time. Large samples can be obtained by pooling data from several quarters, but this means that the data collection is extended and the burden on workers is greater. Methods that require new data collected on a prospective basis also pose a complication for the timing of analysis: the total eligibility worker cost and other cost must be collected on an annual basis. Thus, the researcher has a choice: waiting until the annual data are available to complete the analysis, or combining the detailed time use data with a prior year's costs. As noted in the issues for

Exhibit 9.2

Feasible Time Periods for Cost Data Required by Research Options

Option	Maximum Feasible Time Period for Cost Data	Additional Constraints on Analysis Time Period
1. Modeling available State-level data	1989 (or earlier) to present	Most comparable from 1999 to present Cost allocation may have changed after 1996 Adjustment to certification cost may affect comparisons between costs for 1999 and later to earlier years Costs are not final for two years after the end of the fiscal year.
2. Modeling eligibility worker time per case, generalized overhead, and pay rate	State and county records accessible for three to five years after end of fiscal year.	Burden of obtaining multiple years of data could affect cooperation. Burden and cost of obtaining county records where needed could limit study to one year.
3. Modeling eligibility worker time by case type, generalized overhead, and pay rate	State and county records accessible for three to five years after end of fiscal year.	Burden of obtaining multiple years of data could affect cooperation. Burden and cost of obtaining county records where needed could limit study to one year.
• Existing time for PA and NPA cases	(Same retention period as other State and county records)	
4. Modeling difficulty and intensity factors by case type, generalized overhead, and pay rate	State and county records accessible for three to five years after end of fiscal year.	Burden of obtaining multiple years of data could affect cooperation. Burden and cost of obtaining county records where needed could limit study to one year.
• Merge eligibility worker time use data with case records	Case records supporting benefits retained for three to five years	May need multiple quarters to provide sufficiently precise estimates. Burden to obtain case records and effort to process records increases with number of quarters of time use data
• Collect data on time by case type through existing time reporting	Prospective data collection, period to be negotiated with States	May need multiple quarters to provide sufficiently precise estimates. Burden and cost increases with number of quarters. Time lag between time data collection and availability of costs for period
• Collect data on time by task and case type through one-time study	Prospective data collection Generally done for one month in each location	Burden and cost increases with length of study. Time lag between time data collection and availability of costs for period
5. Modeling time per task, task frequency by case type, generalized overhead, and pay rate	State and county records accessible for three to five years after end of fiscal year. Case records supporting benefits retained for three to five years	Burden of obtaining multiple years of data could affect cooperation. Burden and cost of obtaining county records where needed could limit study to one year.
• Estimate national average time per task with regression model of time per case and task frequencies	(period of 366B availability to be confirmed) QC data available for 1989 through 2006	FNS-366B data on State, not Federal Fiscal year
• Collect data on time per task in a subset of States	For time per task, prospective data collection, period to be negotiated with States	Time lag between time data collection and availability of costs for period. Burden and cost increases with number of periods in which time data are collected.

Option 1, State reports of SAE are not final for two years after the end of the fiscal year. A lag of over a year exists in the availability of QC public-use microdata files. Last, the FNS-366B data are reported on a State, not Federal fiscal year basis.

Explanatory Variables

The review of sources identified a wealth of data that can be used to analyze variation in SAE. In particular, there are strong national databases with State-level time series data on the following types of explanatory variables:

- case counts and characteristics
- frequency of certification and recertification, by case type
- pay for public welfare workers and comparable private sector occupations
- economic conditions
- State revenues and expenditures
- political and social conditions
- FSP and welfare rules.

There are, however, some important limitations and challenges.

- Other than the public assistance/non-public assistance breakdown in FNS data, analysts must obtain State reports, which also have limited breakdowns, or else they must process QC microdata or State client data to determine the proportion of food stamp cases of different types. With a large number of case types, the precision of State-level estimates from QC sample data could be a problem. However, appropriate analysis strategies would define case types so that none was too small a percentage of the caseload. Based on a preliminary assessment, a minimum of 10 percent would be a reasonable threshold to assure acceptable precision for estimates of case mix percentages, but sampling error should be carefully considered in the context of the exact use of the estimates.
- State client data must be processed to determine the frequency of activities that are not reported in the FNS-366B or to determine the frequency of activities by case type (other than certification and recertification, which can be identified in QC microdata).
- While wage rates are available at the State level, benchmarks for benefits are available only at the regional level, and union/non-union wage differentials are available only nationally and for specific metropolitan areas.
- There are no State-level benchmarks or indices for the costs of resources other than labor used in FSP State and local operations. For rent/depreciation of facilities, variations in housing costs by State or metropolitan area office rents could be used, but these sources have important limitations. In general, it appears that the most practical strategy for normalizing nonlabor costs is to use a general cost of living index (the regional CPI or the ACCRA index) as a proxy.
- Expenditure need, fiscal capacity, and expenditure effort are interesting concepts and could be used on a cross-sectional basis but would require considerable effort to replicate the existing methodology for longitudinal analysis.

- Longitudinal databases of FSP and welfare rules are available, but they are extensive and detailed, and require analysis to construct summary measures for analysis of SAE.
- FSP procedures and operating characteristics are not documented on an ongoing basis, although some one-time surveys are available. As operating procedures become more diverse through use of technology and different business processes, this information will become more important.

Feasibility of Explaining Variation in SAE

Based on the whole of the discussion in this report, it is clear that any of the specified options would provide important insights in variation in SAE, well beyond the descriptive analyses that have been published (Logan, Sabia, and Rhodes, 2006; Isaacs, 2008; GAO, 2006), and far more current than the only major attempt to explain variation in SAE (Hamilton et al., 1989). The options would, to varying degrees, permit analysis of how SAE varies with differences in case mix, wages and other input prices, task frequency, time per task, and FSP share of costs. The options that disaggregate SAE would allow analysis of the factors that drive each of these components of the overall variation in SAE.

It is also clear that there are important trade-offs among the options on five basic dimensions:

- the degree of uncertainty about the technical feasibility of the option
- the number of years that are technically and practically feasible to include in the analysis, and thus the feasibility of using difference-in-differences (DD) methods
- the limitations of the analysis due to the underlying assumptions
- the ability to estimate the effects of specific variables on SAE (controllables and uncontrollables)
- the relative cost and burden of the potential research, based on the scope of the data collection and the number and types of respondents.

In general, the options that are more practical (in terms of technical feasibility, cost, and burden on States) are the ones that use more aggregated data, and therefore have less potential to explain variation. The options that will disaggregate costs into more factors entail more cost and burden. Therefore, these options by themselves would be more likely to be limited to cross-sectional analysis, although they could be combined with the more aggregated time-series data for DD analysis. In addition, there are significant feasibility questions about some of these options.

Exhibit 9.3 compares the research options on these dimensions, summarizing the feasibility assessment for each option discussed in this report. For Option 3, the exhibit includes the only plausibly feasible version: collecting eligibility worker time by program combination from all States. Two versions of Option 4 are referenced but the feasibility assessment is, at this level, the same. For Option 5, the National Averages and Subset of States versions are shown separately, because the feasibility assessment is different with respect to technical feasibility and cost/burden. We exclude versions of Option 3, 4, and 5 that we have discussed in the report but view as infeasible due to lack of requisite data, high likelihood of errors in data, or high cost or burden. Readers may differ in their views of the feasible level of cost and burden for studies of SAE. Preliminary research suggested in the next section could change the assessment of the options that are not identified among the feasible set.

Exhibit 9.3

Comparison of Feasibility, Advantages, and Limitations of Research Options

Criteria	Option 1: Modeling available State-level SAE data (SAE) as a function of State characteristics	Option 2: Modeling eligibility worker (EW) time per case, overhead, and pay rate	Option 3: Modeling EW time by case type, overhead, and pay rate	Option 4: Modeling difficulty and intensity factors by case type, overhead, and pay rate	Option 5—National Averages: Modeling average time per task, task frequency by case type, overhead, and pay rate	Option 5—Subset of States: Modeling average time per task, task frequency by case type, overhead, and pay rate
Data collection	None. (Extant data include SAE, case characteristics, input prices, economic and political conditions, policy choices).	Collect State-level total EW cost and number of full-time equivalents via survey.	Collect Option 2 data plus EW time distribution by combination of programs.	Collect Option 2 data plus measurement of EW time by case type in selected States.	Collect Option 2 data and use extant FNS task frequency data.	Collect Option 2 data, measure task time in selected States, and use extant FNS task frequency data or case records.
Technical feasibility	All extant data from national sources, no issues.	Uses extant State data; Need consistent definition of EW or "local" staff.	Uses extant State data; Issues are: need consistent definition of EW or "local" staff; reliability of data for States using personnel activity reports; inclusion of FSP-only workers.	Possibly uses extant State data, may require new data. Issues are: need consistent definition of EW or "local" staff; matching case numbers for RMTS observations to case records; sample sizes (States, workers, cases).	Uses extant State data; Issues are: need consistent definition of EW or "local" staff; extent of error due to difference between State and federal FY counts (366B); power to estimate time per task via regression .	Likely requires new data; Issues are: need consistent definition of EW or "local" staff; tasks identifiable in case records; ability to map tasks in case records to national databases.
Number of years technically feasible	Unlimited	3-5	3-5	3-5 (only if EW time study repeated)	3-5	3-5 (only if EW time study repeated)
Limitations due to assumptions	Poor approximation of functional form of conceptual model; pre-1999 data may not be comparable.	Limited data on costs other than EWs or “local” staff.	Limited data on costs other than EWs or “local” staff. Collapses differences in task frequency and time per task.	Limited data on costs other than EWs or “local” staff. Collapses differences in task frequency and time per task. Constant difficulty across States, over time. Sensitive to State-specific effects.	Limited data on costs other than EWs or “local” staff. No difference in time per task by case type. Uses modeling, not measurement for time per task.	Limited data on costs other than EWs or “local” staff. No difference in time per task by case type. Sensitive to State-specific effects.

Exhibit 9.3

Comparison of Feasibility, Advantages, and Limitations of Research Options (continued)

Criteria	Option 1: Modeling available State-level SAE data (SAE) as a function of State characteristics	Option 2: Modeling eligibility worker (EW) time per case, overhead, and pay rate	Option 3: Modeling EW time by case type, overhead, and pay rate	Option 4: Modeling difficulty and intensity factors by case type, overhead, and pay rate	Option 5— National Averages: Modeling average time per task, task frequency by case type, overhead, and pay rate	Option 5— Subset of States: Modeling average time per task, task frequency by case type, overhead, and pay rate
Ability to estimate effects of uncontrollables	Most limited for any one year; strongest for longitudinal analysis.	Better than Option 1.	Better than Options 1 and 2 with respect to program mix.	Better than Options 1,2,3 with respect to case mix.	Better than Options 1,2 with respect to case mix; better than Option 4 with respect to factors driving task frequency.	Better than Options 1,2 with respect to case mix; better than Option 4 with respect to factors driving task frequency.
Ability to estimate effects of controllables	Most limited for any one year; strongest for longitudinal analysis.	Better than Option 1.	Better than Options 1 and 2 for controllables related to program mix.	Better than Options 1,2,3 for controllables related to case mix.	Better than Options 1,2 with respect to case mix; better than Options 3,4 with respect to factors driving task frequency.	Better than Options 1,2 with respect to case mix; better than Options 3,4 with respect to factors driving task frequency.
Burden on State and local staff	None	Low/moderate burden on State accounting staff. No burden on EWs.	Low/moderate burden on State accounting staff. No burden on EWs.	Moderate burden on State accounting staff. Burden on State IT staff for extracting case records. Burden on EWs if new time measurement is needed.	Low/moderate burden on State accounting staff. No burden on EWs.	Moderate burden on State accounting staff. Burden on State IT staff for extracting case records. Burden on EWs if new time measurement is needed.
Relative cost ranking (lowest=1)	1	2	3	5	4	6

Option 1, the modeling of existing aggregate State-level SAE data, is by far the most feasible option. There is no doubt about the technical feasibility, and it has the lowest cost and burden of the options. It is also the only option that by itself would support a robust DD analysis. It could readily be combined with any of the other options as an initial exploratory stage or as a complement. On the other hand, Option 1 uses the most aggregated cost data. This is a very important limiting factor on the ability to model the effects of specific variables of interest, particularly in the domains of FSP policies and management choices. Other limitations are the assumed functional form and the uncertain comparability between pre-1999 data and later years. For explanatory variables that change substantially within States over time, the ability to conduct longitudinal analysis using DD or other appropriate methods somewhat mitigates the limitation of aggregate data. We note that the linear specification under Option 1 is a poor approximation of the true functional form indicated by our conceptual framework. The other options more nearly approximate the functional form.

Option 2, Option 3, and Option 5-National Averages would use existing data from State accounting reports or spreadsheets and are therefore also likely to be feasible. (The feasible version of Option 3 would collect existing data on eligibility worker time distribution by program combination.) Because of the use of existing aggregate accounting data in State records, these options rank second, third, and fourth (respectively) in expected cost. These options would have low to moderate burden on State accounting personnel and no burden on eligibility workers. The cost and burden would depend in part on the extent of data collected on eligibility worker pay and characteristics, and on the composition of overhead. These options would substantially improve the ability to identify major factors ***associated with*** variation in SAE. All three options would allow separate analysis of variation in eligibility worker time, pay, and overhead. Option 3 would add further insight into the effects of cost-sharing among programs, while Option 5-National Averages would add insights into the factors driving task frequency and their impacts on SAE. Key limitations for these three options, as well as the more costly options, would be: the challenge of consistently measuring eligibility worker time and costs, limited data on overhead, and the simplification of all costs other than eligibility worker pay as overhead. In addition, there would be a challenge to collect accounting data and case records in States—including California, New York, and eight others—where counties administer the FSP. These issues appear to be surmountable, but they would add to the cost and burden of a study.

In practice, it would be natural to combine Option 2 with Option 3, Option 5-National Averages, or both. On top of the data for Option 2, the additional data from States for the feasible version of Option 3 would be quite modest, and Option 5-National Averages would not require any additional State data. The potential insights from these two options would be complementary, and each would offset the other's limitations.

A limited version of ***Option 5-All States*** based on interviews with State experts is not listed in the exhibit but could be implemented at a low cost and no burden to eligibility workers. If feasible, this version would provide the ability to compare States in terms of their own eligibility worker time per task, rather than relying on averages estimated from national data (the ***National Averages*** version) or from selected States (the ***Subset of States*** version). There is real uncertainty about the level of accuracy for interview-based estimates and the validity of the methodology in this context, when State responses will be explicitly compared in the study results. Therefore, we view this option as a potential adjunct to other options, rather than a primary option on its own.

Option 4 and Option 5-Subset of States would provide the richest data (among the options that we consider feasible) and, on balance, the best opportunities to identify the factors ***associated with***

variation in SAE. Both options would generalize from data collected in a sample of States. As indicated in Exhibit 9.3, Option 4 would collect eligibility worker time by case type in selected States to estimate standard difficulty factors for case types. Option 5-Subset of States would collect eligibility worker time per task in selected States to estimate the average time per task. These options are clearly strongest for estimating the variation associated with factors that do not change substantially within States over the time period that is feasible to study. It is unclear whether factors that are susceptible to longitudinal analysis would be better assessed with Option 1, but on balance it appears likely that the Options 4 and 5 would have more explanatory power. The disaggregation of SAE would allow more focused analysis of the variables that are relevant to each of the six components of variation (FSP share, case mix, overhead, eligibility worker pay, task frequency, and time per task; Option 4 collapses the last two components). This analysis does depend on the simplifying assumptions of these options, but the alternative would be much more costly and burdensome studies.

The practical downside of these options is that they require more data and thus would be more costly than the other four options.[85] Option 4 may be feasible to implement without collecting new data from eligibility workers, provided that existing RMTS data can be merged with case records. It is possible that some States have existing data for one of these options, but this seems unlikely. Option 5-Subset of States in particular seems likely to require data collection from eligibility workers, or at least from their supervisors, but survey or interview methods could be used to reduce the burden.

While Option 4 and Option 5-Subset of States would complement each other, there may be a need to choose between them. This choice is not clear, because of several unknown feasibility questions: the availability of existing data that would facilitate these options, the feasibility of matching RMTS data with case records, the tasks identifiable in case records, and the sample size requirements for specific data collection approaches. In addition, analysis conducted via Option 1 might shed light on the relative importance of case mix and task frequency, and on the relationship between these factors. This analysis might point to one of these options as the more likely to explain variation in SAE.

Beyond these specific trade-offs among the options, there are some important limitations for potential studies of the variation in SAE. First, both the structure of State accounting systems and the available price index data pose challenges for analyzing the impacts of input prices other than pay and benefits. Second, special-purpose surveys may be needed to identify which States use management practices that are hypothesized to affect SAE: these include variations on the conventional staffing and client flow of local food stamp offices and newer, more radical changes. FNS has undertaken such a survey, but a time series of such data is desirable for future analyses. Finally, while county administration of the FSP may pose some challenges for collecting data on SAE, it also offers some opportunities. Where comprehensive FSP costs are determined for individual counties, there is the potential for comparisons within States to examine the impacts of scale and of policies and practices that vary within States, while controlling for conditions that vary between States but are consistent within the State.

The feasibility of all of these options depends on the cooperation of State agencies and, at least in some States, county agencies as well. Options 2 through 5 would require the cooperation of

[85] While the options are numbered 1 through 5, there are two different versions of Option 5 among those listed in Exhibit 9.3.

accounting personnel. New data collection from eligibility workers would require consent from agency managers and may require consent from individual workers or their collective representatives.

We have sought to identify options that make the most use of existing data, and options that can be integrated into agency operations, in order to minimize the burden on operational workers and the interference with operations. We have also taken into account the potential burden on accounting personnel. The design of future studies would need to address the perceived risks and benefits of the studies to State and local personnel. Depending on the extent of the desired data collection, it may be appropriate to consider incentives or mandates for participation, or ways to integrate data collection with FNS oversight so as to leverage FNS' influence. Another potential strategy for gaining cooperation is to engage key opinion leaders among the State food stamp directors in planning the study and interpreting the results. This would tap their knowledge while making it clear that the study is intended to help them manage the FSP.

Finally, **we note the critical importance of taking State performance into account** when making comparisons of SAE and interpreting differences in SAE among the States. A State with a low level of SAE per case, even after adjusting for uncontrollables such as case mix and labor markets, is only more efficient than States with higher levels of SAE per case if its performance is as good or better. We have suggested ways to use each of the options to estimate a normalized cost per case as a basis for comparisons of performance on the key dimensions of accuracy, timeliness, and access.

A Suggested Program of Research on Variation in SAE

Based on the preceding data assessment, we suggest a sequence of concepts for feasible and informative studies of variation in SAE. While we present them as discrete studies, we show how each study would help guide others presented later in the sequence. In developing this sequence, we were mindful of the lack of knowledge about what are actually the important sources of variation in SAE and the potential cost of the studies that would provide richer data. Thus, the sequence begins with Studies 1 and 2, which are the least expensive approaches and include strategies that would resolve uncertainties about the feasibility and potential value of more expensive approaches. Studies 3, 4, and 5 are suggested as intermediate steps between the most basic studies (Studies 1 and 2) and the most ambitious studies (Studies 6, 7, and 8). These last three studies are presented as alternatives for implementing the approaches that would provide the richest data—Option 4 or Option 5-Subset of States. Exhibit 9.4 summarizes the studies, their prerequisites, their key data, their expected contributions to understanding of interstate variation in SAE, and their relative expected cost. In this exhibit, "low" cost means expected cost under $500,000; "moderate" cost means expected cost between $500,000 and $1,000,000; and "high" cost means expected cost more than $1,000,000. The expectations are based on confidential estimates provided separately to FNS. The combined cost of multiple studies conducted together would be somewhat less than the sum of the cost of the studies conducted separately, because of the integration of study design and reporting.

Study 1: Exploratory Analysis of Existing Aggregate Cost Data

This study would analyze existing aggregate cost data, as in Option 1, using reduced form difference-of-difference regressions. We view this as a relatively modest, low-cost first step that could provide immediate insights and identify directions for future research. The primary focus would be on time-series regression analysis of certification costs (potentially using both narrow and broad definitions), but the scope could be expanded to include the costs of other functions could be analyzed as well.

Exhibit 9.4

Suggested Program of Studies of Interstate Variation in FSP State Administrative Expenses

Study	Other Studies That Are Prerequisites[a]	Key Data Collected from States	Expected Contribution	Relative Cost
1. Exploratory Analysis of Existing Aggregate Cost Data	(none)	(none)	Identify major factors likely to affect SAE, identify directions for research	Low
2: Survey-Based Decomposition of Certification Costs	Study 1 (preferable)	Total FSP eligibility worker time and cost, average eligibility worker pay rate, cost allocation methods, availability of data for other studies	Identify major factors likely to affect eligibility worker time, eligibility worker pay, and overhead	Low (if added to Study 1)
3: Exploratory Study of Automated Data Processing (ADP) Costs	Studies 1 and 2 (preferable)	Components of ADP costs, features of ADP systems, opinions on possible explanations of ASP cost differences	Identify major factors likely to affect variation in SAE, how to measure the effects of ADP spending on certification costs	Low
4. Pilot Study of Approaches to Collecting Disaggregated Eligibility Worker Time per Case	Studies 1 and 2 (preferable)	Expanded RMTS with case/task type for each event, or merged RMTS and case records	Feasibility of full-scale study using tested method(s) for Option 4 or Option 5-Subset of States	Low to moderate
5. In-Depth Collection of Accounting Data and Expert Interviews in All States	Study 1 preferable Study 2 necessary	Composition of SAE other than eligibility worker costs, expert estimates of eligibility worker time per task, opinions on reasons for variation in SAE	Identify composition of SAE, major factors likely to affect costs other than eligibility workers, effects of differences in tasks performed, other explanations for variation in SAE	Moderate
6. Full-Scale Study Using Enhanced Eligibility Worker Time-Use Data	Study 1 preferable Study 2 necessary Study 4 preferable	Enhanced RMTS file with case type or task indicators	Variation due to case mix, eligibility worker pay, overhead, tasks done, time per task (if tasks identified)	Moderate to high moderate (depends on number of States, State role)

Exhibit 9.4 (continued)

Suggested Program of Studies of Interstate Variation in FSP State Administrative Expenses

Study	Other Studies That Are Prerequisites[a]	Key Data Collected from States	Expected contribution	Relative cost
7. Full-Scale Study Merging Case Records with Eligibility Worker Time-Use Data	Study 1 preferable Study 2 necessary Study 4 preferable	RMTS file with case number, case records	Variation due to case mix, eligibility worker pay, overhead, tasks done	High moderate to high (depends on number of States, ease of processing)
8. Full-Scale Study Collecting Data on Average Time per Task by Case Type	Study 1 preferable Study 2 necessary Study 4 preferable	Records of eligibility worker service tasks with task type and case number; case records; supervisor interviews	Variation due to case mix, eligibility worker pay, overhead, tasks done, time per task	High

[a] Prerequisites for a study should be done before or in combination with that study.

[b] In this exhibit, "low" cost means expected cost under $500,000; "moderate" cost means expected cost between $500,000 and $1,000,000; and "high" cost means expected cost more than $1,000,000. The expectations are based on confidential estimates provided separately to FNS.

Extant FNS data and other public databases would be used to construct explanatory variables. Questions to be addressed would include:

- How much of the cost variation can be explained by pay differences, and how much of these differences can be explained by general labor market forces? Data on pay for public welfare workers (or eligibility interviewers) and similar private-sector occupations would come from existing national databases.
- What case characteristics are related to certification costs?
- What is the relationship of certification costs to the frequency of certification and recertification, overall and by case type? Data on the frequency of activities would come from FNS-366B reports or tabulations of QC microdata.
- Is there evidence that budget constraints affect certification costs? This question could be examined by looking at the relationship of certification costs to State per capita income, per capita revenue, and indicators of fiscal capacity and need.
- After controlling for case characteristics, pay rates, activity frequency, and fiscal condition, what States have large positive or negative fixed effects, and what do they have in common?
- What is the relationship of SAE to payment accuracy, timeliness, and program access, after taking into account the uncontrollable factors that affect SAE?

Study 2: Survey-Based Decomposition of Certification Costs

In this study, States would be surveyed to collect several types of data needed to conduct analysis based on Option 2 and Option 5-National Averages. The survey would also gather data to clarify the feasibility of more detailed analysis approaches. As discussed above, Option 2 would divide variation in certification costs into three parts: eligibility worker time per case, eligibility worker pay, and "overhead", i.e., the ratio of other certification costs to eligibility worker costs. Option 5-National Averages would disaggregate eligibility worker time per case as a function of case mix, task frequency, and intensity of effort relative to the task workload.

A basic version of this study would request the following data from the States:

- Total eligibility worker cost for the FSP
- Total eligibility worker complement of full-time equivalents and FSP percentage
- Job classification of eligibility workers and other local staff who perform certification activities
- Pay scale and average pay for eligibility workers and other local FSP staff
- Total local labor and nonlabor cost for FSP certification
- FSP cost, total staff complement, FSP percentage, pay scale, and average pay for centralized units performing certification tasks (where applicable)
- Breakdown of State-level certification costs by cost pool
- Methods used to determine eligibility worker time for the FSP and proportion of workers covered by each
- Description of data collected and entered from RMTS and personnel activity reports
- Availability of RMTS and personnel activity report data in electronic form
- Programs sharing costs with the FSP at local and State levels
- Rules for allocation of shared eligibility worker costs
- Clarification of what types of costs are included in each reporting category and the basis for allocation by program (particularly treatment of local office management and nonlabor costs, and State program management).

The study would be enhanced if the survey included the following additional data requests:

- Percent of FSP eligibility worker time by program combination (FS only, FS/TANF, etc.) allowing analysis following the extant data version of Option 3
- Frequency of major FSP case management activities (if available from existing reports)
- Views of State FSP directors on reasons for variation in SAE, relationship of the budget process to spending, and factors that should be considered in SAE comparisons across States
- Steps taken by States to reduce certification costs or improve efficiency

- Qualifications for eligibility worker and other job classifications performing certification tasks.
- Average years of experience of eligibility workers.
- Structure of local office operations (specialization of workers and units by program or function).
- Automated data processing system features expected to affect costs or worker productivity.

The study would combine these data with existing data on SAE caseload characteristics, policy options, factor prices, and political, economic, and social conditions. The analysis would model the three elements of Option 2: eligibility worker time per case, eligibility worker pay, and overhead. Additional analysis would implement Option 5-National Averages with the eligibility worker time data and data on task frequency by case type from FNS sources. If data on eligibility worker time by program combination were collected, the analysis specified under Option 3 would be implemented.

The cost of this study would be low if it were added to Study 1, and the exploratory analysis of aggregate data would help guide the analysis of the more disaggregated data and the data sought in the survey. A State survey could also be combined with any of the other concepts described below.

Study 3: Exploratory Study of Automated Data Processing Costs

As suggested in this report, there is considerable interest in the role of automated data processing costs, both as a component of SAE and as a possible investment with payoffs in productivity of FSP operations. While simple analysis of variation in ADP costs could be done as part of the Exploratory Analysis study, a three-part approach would be more insightful:

- Descriptive analysis of differences and trends in ADP development and operations costs, and their relationship to characteristics of States and their FSP operations
- Investigation and analysis of available comparative information on the capabilities and key design features of ADP systems used for the FSP, cross-referenced to the cost data
- Collection and analysis of further data, through interviews and review of documents, to examine the differences between high-cost and low-cost States not readily explained by the extant data.

Under the ideal sequence, Study 1 and Study 2 would be conducted before Study 3. One could then examine the characteristics and costs of ADP systems in States with high (or low) performance relative to their normalized SAE per case (adjusted for case mix, market wages, economic conditions, and other uncontrollables). The cost of Study 3 would be low.

Study 4: Pilot Study of Approaches to Collecting Disaggregated Eligibility Worker Time per Case

Given the variety of methods that might be used to disaggregate eligibility worker time per case by case type or activity, it may be worthwhile to test these methods on a limited scale before undertaking a full-scale study. In particular, there are two methods of gathering detailed eligibility worker time data for Options 4 and 5 that appear potentially feasible but have not been used before: (a) merging RMTS data with case data, and (b) expanding an existing RMTS to include task information. These

methods would be particularly worthy of pilot-testing in one or more States. The goal of this pilot study would be to gain a better understanding of the potential, limitations, and cost of the methods. Thus, samples collected would be smaller than the size needed to meet the standards of precision for a full-scale study; data would be collected from States that volunteer or otherwise would provide easier settings for the test, rather than from a more representative group of States. The other suggested methods of collecting data from eligibility workers (event logs and surveys) have been used for FSP studies, so there is less intrinsic need to test them (beyond the standard pretest for clearance of data collection). On the other hand, including these methods would allow tests of multiple approaches in the same States; comparisons of results would provide insights about the relative feasibility and validity of the approaches. In addition, there would be synergies in using the same case record files for more than one approach.

The cost of Study 4 would be low to moderate, depending on the number of approaches tested, the number of States, and the role of the States. Some States might be willing to take on some of the cost of the test in order to have access to the results (e.g., training workers to complete new forms, processing the merge of RMTS and case records, etc.), while others might expect the researchers to carry out all of the data collection and processing.

Study 5: In-Depth Collection of Accounting Data and Expert Interviews in All States

Although data for Option 2 and Option 5-National Averages would be collected by survey, Study 2 would probably identify some significant unknowns that would warrant more in-depth data collection. Therefore, a natural follow-up study would collect three kinds of data in each State: accounting data for the decomposition of overhead, expert estimates of the eligibility worker time per task, and discussion of the reasons for variation in SAE. The accounting data would be collected to attempt the decomposition of overhead by level (local/State), between labor and nonlabor, and breaking out key nonlabor costs such as rent. The estimates of eligibility worker time per task would be obtained through interviews with key informants, such as trainers, business analysts, or managers with extensive knowledge of local operations. These data would permit implementation of the feasible version of Option 5-All States. During the course of the contacts for these two data collections, there would be an excellent opportunity to discuss the findings of studies of SAE, both in general and with respect to each State individually. These discussions would help get "inside the black box" to understand the findings and suggest future directions for research. The cost of such a study, including design, data collection, analysis, and reporting, would be moderate; a low-cost version could be done if the data collection were limited to 15 or fewer States.

Study 6: Full-Scale Study Using Enhanced Eligibility Worker Time-Use Data

This study has the potential to be the least costly of the three approaches that appear to be feasible ways to implement Option 4 or Option 5-Subset of States. In a representative group of States, the RMTS or personnel activity report would be modified to capture data on the type of case served, the task, or both for each recorded event. Recording the task is the modification most likely to be feasible, because eligibility workers will always know this, but they may not have immediate access to the information needed to determine the case type. There are two different scenarios, with different cost implications.

Under one scenario, the researchers collaborate with the State to modify the forms, and the State carries out the data collection and tabulates the data. The data collection includes training for workers

and supervisors, sampling workers (and moments for RMTS), distributing and collecting forms, and tracking and following up on missing forms. In a paper system, processing includes data entry and cleaning; an automated system eliminates the former but not the latter. Thus, the cost for the researchers would be limited to the up-front costs of design and the back-end costs of constructing analytic files, analysis, and reporting. The cost of such a study in five to seven States would be moderate.

Under the other scenario, the researchers would implement the study. The State would approve the forms and supply the sample frame, and the researchers would do the rest. The most efficient solution would be an automated, web-based survey, but there are likely to be major hurdles in setting this up from outside the State Agency. Instead, the second-best alternative would be a telephone-based system, akin to a random-digit-dial survey. For this scenario, the cost in five to seven States would be moderate to high moderate. ("High moderate" means at the high end of the moderate range.) These costs do not include the additional burden on the workers, but this would be quite small for each worker if the RMTS were implemented statewide over several months.

Study 7: Full-Scale Study Merging Case Records with Eligibility Worker Time-Use Data

This approach also appears to be a feasible way to implement Option 4 or Option 5-Subset of States, and it would be less burdensome to individual workers than the alternatives for these options (Study 6 and Study 8). In a representative group of States, researchers would collect and merge two data sets: RMTS or activity report data in electronic form with a case number for each event, and case records for the same time period. As discussed above, a pilot test of this method is recommended before undertaking a full-scale study, to resolve technical uncertainties and better understand the cost to the State and to FNS. Efforts for the study would include: designing the sample and analysis, securing State cooperation and access to data, obtaining and processing files, and analysis and reporting. Because of the use of case records in addition to RMTS data, this study would be more costly than Study 6: the cost would be high moderate to high, depending on the number of States and the ease of processing their data.

Study 8: Full-Scale Study Collecting Data on Average Time per Task by Case Type

This study would essentially replicate the 1989 certification cost study, which was conducted in four States. Eligibility workers in selected offices would record each task for a specified period (such as a month), including the type of task, the duration, and the case type or case number. Supplementary time per task data might be collected from supervisors and support staff via interviews or surveys. Tests for differences in average time per task by case type would be conducted. Case records would be analyzed to determine the frequency of the tasks and the relationship of case characteristics to task frequency. Data from the States with the in-depth data collection would be combined with aggregate data for all States (SAE, case characteristics, economic conditions, etc.) for an analysis combining the approaches of Options 4 and 5. The cost of Study 8 would be high. As noted earlier, the 1989 study cost was $2.3 million in current dollars; this provides a very rough guide for the potential cost of such a study.

Appendix A

Background on Food Stamp Program Administration

This appendix presents background information for this report on the administration of the FSP. It begins with an overview of the administrative functions of State and local agencies. The appendix then describes the typical administrative structure of States and local agencies and its variants. (FNS has its own administrative functions, but these are not relevant to studies of State administrative expenses.)

FSP Administrative Functions

The primary administrative functions of State and local agencies in the FSP are **certification** of eligible households and issuance of benefits. In addition, these agencies provide two kinds of services to eligible households: **employment and training** (E&T) services for adults who are subject to work requirements, and **nutrition education** for income-eligible adults and children. Some key support functions are **automated data processing** (ADP), **Quality Contro**l (QC), **fraud control**, and **fair hearings**. State and local agencies also carry out **other administrative functions** in support of certification, issuance, and provision of FSP services.

The description below of FSP administrative functions reflects operations from approximately 1990 to the present, with primary emphasis on how the FSP has operated in the last 10 years. We assume that data prior to 1990 are not likely to be used in analyses of variation in SAE. The reasons for this assumption are discussed in the report.

Certification

Certification activities include the processing of initial applications for Food Stamp benefits, periodic recertification of Food Stamp households, and other actions to obtain, verify, and apply information on households' FSP eligibility and entitlement to benefits. These activities are generally performed in local FSP offices by State or local government employees. Some States use centralized call centers for some activities that do not require face-to-face contact, including certification or recertification interviews conducted under waivers. Also, applicants in some States use on-line applications with or without assistance from community organizations (GAO, 2007). Local FSP offices usually perform certification tasks for other State-administered non-FSP cash assistance programs (such as Temporary Assistance for Needy Families or TANF and General Assistance) and often for medical assistance, low income energy assistance, and other means-tested programs for low-income residents.

Issuance of Benefits

Over the history of the FSP, States have mainly used one of two systems to issue FSP benefits. Originally, all States issued benefits in the form of paper "food stamp coupons" to recipients (thus the name of the program). State methods of issuing those stamps varied (including State, local and contractor operations).

More recently, States have switched over to issuing FSP benefits through an electronic benefit transfer (EBT) system, which is similar to a debit card system.[86] In 1993, Maryland became the first State to replace the coupon issuance system with EBT. By FY 2005, all FSP households received benefits via EBT. Nearly all States contract with private firms to operate their EBT systems, but some issuance-related functions (such as card issuance) may be performed at local FSP offices (FNS, 2008b). A very small proportion of FSP benefits (less than 0.2 percent) are issued in cash as a supplement to SSI or State aid to elderly or disabled persons.[87] This program option is confined to a limited number of States or project areas.

Employment and Training

Each State provides FSP employment and training (E&T) services for FSP recipients who are subject to job search and work requirements. E&T services are provided through local FSP/TANF offices and other agencies, such as workforce development agencies and community-based organizations. (GAO, 2003) Allowable E&T components include supervised job search, job search training, work experience or workfare, vocational training, work-related education, and self-employment training.

Nutrition Education

Since 1992, States have had the option of providing nutrition education to persons who are eligible for food stamp benefits, with the goal of promoting healthy food and lifestyle choices. Most States have agreements with the State Cooperative Extension Service, State universities, or other agencies to provide food stamp nutrition education (FSNE). FSNE grew from 7 States in FY 1992 to all 50 States and the District of Columbia by FY2005.

Automated Data Processing System Development and Operations

Each State operates a computer system to support FSP operations, usually as part of an integrated eligibility system that also supports TANF and other means-tested programs such as State General Assistance, Medicaid, or the Low Income Home Energy Assistance Program. Some State Food Stamp Agencies operate their own computer centers, while others contract out this function or use a center that services multiple State agencies.[88] In some States the FSP is county-operated (such as North Carolina), the State operates the ADP system, and some counties supplement this system with additional ADP systems; in others, such as California, individual counties operate their own ADP systems, but there is also a statewide FSP recipient database. Automated data processing (ADP) costs include development of new or upgraded systems, operation and maintenance of computer hardware and software, data communications networks, and local office equipment.

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[86] Nearly all States use "on-line" EBT systems, in which a terminal at the point of sale interacts with a central "host" computer to debit the recipient's account. Wyoming and Ohio implemented "off-line" EBT systems, in which benefit data are stored in a card equipped with a computer chip, transactions are authorized by the card, and the point of sale terminal later submits a file of transactions to the "host" for settlement. Ohio converted to an on-line EBT system in 2006, and Wyoming converted to on-line EBT in 2007.

[87] These cash-out arrangements exist in a limited group of States and do not include the cash in lieu of food stamp benefits for SSI recipients in California, who are not considered food stamp recipients.

[88] Source: Interview with FNS grants management officials, October 2007.

Fraud Control and Fair Hearings

State and local FSP agencies investigate evidence of fraud by recipients through review of case records, interviews with recipients, and third-party sources of information. Fraud investigations most often involve misrepresentation of eligibility or dual participation, but other types of investigations deal with false reports of lost benefits and trafficking in benefits. When the FSP agency finds evidence of fraud, it may initiate recovery of funds, termination of benefits, or prosecution. FSP agencies conduct fair hearings upon request by applicants or recipients who are subjected to adverse action (benefit reduction or termination).

Other State and Local Program Administration

State and local FSP agencies carry out a number of other administrative functions, including quality control, management evaluation, outreach, demonstration projects, and oversight of program operations. Under the mandatory quality control (QC) system, each State must review a sample of active FSP cases and a sample of closed or denied cases to determine whether the determination of eligibility and benefits is correct. Each State must also conduct management evaluation reviews of local office operations.

Composition of Total SAE

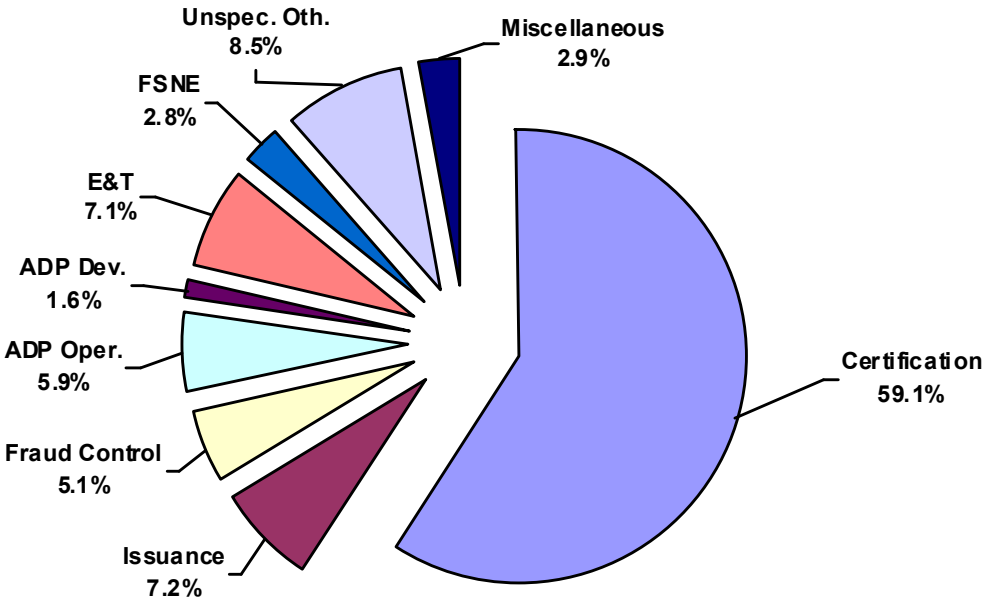
Exhibit A-1 shows the percentage distribution of the national total FSP administrative cost for the period from 1989 to 2005 (summed over all 17 years) among FSP administrative activities. Certification was by far the largest category, representing three-fifths (59.1%) of the total. This percentage was essentially the same over the 17 years in the study. The average total annual cost for certification was $2.54 billion. The next largest categories were unspecified other (8.5%), issuance (7.2%), employment and training (E&T) services (7.1%), and automated data processing (ADP) operations (5.9%). ("Unspecified other" is the category for costs not reported elsewhere, and so the scope of these costs may have varied from State to State or over time.) The smallest categories were miscellaneous, fraud control, food stamp nutrition education (FSNE), and ADP development.

FSP Administrative Roles of Local Offices, State Agencies, and Other Organizations

Where the costs of FSP functions are incurred depends on how a State administers the FSP. In general, each State's responsibilities in the FSP are carried out by a combination of local offices and the State FSP agency, with assistance from other agencies or contractors. Below, we describe the most common pattern of roles for each type of agency and the key variants. This description is based on preliminary information from interviews with FNS and State officials, and on existing literature on FSP administration and costs (notably Logan, Rhodes, and Sabia, 2006). Throughout this report, "State Agency" refers to the State department or other agency that supervises the FSP.

Exhibit A-1

Percentage of Total FSP Administrative Cost, 1989-2005



Key to abbreviations: "Unspec. Oth."=Unspecified Other. FSNE=Food Stamp Nutrition Education. E&T=Employment and Training. ADP Dev.=Automated Data Processing (ADP) Development.

ADP Oper.=ADP Operations.

Source: Logan, Kling, and Rhodes, 2008.

Local Offices

Typically, low-income households apply for FSP benefits at local offices. (There are alternate processes, as discussed below.) These offices also process information on changes in eligibility or benefit amount during certification periods, recertify households, and perform the other certification tasks. In some States, local FSP offices issue EBT cards or assist recipients who have problems with EBT cards or accounts; otherwise issuance is a State function that typically is contracted out. For the E&T program, local FSP offices usually determine which FSP participants are required to take part. The local FSP office may also provide E&T assessment and services, or refer these participants to other offices for these components. Local FSP offices do not provide FSNE services, but they sometimes provide referrals to or serve as delivery points for FSNE providers.

There are two distinct types of local FSP offices: local facilities operated by the State Agency and independent county agencies.[89] In 40 States and the District of Columbia, the State Agency operates the local offices; in these States, the FSP is considered "State-administered". In 10 States, the county governments operate the local FSP offices, and the State agency oversees them; the FSP in these

[89] In some States, major cities operate like counties, having equivalent powers to tax and spend. For simplicity, this discussion treats these cities as counties.

States is "State-supervised, county-administered".[90] Local office employees—who represent the largest cost in administering the FSP—are employed by the State or county, whichever level administers the local level. Where the FSP is State-supervised and county-administered, there are two levels of government involved, each with its own elected officials, management, appropriations, accounting system, and personnel system.

State Food Stamp Agency and Other Organizations

The role of the State Food Stamp Agency depends on whether the State Agency directly administers the FSP at the local level, but there are roles that are common to all States. First, State Agencies provide policy direction and oversight to all aspects of FSP administration, including those involving counties and service providers (which may be other government agencies or private contractors). Second, State Agencies contract with service providers to operate their EBT issuance systems and to provide E&T and FSNE. Third, State Agencies develop and operate ADP systems for the FSP, either in-house or with support from service providers. Fourth, State Agencies carry out mandatory support functions, including fair hearings, quality control, and management evaluation.

The role of the State Agency varies across States in several ways.

- As noted, most State Agencies directly administer certification and other functions of local offices, while a minority supervises county agencies performing these functions.
- Some State Agencies operate call centers or websites that provide alternative interfaces with customers for providing information, submitting FSP applications, reporting household changes, recertification, troubleshooting, or other interactions (APHSA, 2006).
- Some State Agencies establish agreements with private voluntary organizations that assist FSP applicants with initial applications and other certification activities (GAO, 2007).
- Some State Agencies operate their own ADP facilities (including computer centers and networks) and maintain their own software, while others contract these functions out to centralized State support agencies (e.g., Department of Administration) or to private firms. Similarly, development of ADP systems may be in-house, outsourced, or a combination of these approaches.

[90] Counts provided via personal communication with FNS.

Appendix B

Accountability and Reporting of State FSP Administrative Expenditures

The process of determining State administrative expenses (SAE) for the FSP is complex. First, States must record all of their administrative expenditures (payroll, purchases, interagency transfers, etc.) for the FSP and other programs following standard government accounting procedures. Second, States must determine the expenditures allocable to each program. Many expenditures that benefit the FSP also benefit other programs. FSP workers often work on other public assistance programs (e.g., TANF, Medicaid, State cash benefit programs, etc.). Supervisors and administrators—from office directors up through the highest level of State bureaucracies—also work on multiple programs. Further, nonlabor expenditures—data processing, facilities, supplies, etc.—also support multiple programs. In order to determine expenditures for the FSP, States need methods to allocate the costs of such shared resources between the programs that benefit from the expenditures. Finally, once SAE for the FSP has been determined, the State must report the expenses to FNS in a standard format, with expenses broken down by program function (of which the largest is certification).

This appendix discusses how States deal with these challenges. Understanding what States do is crucial for understanding what data are available and their quality. First, we summarize the framework of rules and oversight for reporting of SAE. Next, we note the role of accounting systems in the SAE determination process. In the following section, we review the basic methods for allocating expenses to the FSP. Then, we describe typical costs and allocation methods for each of the major types of FSP administrative activities: local agency operations, other client services, data processing and telecommunications, program oversight and support, and general administration (within the State Food Stamp Agency and statewide). We conclude with a brief description of the SAE reports submitted to FNS.

As noted in Chapter One, this report is based on interviews with Federal officials and with officials in four States. Thus, the description does not necessarily apply in detail to all States. However, our information is sufficient for a broad overview to provide background to the discussion in the report on the comparability and usefulness of data from the administrative cost accounting and allocation processes for studies of variation in SAE.

The discussion in this report is generally framed in terms of what States do. In 40 of the 50 States and in the District of Columbia, the State government (or its equivalent) administers the FSP. However, county governments administer the FSP under State supervision in 10 States, including one of the four included in this study. In these States, the counties measure and allocate FSP administrative expenses, and submit claims to the State for reimbursement. The State then combines the county expenses and its own administrative expenses, and reports the State total to FNS. For ease of discussion, we describe cost allocation as conducted where the FSP is State-administered. For most aspects of cost reporting, the methods and issues are the same across these two structures for the FSP. We do, however, note and discuss how cost allocation is different where the FSP is county-administered and State-supervised.

Allowable Expenditures

The Food Stamp Act (P.L. 93-347, as amended) authorizes the U.S. Department of Agriculture (USDA) to pay half of all States' costs for administering the program and requires "efficient and effective administration" by the States. Allowable costs are carefully spelled out in Federal regulations (see Title 7/Agriculture, Part 277/Payments of Certain Administrative Costs of State Agencies). The basic principles are laid out in Appendix A to 7:277/Principles for Determining Costs Application to Administration of the Food Stamp Program by State Agencies. Specifically, the "fundamental premises" are (A:2):

> *(a) State agencies are responsible for the efficient and effective administration of the Food Stamp Program through the application of sound management practice.*
>
> *(b) The State agency assumes the responsibility for seeing that Food Stamp Program funds have been expended and accounted for consistent with underlying agreements and program objectives.*
>
> *(c) Each State agency, in recognition of its own unique combination of staff facilities and experience, will have the primary responsibility for employing whatever form of organization and management techniques as may be necessary to assure proper and efficient administration.*

There are two phases of Federal oversight of SAE. Before funds are expended, State Agencies are required to submit their SAE budgets to FNS for prior approval (7 CFR 272.2). Then, after expenditures are reported, they are reviewed periodically by FNS and included in the State Agencies' organization-wide audits conducted under instructions from the Office of Management and Budget (OMB Circular A-133). In practice, under the third fundamental principle, State Agencies have substantial latitude in designing their FSP administrative systems and in allocating resources. State Agencies are required to justify major year-to-year changes in their budgets for operations, and they must provide detailed justification of ADP development budgets. On the other hand, the State Agencies are not required to provide a bottom-up justification of their operating budgets in relationship to the caseload they expect to serve and the functions required to administer this caseload. Preliminary information from discussions with FNS officials suggests that, in practice, they have limited scope to question actual expenditures. FNS oversight appears to focus on whether costs are adequately documented and correctly allocated, and whether prior approval was obtained if required.

Accounting Systems and Controls

States use their accounting systems to record the funds appropriated for administering their programs and the disbursements of these funds. Thus, the most fundamental data underlying State reports of SAE are the transactions for payments to employees, contractors, suppliers, and other agencies for the goods and services that enable the programs to operate.

For this feasibility study, we have assumed that the goal of future studies will be to explain variation in actual reported FSP administrative expenses. While there may be economic costs that are not identified under government accounting rules, such as the value of uncompensated overtime by exempt workers, we have disregarded this aspect of administrative costs.

We have further assumed, as a necessary and useful simplification, that this study is not concerned with the possibility that actual administrative expenditures may occasionally include errors in disbursements (underpayments or overpayments). Control of disbursements is a fundamental responsibility of State accounting systems and officials, and disbursements are subject to State and Federal audits and other oversight. None of the discussions in the interviews suggested that errors in disbursements might materially and systematically affect the variation in reported expenses. We have, therefore, focused our investigation on the factors that may introduce error in the allocation and reporting of the actual disbursements. Error in this context includes any difference between the actual reported expenses and what the State would report if the actual disbursements were allocated and reported in a way that accurately reflects the use of the disbursed funds.

Methods for Allocating Expenses to the FSP

There are three basic ways that States allocate expenses to the FSP: direct charges, allocation based on usage, and allocation in proportion to usage of other resources. Below, we briefly describe each of these basic methods, which are explained in more detail in subsequent sections.

Expenses that are exclusively attributable to the FSP are **directly charged** in the accounting system. Compensation for local or State staff who work only on the FSP is one type of expense that may be directly charged; materials for FSP outreach (posters etc.) and payments to EBT vendors for benefit issuance represent other examples.

Shared expenses for the FSP and other programs may be **allocated in proportion to usage**. For personnel costs, a time measurement system is used. One type of time measurement is periodic time reporting (timesheets); in this method, specified personnel record all of their time on a continuous basis, including program-specific time, joint time for two or more programs, and nonspecific time (breaks, leave, general meetings, etc.). The other main method for measuring staff time across programs is a random-moment time study (RMTS), in which randomly selected personnel record what they are doing at randomly selected moments, and the distribution of moments is used to estimate the overall distribution of time for the specified population of personnel. Computer usage may be monitored in various ways: processing units, storage space, pages printed, etc. Once the usage of a resource for all programs is determined, each program's cost is computed.

Finally, shared expenses may be allocated **in proportion to usage of other resources**. This method is used for expenses for which it is infeasible or disproportionately burdensome to determine usage by the FSP and other programs. For example, costs associated with operating and maintaining facilities cannot readily be allocated in proportion to usage, because activities for more than one program can occur in the same space. Facility costs could be allocated simply in proportion to the distribution of staff time across programs or alternatively in proportion to the costs allocated through the other two methods (direct charges and in proportion to usage).

The choices among these cost allocation methods are governed by Federal rules. Each State must establish a Public Assistance Cost Allocation Plan (PACAP) to specify how it determines the costs that will be charged to the FSP, TANF, Medicaid, and other Federal "public assistance" programs. The PACAP identifies all of the activities or functions performed by the State agency, the types of costs associated with these activities and functions, the programs that benefit, and how costs are charged or allocated to these programs. Groups of related costs that are allocated the same way are

defined as "cost pools". (For example, the State's fraud investigation unit could be a cost pool, with personnel and nonpersonnel costs allocated in proportion to the number of investigations for each program.) In addition, the State must have a Statewide Cost Allocation Plan to specify how statewide administrative costs (such as centralized services, audits, purchasing, etc.) are allocated across agencies and programs. Counties that claim Federal funding must have their own cost allocation plans. The cost allocation plans must meet the principles of OMB Circular A-87. The Department of Health and Human Services, Division of Cost Allocation (DCA), issues additional guidelines for PACAPs (HHS, 1997 and HHS, 2002). Both DCA and FNS review cost allocation plan whenever they are changed. In addition, FNS reviews actual expenses to determine (among other things) whether States are following their cost allocation plans. Cost allocation plans contain a considerable amount of information about State agencies' activities, organizational units, and types of costs, and thus these documents represent a potential resource for research on SAE.

States use several methods to allocate local office costs for the FSP. In the following section, we describe the methods used to allocate local labor and nonlabor costs.

Local Office Costs

Local office costs are the largest component of FSP administrative expenses, and workers dealing directly with customers are the largest component of local office costs (HHS, 2002). In the conventional approach to FSP administration, local offices of the State Food Stamp Agency conduct all certification activities (intake, case maintenance, recertification, etc.).[91] Local offices may also be involved in Food Stamp Employment and Training (E&T) functions. These E&T functions may include eligibility-related roles (determining which participants are subject to E&T requirements and whether they are complying, and applying sanctions); in some States, local offices also operate program components such as supervised job search. Local staff may have roles in fraud control, such as establishing claims for overpayments, and in some functions for electronic benefit transfer (EBT) systems (issuing EBT cards, training recipients, etc.).

Local offices usually administer eligibility for FSP, TANF and Medicaid, and often for other programs, such as State cash and medical assistance programs, and the Low Income Heating and Energy Assistance Program (LIHEAP). In some States, these "income maintenance" or "public assistance" functions are collocated with social services (e.g., child protective services), child support enforcement, or employment services and workforce development. Collocated programs share facilities and may also share a local office director and general administrative staff (personnel office, mailroom, finance and accounting, information technology, etc.).

Some local office workers specialize in a single program, while others serve multiple programs. Local offices may have varying mixes of single-program and multi-program or "generalist" workers. In three of the four States interviewed, most or all FSP eligibility workers also serve other programs. In North Carolina, most FSP eligibility workers do not serve other programs, but a minority do, and administrative and support staff are shared between the FSP and other programs, as well as facilities, office equipment, supplies, and other non-personnel resources.

[91] As discussed elsewhere in this report, some States use call centers to perform certification functions that do not require face-to-face contact.

The States use multiple methods to allocate local office costs for the FSP. In the following sections, we describe the methods used to allocate labor and nonlabor costs.

Local Labor Costs

The methods for allocating local labor costs are particularly important. According to all of the States we spoke to, local labor costs represent the largest component of FSP administrative costs. In addition, the distribution of local staff time or labor costs is often used to allocate other costs, such as local nonlabor costs or State-level labor costs. For these reasons, the methods for allocating local labor costs have a major influence on the overall accuracy and consistency of FSP expenditure reporting. At the same time, data on local labor costs from the accounting process represent an important potential source of insights into overall variation in FSP SAE.

For personnel costs, the starting point in the allocation process is payroll records. Payroll records indicate the amount paid to staff during each accounting period, and the cost pools to which the compensation is charged (including salaries and benefits).

The simplest case is the allocation of costs for staff members who work only on the FSP. Their compensation is charged directly to a FSP cost pool. These staff must certify semi-annually that that they work only on the FSP. Most offices in North Carolina have separate units for the FSP, however, so the workers complete semi-annual effort certifications. For these workers, no detailed time reporting system is needed for cost allocation.

Allocating the cost of staff members who work on more than one program is more complicated. Such staff members include multi-program eligibility workers, support staff, supervisors, and managers. For these personnel, compensation is charged to one or more shared cost pools. For multi-program eligibility workers, the cost pool is then allocated among programs using one of two approved time reporting methods: random-moment time studies or personnel activity reports.

The HHS Division of Cost Allocation (DCA) recommends random-moment time studies (RMTS), and most States (including Nevada, New Mexico, and Pennsylvania) use this method for most or all of their eligibility workers. (Some States include other income maintenance workers who have direct client contact in their RMTS.) The State constructs a sample frame of eligibility workers and their schedules, then selects "worker moments" (i.e., worker X at time Y on date Z) using a random sampling algorithm. For each sampled "worker moment", the selected worker is required to report what he or she is doing, including: the program or program combination served, the case number or name of the client, and sometimes a code indicating the general type of activity (initial application, change, recertification, etc.). If the worker is not serving a client or otherwise working on a specific program, then only the activity is recorded (break, leave, general meetings, etc.). The DCA has established a minimum statewide sample of 2,000 valid RMTS observations per quarter; States need to sample additional observations because there are always some that are not completed and valid. (For example, the worker may not be actually scheduled to work at the sampled moment.) The State tabulates the percentage of observations for each program and program combination, and uses these percentages to allocate the total compensation cost for all of the eligibility workers, including those who had moments sampled in the quarter and those who did not.

Under the personnel activity reporting method, each worker reports all activity during a month or shorter period, indicating the program or programs served and, for activities involving individual

clients, the name or case number. Local social service offices in North Carolina use this method, albeit for relatively few FSP workers (due to the predominance of separate FSP units). Multi-program eligibility workers and social service workers complete daily records of client contacts and other activities, and then complete a monthly summary of time by program or program combination. These data are used to allocate the workers' compensation to the FSP and other programs.

States generally use the time-reporting data from eligibility workers when they allocate local labor costs for support staff, supervisors, and managers, but there are different approaches.

- Some States use the percentage of eligibility worker time by program from a RMTS to allocate all local labor costs. In these States, the RMTS covers all eligibility workers and all programs operated by the local offices.
- Other States combine RMTS or personnel activity reports with effort certifications to determine the percentage of full-time equivalent eligibility workers for each program. Then, the State applies these percentages to allocate the other local labor costs.
- Finally, some States use the distribution of eligibility worker costs and nonlabor costs charged directly to specific programs to determine percentages for each program. These percentages are then used to allocate the rest of the local labor cost (and possibly some shared nonlabor costs) in proportion to the cost already allocated. Depending on the State, the distribution of eligibility worker costs may be based on RMTS, personnel activity reports, effort certifications, or some combination of these methods.

Allocation of local labor costs is sometimes a multi-stage process. In the first stage, compensation for general managers and their support staff is allocated to local office divisions (e.g., social services and income maintenance) in proportion to the number of staff in each division. In the second stage, the total compensation for each division, including the allocated general management and support, is allocated among the programs served by the division in proportion to the percentage of time for eligibility workers and other workers who report time by program.

Local Nonlabor Costs

In principle, the nonlabor costs of operating local offices include all of the resources used by local personnel: supplies, facilities, equipment, telecommunications, data processing systems, postage and delivery, and other contracted services. In practice, States vary with regard to which of these resources are treated as local agency costs and which are part of some other pool of costs. In county-administered States, such as North Carolina, county departments are responsible for all of these costs, except for statewide data processing systems and associated networks. Counties may have their own data processing expenses. For example, some counties in North Carolina have automated systems that supplement the capabilities of the statewide client information system for the FSP. Where the FSP is State-administered, some or most goods and services for local offices may be purchased centrally and treated as a State-level cost assigned to the income maintenance division or a general administrative division.

The approaches to allocating local nonlabor costs are similar to those for allocating local labor costs other than compensation for eligibility workers and other personnel with direct client contact. Some local nonlabor costs are charged directly to a program. Shared costs are allocated in proportion to the RMTS time percentages, total staff time, or total costs charged on the basis of time use or direct

charges. A step-down process may be used where nonlabor costs such as rent and utilities are first allocated among divisions within local offices (based on FTEs or some other factor), then among programs within divisions.

State Costs

State agencies typically operate data processing and telecommunications systems to support eligibility determination, case maintenance, and other program functions. In addition, State agencies operate or contract for client services not provided by local offices, including benefit issuance, nutrition education, and employment and training. Finally, State agencies disseminate policy, provide training, and perform oversight functions (including quality control and management evaluation). As with local costs, cost allocation methods include direct charges, allocation based on usage, and allocation based on other costs.

Data Processing and Telecommunications

This category includes a variety of costs associated with client information systems, other management information and accounting systems, computer networks, and voice communications. The principal types of costs include: State technical personnel, contractors and service providers, equipment, software, and facilities. (Facility costs include rent or depreciation, utilities, cleaning, and maintenance of building systems.) These resources are shared among income maintenance programs and often with other programs within the same department. In some States, there is a central information technology department that operates a statewide computer center, data network, or both, serving most or all State agencies.

A variety of methods are used to charge data processing and telecommunications costs to the FSP. State personnel and contractors working on development and maintenance of computer applications and databases typically maintain activity reports (timesheets), with time tracked by project and a specified percentage of costs for each project allocated to one or more programs. The allocation percentage may be based on an indicator of usage or caseload, or based on a determination of how much of the project benefits each program (e.g., number of lines of program code). Computer system usage may be tracked at the program/program combination level, so that the operating costs for the system can be allocated in proportion to usage, or so that previously established charges can be assessed for each unit of usage. These operating costs may be "all-in" (inclusive of all expenses to operate the facility) or a subset of expenses. Alternatively, a pool of computer system costs for income maintenance programs (possibly including telecommunications network costs) may be allocated in proportion to the RMTS percentages for local personnel. Finally, percentages of costs allocated by other means may be used to allocate data processing and telecommunications costs.

Client Services

States frequently contract out three types of FSP client services: EBT, nutrition education, and E&T. EBT is almost universally provided by contractors on a fee-for-service basis. No cost allocation issues are raised. The contractor bills separately for services to the FSP and, where applicable, for other programs (as in the case of EBT, which also delivers cash benefits in some States). Nutrition education (FSNE) and E&T are often contracted out to other State or county agencies, and these services also are directly charged to the FSP. The State or county agency providing FSNE must,

however, use cost allocation methods that comply with Circular A-87 in determining their claims for reimbursement from the State Food Stamp Agency.

In addition, some States operate call centers or other centralized operations to supplement or replace services otherwise provided at the local level. These centers may be simply information and referral services, or they may perform certification functions such as change reporting or recertification. Methods for allocating the costs for call centers and other centralized client services include call tracking by program, RMTS, use of local RMTS percentages, and allocation based on percentages of costs allocated by other means.

Policy, Program Oversight, and Statewide Administration

Other State costs include FSP-specific activities, joint income maintenance administration, and general administration within and outside the State agency. FSP-specific activities, such as policy and training, may be directly charged. Some joint income maintenance administrative activities may be charged on the basis of activity counts for the FSP and other programs; this method may be used for quality control reviews (done for FSP and Medicaid), fair hearings, and fraud investigations. Alternatively, State personnel maintain activity reports as the basis for allocating their time. The distribution of local staff time or costs may be used to allocate shared State administrative costs for which personnel activity reports are not feasible. Cost allocation plans may have multi-step processes for allocating general State agency administrative costs (management, personnel, accounting, etc.) and the agency's share of statewide administrative costs. As at the local level, such costs may be allocated among divisions by FTEs or another equitable basis, and then within divisions by program based on available allocation factors (percentage of time or costs, etc.).

Reporting of Food Stamp Administrative Expenses to FNS

State Agencies submit quarterly and annual reports of FSP administrative expenses to FNS on the SF-269 report. The report is organized in columns representing specific program functions, such as certification, benefit issuance, and automated data processing (ADP). For each column, the State report identifies Federal and non-Federal shares of outlays. (The SF-269 form is shown at the end of this appendix.)

States use a combination of methods to determine the portion of FSP administrative expenses that they report in each functional category on the SF-269. It appears that most types of expenses are grouped in cost centers or pools that are associated with a single FSP function. For example, separate cost pools can be defined for the units that perform quality control reviews, fraud investigations, fair hearings, and management evaluations. Some cost centers or pools serve more than one FSP function, so additional data are needed to separate the costs by function. Eligibility workers sometimes perform both certification and employment and training (E&T) functions; States use RMTS or personnel activity reports to track these activities separately for cost reporting. Similarly, programmers may work on both ADP system maintenance (an operational expense) and development of a new ADP system. The State has to have a mechanism, such as personnel activity reports, to allocate time between ADP operations and development, because only time on approved projects can be charged to the ADP development category. Finally, some overhead-type expenses (e.g., a portion of the State Agency's senior management costs) are allocated among organizational units and, as a result, spread over several functions. The supporting documentation for the SF-269 documents how the costs for each function are computed and what cost centers or pools are included.

The Federal share (also known as Federal Financial Participation, or FFP) is set by law at 50 percent of reimbursable expenses, with some exceptions. States receive a base grant of 100 percent Federal funds for E&T; additional expenses are reimbursed at 50 percent. Under the Quality Control (QC) sanctions rules, State Agencies are allowed to "reinvest" their own funds in FSP improvements, rather than pay sanctions for excessive error rates. Reinvested funds are reported separately from regular expenditures, and FNS does not match these expenditures.[92] Prior to 1994, FNS provided enhanced funding for several categories of expenditures, with the Federal share between 63 and 100 percent.[93]

Starting in FY1999, the Federal share of certification costs has been reduced to offset the FSP share of common costs included in each State's TANF grant, as required by the Agricultural Research, Extension, and Education Reform Act of 1998 (P.L. 105-185). At the time of this legislation, there was concern that States would shift costs from their fixed TANF grants to the FSP, which has open-ended Federal matching funds for administration (Carmody and Dean, 1998). Under the law, the Department of Health and Human Services (HHS) was required to analyze the allocation of shared costs between the FSP and Aid to Families with Dependent Children (AFDC, the predecessor to TANF) during the baseline period used to set levels for States' TANF grants. The law required FNS to withhold a portion of Federal reimbursements for FSP certification costs to offset FSP-related costs that had been included in State AFDC administrative costs and therefore were included in State TANF grants that were based on the AFDC costs. HHS determined that some States had substantial amounts of these former AFDC costs that were attributable to joint certification of AFDC/FSP cases, while others had little or no such costs (Goolsby, 2004).

States also report Federal and non-Federal shares of unliquidated obligations for each function on the SF-269. Unliquidated obligations represent commitments of funds that have not been formally expended (i.e., liquidated). The liquidation of obligations is part of the process of finalizing expenditures for a fiscal year. States are allowed to claim additional Federal reimbursement from obligated funds for up to two years after the end of a fiscal year. Thus, Federal expenditures for a fiscal year are not final until at least two years later, and may be revised even later on the basis of a State audit or a Federal review of expenditures.

The SF-269 form and the definitions of the reporting categories from FNS instructions appear on the following pages.

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[92] Sanctions and bonuses based on QC error rates are not reported as part of SAE. Prior to implementation of the 2002 Farm Bill, States with payment error rates below 5.9 percent received enhanced funding. Under the QC reforms of the 2002 Farm Bill, FNS awards bonuses of $48 million per year on the basis of high or improved performance in payment error rates, timeliness, and the Program Access Index.

[93] ADP development was reimbursed at 75 percent through FY1991, then at 63 percent through March 1994. Systematic Alien Verification of Eligibility system costs were reimbursed at 100 percent through March 1994. Fraud control costs were reimbursed at 75 percent through March 1994. Expenses for administering the FSP on Indian Reservations are currently reimbursed at 75 percent.

FORM APPROVED OMB NO. 0348-0039

FINANCIAL STATUS REPORT

1. FEDERAL AGENCY & ORGANIZATIONAL ELEMENT TO WHICH REPORT IS SUBMITTED	FEDERAL GRANT OR OTHER NUMBER	2a. FISCAL YEAR
FOOD AND NUTRITION SERVICE, USDA	**Letter of Credit No. 12-35-**	

3. RECIPIENT ORGANIZATION (Name and complete address, including ZIP code. Also enter assigned State code.)	4. UNIVERSAL IDENTIFIER NUMBER	5. RECIPIENT ACCOUNT NUMBER OR IDENTIFYING NUMBER	6. FINAL REPORT	7. BASIS
				___CASH ___ ACCRUAL
	8. PROJECT/GRANT PERIOD		**9. PERIOD COVERED BY THIS REPORT**	

10. STATUS OF FUNDS

FOOD STAMP PROGRAM

PROGRAMS/FUNCTIONS/ACTIVITIES	1 CERTIFICATION	2 COUPON ISSUANCE	3 PERFORMANCE QUAL. CNTL.	4 REPORTING MGT.EVAL.	5 50% FUNDING FRAUD CNTL.	6 75% FUNDING FRAUD CNTL.	7 ADP OPER	8 FAIR HEARINGS	9 OTHER ACTIVITIES	10 TOTAL
a. Net outlays previously reported										
b. Total outlays this report period										
c. Less: Program Income credits										
d. Net outlays this report period *(Line b minus line c)*										
e. Net outlays to date *(Line a plus line d)*										
f. Less: Non-Federal share of outlays										
g. Total Federal share of outlays *(Line e minus line f)*										
h. Total unliquidated obligations										
i. Less: Non-Federal share of unliquidated obligations shown on line h										
j. Federal share of unliquidated obligations										
k. Total Federal share of outlays and unliquidated obligations										
l. Total cumulative amount of Federal funds authorized										
m. Unobligated balance of Federal funds										

11. INDIRECT EXPENSE	a. TYPE OF RATE ___PROVISIONAL ___ PREDETERMINED ___ FINAL ___ FIXED			
	b. RATE	c. BASE	d. TOTAL AMOUNT	e. FEDERAL SHARE

12. REMARKS: Attach any explanation deemed necessary or information required by Federal sponsoring agency in compliance with governing legislation.

13. CERTIFICATION

I certify to the best of my knowledge and belief that this report is correct and complete and that all outlays and unliquidated obligations are for the purposes set forth in the award documents.

SIGNATURE OF AUTHORIZED CERTIFYING OFFICIAL	DATE REPORT SUBMITTED

STAMP DATE	LAST UPDATED BY	LAST UPDATED ON	NAME	TITLE	TELEPHONE NO. AREA CODE	NUMBER
						-

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FINANCIAL STATUS REPORT

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				___CASH ___ ACCRUAL

8. PROJECT/GRANT PERIOD	9. PERIOD COVERED BY THIS REPORT

10. STATUS OF FUNDS

FOOD STAMP PROGRAM

PROGRAMS/FUNCTIONS/ACTIVITIES	11 E&T 100% GRANT	12 E&T 50% GRANT	13 E&T DEPENDENT CARE	14 E&T TRANS. & OTHER	15 OPTIONAL WORKFARE	16 OUTREACH	17 NUTRITION EDUCATION	18 REINVESTMENT	19 SAVE	20 PAGE 2 SUBTOTAL
a. Net outlays previously reported										
b. Total outlays this report period										
c. Less: Program Income credits										
d. Net outlays this report period *(Line b minus line c)*										
e. Net outlays to date *(Line a plus line d)*										
f. Less: Non-Federal share of outlays										
g. Total Federal share of outlays *(Line e minus line f)*										
h. Total unliquidated obligations										
i. Less: Non-Federal share of unliquidated obligations shown on line h										
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k. Total Federal share of outlays and unliquidated obligations										
l. Total cumulative amount of Federal funds authorized										
m. Unobligated balance of Federal funds										

11. INDIRECT EXPENSE	a. TYPE OF RATE ___PROVISIONAL ___ PREDETERMINED ___ FINAL ___ FIXED			
	b. RATE	c. BASE	d. TOTAL AMOUNT	e. FEDERAL SHARE

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FINANCIAL STATUS REPORT

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	8. PROJECT/GRANT PERIOD	**9. PERIOD COVERED BY THIS REPORT**	

10. STATUS OF FUNDS — FOOD STAMP PROGRAM

PROGRAMS/FUNCTIONS/ACTIVITIES	21 50% FUNDING ADP DEV.	22 63% FUNDING ADP DEV.	23 75% FUNDING ADP DEV.	24 EBT ISSUANCE	25 ISSUANCE INDIRECT	26 EBT STARTUP	27 UNSPECIFIED PORTION OF OTHER	28 E&T ABAWD GRANT	29	30 PAGE 3 SUBTOTAL
a. Net outlays previously reported										
b. Total outlays this report period										
c. Less: Program Income credits										
d. Net outlays this report period *(Line b minus line c)*										
e. Net outlays to date *(Line a plus line d)*										
f. Less: Non-Federal share of outlays										
g. Total Federal share of outlays *(Line e minus line f)*										
h. Total unliquidated obligations										
i. Less: Non-Federal share of unliquidated obligations shown on line h										
j. Federal share of unliquidated obligations										
k. Total Federal share of outlays and unliquidated obligations										
l. Total cumulative amount of Federal funds authorized										
m. Unobligated balance of Federal funds										

11. INDIRECT EXPENSE	a. TYPE OF RATE ___PROVISIONAL ___ PREDETERMINED ___ FINAL ___ FIXED			
	b. RATE	c. BASE	d. TOTAL AMOUNT	e. FEDERAL SHARE

12. REMARKS: Attach any explanation deemed necessary or information required by Federal sponsoring agency in compliance with governing legislation.

13. CERTIFICATION

I certify to the best of my knowledge and belief that this report is correct and complete and that all outlays and unliquidated obligations are for the purposes set forth in the award documents.

SIGNATURE OF AUTHORIZED CERTIFYING OFFICIAL	DATE REPORT SUBMITTED

NAME	TITLE	TELEPHONE NO. AREA CODE	NUMBER
			-

STAMP DATE	LAST UPDATED BY	LAST UPDATED ON

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FINANCIAL STATUS REPORT

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				___CASH ___ ACCRUAL

8. PROJECT/GRANT PERIOD	9. PERIOD COVERED BY THIS REPORT

10. STATUS OF FUNDS

FOOD STAMP PROGRAM

PROGRAMS/FUNCTIONS/ACTIVITIES	31 BENEFIT DATA	32 ENHANCED FUND-QC
a. Net outlays previously reported		
b. Total outlays this report period		
c. Less: Program Income credits		
d. Net outlays this report period *(Line b minus line c)*		
e. Net outlays to date *(Line a plus line d)*		
f. Less: Non-Federal share of outlays		
g. Total Federal share of outlays *(Line e minus line f)*		
h. Total unliquidated obligations		
i. Less: Non-Federal share of unliquidated obligations shown on line h		
j. Federal share of unliquidated obligations		
k. Total Federal share of outlays and unliquidated obligations		
l. Total cumulative amount of Federal funds authorized		
m. Unobligated balance of Federal funds		

11. INDIRECT EXPENSE	a. TYPE OF RATE ___PROVISIONAL ___ PREDETERMINED ___ FINAL ___ FIXED			
	b. RATE	c. BASE	d. TOTAL AMOUNT	e. FEDERAL SHARE

12. REMARKS: Attach any explanation deemed necessary or information required by Federal sponsoring agency in compliance with governing legislation.

13. CERTIFICATION

I certify to the best of my knowledge and belief that this report is correct and complete and that all outlays and unliquidated obligations are for the purposes set forth in the award documents.

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Definition of FNS-269 Expenditure Categories

[Adapted from FNS instructions for FNS-366A, Program And Budget Summary Statement (Food Stamp Program) Part A – Budget Projection]

1. CERTIFICATION – Salaries and fringe benefits for full or part-time certification and multifunctional workers for their time actually engaged in certification of households. Includes salaries paid during travel status, estimated travel expenses, supervisory, clerical, or other support costs, including related salaries and benefits.
2. COUPON ISSUANCE – Salaries and fringe benefits for full or part-time issuance and multifunctional workers for their time actually engaged in coupon issuance transactions. Include salaries for travel time spent traveling from work site to other issuance locations, travel expenses, fees paid or accrued under contracts which use a transaction rate, supervisory, clerical, or other support worker costs, including salaries and benefits. Includes the direct costs for coupon and non-EBT issuance activities. Includes any indirect costs charged as part of a public assistance cost allocation plan related to coupon issuance. Indirect costs assigned by cost rates are reported in "Issuance Indirect" (Row 25).
3. PERFORMANCE REPORTING – QUALITY CONTROL: Salaries and fringe benefits for full or part-time Quality Control and multifunctional workers for their time actually engaged in Quality Control activities. Includes salaries estimated for travel, estimated travel expenses, supervisory, clerical, or other support worker costs, including salaries and benefits.
4. PERFORMANCE REPORTING – MANAGEMENT EVALUATION: Salaries and fringe benefits for full or part-time Management Evaluation and multifunctional workers for their time actually engaged in Management Evaluation activities. Includes salaries for travel, travel expense, supervisory, clerical, or other support worker costs, including salaries and benefits.
5. 50% FUNDING – FRAUD CONTROL: All expenses for payroll, equipment, space, and other support costs of qualified employees that are engaged specifically in the investigation and prosecution of Food Stamp Fraud Activity. Includes only costs which are reimbursed at the 50 percent Federal Financial Participation rate.
6. 75% FUNDING – FRAUD CONTROL: All expenses for payroll, equipment, space, and other support costs of qualified employees that are engaged specifically in the investigation and prosecution of Food Stamp Fraud Activity. Costs for fraud hearings are also included, as well as costs generated through formal agreements with agencies other than the State agency. Training costs specifically related to this job function are reported in this column. Includes only costs which are reimbursed at the 75 percent Federal Financial Participation rate.
7. ADP OPERATIONS: Includes funding activity for operational costs of computer systems which are charged under an approved cost allocation plan. Also includes any special applicable indirect costs.
8. FAIR HEARINGS: Salaries and fringe benefits for full or part-time Fair Hearing or multifunctional workers for their time actually engaged in Fair Hearing activities. Includes salaries for travel time, estimated travel expenses, supervisory, clerical, or other support costs.
9. OTHER ACTIVITIES (20 + 30): Includes funding of costs for all other activities. Includes costs for the E&T program, workfare, SAVE, ADP Development costs at the 50%, 63% or 75% rates, and outreach costs (items 11-30 on Pages 2 and 3 of the form).
10. TOTAL: for items 1-9.
11. EMPLOYMENT AND TRAINING (E&T) PROGRAM GRANT ALLOCATION (100% GRANT): The amount of 100% Federal E&T funding. Does not include line 28: E&T ABAWD GRANT or participant reimbursements.
12. E&T ADMINISTRATIVE COSTS (50% MATCHING): The amount in excess of the E&T Program grant allocation (line 11) and, if applicable, the additional E&T grant allocation for "pledge" States (line 28), needed to operate the E&T program in accordance with FNS-approved State E&T plan.

Definition of FNS-269 Expenditure Categories
(continued)

13. E&T PARTICIPANT REIMBURSEMENT – DEPENDENT CARE: Funds to reimburse E&T participants for the costs of dependent care incurred as a result of E&T participation.
14. E&T PARTICIPANT REIMBURSEMENT – TRANSPORTATION AND OTHER COSTS: Funds to reimburse E&T participants for the costs of transportation and other reasonable and necessary costs (other than dependent care) incurred as a result of E&T participation.
15. OPTIONAL WORKFARE: Operational costs for workfare programs operated under Section 20 of the Food Stamp Act. Includes the of reimbursement for workfare-related expenses such as transportation, child care, or the cost for personal safety items or equipment required for performance of work if these items are also purchased by regular employees. (Does not include enhanced reimbursement which is reported on the SF-270.).
16. OUTREACH: Includes outreach costs for Program informational activities which are included in the State's outreach plan.
17. NUTRITION EDUCATION: Includes costs for nutrition education activities which are included in the State's nutrition education plan.
18. REINVESTMENT: [State-only cost under agreement to spend funds on program improvement in lieu of sanctions for excess error rates.]
19. SYSTEMATIC ALIEN VERIFICATION FOR ENTITLEMENTS (SAVE): The administrative costs of planning, implementing and operating a SAVE system.
20. PAGE 2 SUBTOTAL: Total of items 11 through 19.
21. 50% FUNDING – ADP DEVELOPMENT: Computer system development costs which are reimbursed at the Federal Financial Participation rate of 50%.
22. 63% FUNDING – ADP DEVELOPMENT: Computer system development costs which are reimbursed at the Federal Financial Participation rate of 63%.
23. 75% FUNDING – ADP DEVELOPMENT: Computer system development costs which are reimbursed at the Federal Financial Participation rate of 75%.
24. EBT ISSUANCE: Salaries and fringe benefits for full or part time workers engaged in Electronic Benefit Transfer (EBT) issuance. Costs to be paid for EBT issuance under contracts. Direct costs and indirect costs charged through a public assistance cost allocation plan.
25. ISSUANCE INDIRECT: Indirect costs for coupon and EBT issuance that are approved for cost charging through an indirect cost rate.
26. EBT STARTUP: EBT system startup costs incurred after the implementation APD is approved and prior to issuance of benefits by the EBT system. Costs approved for planning an EBT system are included in the appropriate ADP Development category. Startup costs are design, development, and implementation costs excluding system planning approved by FNS. Operational costs, including equipment costs, are included in "EBT issuance".
27. UNSPECIFIED PORTION OF OTHER: Portion of item 9 "Other Activities" not specifically identified and recorded in items 11-26 and 28. Includes Indian Administration costs, Wage Matching, etc.
28. E&T ABAWD GRANT: If applicable, the amount of the unmatched additional Federal grant allocated under section 16(h)(1)(E) of the Food Stamp Act needed to provide qualifying education/training or workfare opportunities to every able-bodied adult without dependents (ABAWD) applicant and recipient subject to the 3-month food stamp time limit.
30. PAGE 3 SUBTOTAL: Enter the total of items 21 through 28

Appendix C
Topic Guides for Federal Agency Interviews

Feasibility of Assessing Causes of State Variation in FSP Administrative Costs: Topics for Discussion with FNS Experts

A. Quality of State Administrative Expense Reporting to FNS

1. In the view of FNS experts, what are the main concerns about the comparability of reported SAE for the FSP among States and over time?

2. What insights and information does FNS have about the extent of errors or inconsistencies in the reporting of State Administrative Expenses (SAE) for the Food Stamp Program? (Inconsistencies in reporting may be differences among States or within States over time.) Possible types of errors or inconsistencies include:
   a. expenses charged to the wrong program
   b. changes or corrections applied to the wrong year
   c. unallowable costs charged
   d. computation errors
   e. delays in liquidating obligations
   f. differences in definition and measurement of expenses for specific program functions (certification, issuance, etc.)
   g. differences in the allocation of direct costs among programs, such as caseworker time and data processing
   h. differences in the allocation of indirect costs at the local and State levels (supervision, support staff, facilities, communications, utilities, etc.).

B. Potential Alternate Sources of Data on Food Stamp SAE

1. We have suggested several types of data that States may be able to provide for use in a study of food stamp SAE. For the following types of data, we would like to know FNS experts' views on the following questions:

   What is the likelihood that data would be available at a reasonable cost from some or all States?
   Is there any experience with such data collection?
   What might be the key limitations or challenges of collecting and using the data to understand variations in SAE?

   a. State-level data on the composition of SAE: local offices (aggregate) versus State headquarters, direct versus indirect, breakdown between labor and other objects of expenditure.

   b. Time-study data collected for the allocation of the costs of multi-program workers between FSP and other programs (TANF, Medicaid, etc.)

   c. Client information system data on transactions that create or change case records (initial applications, interim changes, periodic reports, recertification, closure, etc.)

   d. Local office-level data on staffing, workload, or expenditures.

C. FSP Administrative Budgets for States

1. What information do States submit on their administrative budgets the FSP? What revisions to this information occur, if any?

2. What information does FNS retain on State FSP administrative budgets? Can an electronic file be produced?

3. What might be the challenges of analyzing the variation in State FSP administrative budgets and their relationship to actual SAE?

D. Possible Explanations of Variation in Food Stamp SAE Between States

1. What are the most plausible explanations for why food stamp SAE varies so much between States?

2. What information is missing that might help select among these explanations?

Feasibility of Explaining Interstate Differences in Food Stamp Program Administrative Costs: Topics for Discussion with Department of Health and Human Services Experts

A. Quality of State Administrative Expense Reporting to HHS

1. What are the main factors affecting the comparability of reported administrative expenditures among States and over time?

2. What insights and information does HHS have about the extent of errors or inconsistencies in the reporting of State administrative expenditures for the TANF program and other public assistance programs administered by the FS/TANF agency? (Inconsistencies in reporting may be differences among States or within States over time.) Possible types of errors or inconsistencies include:
   a. unallowable costs
   b. differences in the allocation of shared direct costs among programs, such as caseworker time and data processing
   c. differences in the allocation of indirect costs at the local and State levels (supervision, support staff, facilities, communications, utilities, etc.).

B. Potential Alternate Sources of Data on SAE

1. We have suggested the following types of data that States may be able to provide for use in a study of food stamp SAE.

   a. Time-study data collected for the allocation of the costs of multi-program workers between FSP and other programs (TANF, Medicaid, etc.)

   b. Client information system data on transactions that create or change case records (initial applications, interim changes, periodic reports, recertification, closure, etc.)

   c. Local office-level data on staffing, pay rates, workload, or expenditures.

   d. Local office characteristics (location, programs with joint eligibility determination, other local options)

   For these data, we would like to know HHS experts' views on the following questions:
   - Is there documentation of these data available from HHS?
   - Do States submit any of these data to HHS?
   - What is the likelihood that data would be available at a reasonable cost from some or all States?
   - What is known about the quality of these data and the steps taken by States to assure quality?
   - Is there any experience with collecting these data for studies of administrative costs?
   - What might be the key limitations or challenges of collecting and using the data to understand variations in SAE?

C. State Administrative Budgets for Public Assistance Programs

1. What information, if any, do States submit to HHS on their administrative budgets for public assistance programs? What revisions to this information occur, if any?

2. What information does HHS retain on State administrative budgets for public assistance programs? Can an electronic file be produced?

3. What might be the challenges of analyzing the variation in State administrative budgets for public assistance programs and their relationship to actual expenditures?

D. Possible Explanations of Variation in Administrative Spending Between States

1. From your experience, what are the most plausible explanations for why administrative spending for public assistance programs varies between States?

2. What information might help select among these explanations?

Feasibility of Explaining Interstate Differences in Food Stamp Program Administrative Costs: Topics for Regional Office Discussions

A. Quality of State Administrative Expense Reporting to FNS

1. What kinds or errors or inconsistencies occur in the reporting of State Administrative Expenses (SAE) for the Food Stamp Program? (Inconsistencies in reporting may be differences among States or within a State over time.) Possible types of errors or inconsistencies include:
    a. expenses charged to the wrong program
    b. differences in the allocation of direct costs among programs, such as caseworker time and data processing
    c. differences in the allocation of indirect costs at the local and State levels (supervision, support staff, facilities, communications, utilities, etc.).

B. Questions about States Selected for Interviews

1. The purpose of the State interviews in this study is to collect information on the feasibility of possible studies of State administrative expenses. Are there reasons that the State selected in this region would not be a good candidate for these interviews?
    a. Probes: new FSP director, audit issues with SAE, budget disputes with FNS, problems with ADP operations or development

2. Is this State or some other State in this region likely to have particularly good analyses or data to support analyses of any of the following types of information?
    a. Local office FSP staffing and staff/client ratios (planned or actual)
    b. Average pay rates, years of service, and qualifications for local office FSP workers
    c. Average time to complete major FSP certification tasks (screening, initial certification, periodic reports, other interim actions, recertification, closings)—overall, by case type
    d. Frequency of principal FSP certification tasks (overall, by case type)
    e. Composition of FSP SAE:
        i. local offices (aggregate) versus State FSP agency vs. other State agencies (shared services)
        ii. breakdown between direct labor, other direct costs, and indirect costs
        iii. breakdown of indirect costs by cost pool
    f. Use of specialized vs. generalist workers, screeners, etc.
    g. FSP expenses for individual local offices or counties/cities

h. Error rates, timeliness, or other performance indicators for individual local offices or counties/cities

3. Who would be the best contacts in the selected State to discuss the availability and quality of these data?

C. Possible Explanations of Variation in Food Stamp SAE Between States

1. From your experience, what are the most plausible explanations for why food stamp SAE varies so much between States?

2. What information might help select among these explanations?

Appendix D
State Interview Topic Guide

Feasibility of Explaining Interstate Differences in Food Stamp Program Administrative Costs: Topics for State Interviews

A. Overview of Food Stamp Program (FSP) Administration

Note: The responses to the questions below may vary among local offices. If so, we would like to discuss this variation.

1. What programs are administered by local Food Stamp offices (other than the FSP) in your State? (Examples: TANF, Medicaid, Child Support Enforcement, Adoption, Foster Care, Child Welfare)
2. What kinds of local office employees **conduct interviews for FSP certification and recertification**? (We are looking for job titles like "eligibility technician".)
    a. Are they FSP-only, multi-program (generic), or a mix of these types?
        1. What other programs do multi-program certification workers serve?
    b. What other FSP tasks do these employees perform?
        1. Other FSP certification (interim changes, reviewing computer match results, etc.)?
        2. Other FSP functions (fraud control, employment and training, quality control, fair hearings, outreach, and "other") ?
3. What other kinds of local office employees do FSP certification-related tasks involving direct interaction with clients? (Example: reception or screening workers.)
    a. What FSP certification tasks do these employees perform?
    b. What other programs do these employees work on?
    c. Do any of these local office employees work on FSP functions other than certification? (Other FSP functions include: fraud control, employment and training, quality control, fair hearings, outreach, and "other".)
4. What other kinds of local office employees do FSP certification-related tasks that do not involve interaction with clients (Examples: filing, data entry, processing change reports)
    a. What FSP certification tasks do these employees perform?
    b. What other programs do these employees work on?
    c. Do any of these local office employees work on FSP functions other than certification? (Other FSP functions include: fraud control, employment and training, quality control, fair hearings, outreach, and "other".)
5. What other kinds of local office employees work on FSP functions other than certification, such as fraud control, employment and training, quality control, fair hearings, outreach, and "other"?
    a. What are the other FSP functions done by these local office employees?
    b. For each of these functions:
        1. What kinds of employees perform the function?

2. What other programs do these employees work on?

6. Are any FSP certification tasks handled in regional or central offices of the State agency (such as call centers or change reporting centers)? If so,
   a. What client interactions are handled at these locations?
   b. What other ("back office") tasks are handled at these locations?
   c. Do the workers perform certification tasks for other programs?
   d. Do the workers perform non-certification tasks for the FSP? What are these other FSP tasks?
   e. Do the workers perform non-certification tasks for other programs? What are the other programs?
7. What FSP functions are contracted out, either to other State agencies or to private organizations (community-based organizations, other non-profit organizations, or for-profit companies)?
   a. What client interactions are handled through these contracts or cooperative agreements?
   b. What other ("back office") FSP tasks are through these contracts or cooperative agreements?
   c. Are similar tasks for other programs handled through these contracts or cooperative agreements? What are the other programs?
8. What programs share data processing resources with the FSP, such as servers or mainframe computers, operations and programming staff, and telecommunications networks?

B. Time Studies of Local Office Worker Costs for the Food Stamp Program

1. Does your State conduct a random-moment time study to measure and allocate the costs of local FSP certification workers? If so:
   a. How often are data collected?
   b. About how many local FSP certification workers are in the pool of workers that may be included in the time study?
   c. Are other local FSP workers included, such as supervisors or clerical support? If so, what types?
   d. Other than worker salaries, what types of costs are allocated with the time study (such as payroll taxes, fringe benefits, and training)?
   e. Approximately how many observations are collected each quarter?
   f. What is the average quarterly number of observations per county (or similar geographic unit of local FSP administration, such as district)?
   g. What training do workers receive on how to complete the study? May we see a copy of the materials?
2. Does the time study collect data on the type of FSP activity performed?
   a. What activities are identified (such as initial certification, periodic or change reporting, recertification, case closing etc.)?

b. May we see a summary report on the number of observations of each type of activity for a quarter or longer period?

3. What data are collected on the characteristics of the FSP clients who are served by the activities measured in the time study? Which of the following data are collected for individual activities?

    a. Whether the household was applying for or approved for public assistance

    b. Whether the household was applying for or approved for Medicaid

    c. Case number or recipient identifier

    d. Other case/recipient characteristics

    e. Worker identifier usable for linkage to database of workers (for example, so that time for an individual activity can be linked to the pay rate or classification of the worker)

4. What data on **individual time study observations** could be provided for a study of certification costs?

    a. Are the data from individual observations kept in electronic form?

    b. How long are the data on individual observations and summary data retained in electronic form?

    c. Is the database format compatible with off-the-shelf software?

    d. What documentation of the data is available? May we see a copy?

    e. If data are stored off-line, what is required to access the data?

    f. Are there any legal or policy reasons that might prevent a USDA contractor from using the data for research?

5. What method(s) are used to measure and allocate the costs of local FSP workers who are not included in a time study? (These may be clerical or other support staff, or supervisors. Possible methods might include: counts of activities, time standards, timesheets, caseload data, and percentages of hours or full-time equivalents measured in a time study.)
For each method, questions a-g will be discussed.

    a. What types of local FSP workers are included (caseworkers, clerical support, supervisors, etc.)?

    b. What data are collected, by whom, and how often?

    c. Other than worker salaries, what types of costs are allocated with the method (such as payroll taxes, fringe benefits, and training)?

    d. How many observations are collected quarterly, statewide and in the average county/district? Do these represent a sample or all activities?

    e. Are data collected on the type of FSP activity performed?

        1. What activities are identified (such as initial certification, periodic or change reporting, recertification, case closing etc.)?

        2. May we see a summary report on the number of observations of each type of activity for a quarter or longer period?

f. What data on individual workers' time could be provided for a study of certification costs? (Refer to B4 for follow-up questions)

6. What data on **local office FSP staffing and time use** could be provided for a study of certification costs? In particular, what existing sources for the following data could be tapped, **either as statewide summaries or for individual offices**? For the available data, what form are they in, how long are they retained, and are there any barriers to access for research?

    a. Local office FSP staffing and staff/client ratios (planned or actual)

    b. Average pay rates, years of service, and qualifications for local office FSP workers

    c. Average time to complete major FSP certification tasks (screening, initial certification, periodic reports, other interim actions, recertification, closings)—overall, by case type

    d. Frequency of major FSP certification tasks (overall, by case type)

    e. Other productivity measures, such as number of actions of specified types per worker per day

7. In the past 10 years, has your State made any changes to the processes for measuring and reporting of the costs of local FSP workers? If so, please describe.

8. What cautions would you suggest regarding the feasibility of using data on local FSP worker time and costs for comparing expenditures across States?

C. Measuring and Allocating Other FSP Costs

1. Other than local office workers, what are the largest cost centers or pools for FSP administration? (Examples of cost centers include data processing centers and oversight of local operations.) For each of these cost centers:

    a. What kinds of FSP administrative work does the cost center produce?

    b. What types of cost objects are included (salaries, employee benefits, supplies, purchased services, equipment depreciation/usage, facilities rent/usage, utilities, etc.)?

    c. How is the share of the cost center for the FSP determined?

    d. What are the challenges or problems of measuring and allocating the expenses in this cost center?

2. In the past 10 years, has your State made any changes to the processes for measuring and reporting of these cost centers costs of local FSP workers? If so, please describe.

3. What cautions would you suggest regarding the feasibility of using data on these cost center for comparing expenditures across States?

D. Options for Analyzing Certification-Related Costs

1. Has your agency analyzed differences in FSP certification costs, either among local offices or over time?
    a. What data sources were used?

    b. What were the findings?

c. Is a report available? May we see a copy?

2. In your State, what are the potential sources of data **from accounting systems** for analyzing variations in the direct and indirect costs of FSP certification? Possible approaches include:

   a. Breakdown of FSP certification costs between front-line workers, other local office staff, other local office costs, and allocated State-level costs

   b. Breakdown of FSP certification costs by local office, city, or county

   c. Breakdown of FSP "other" costs to determine how much is indirect cost of certification

   d. What resources and arrangements would be needed to collect these data? What would be the potential problems in collecting and analyzing the data?

3. Does your State have data on variations among local offices in options for organizing staff and client flow, such as use of specialized vs. generalist workers, screeners, etc?

   a. What data are available?

   b. In what form do the data exist?

   c. For what period are the data available?

   d. Are there any legal or policy reasons that might prevent a USDA contractor from using the data for research?

4. Does your agency have error rates, timeliness, or other FSP performance indicators for individual local offices or counties/cities?

   a. What indicators are collected?

   b. How are they used?

   c. In what form do the data exist?

   d. For what period are the data available?

   e. Are there any legal or policy reasons that might prevent a USDA contractor from using the data for research?

E. Relationship of Food Stamp Administrative Expenses to Budgets

1. How is the budget set for for local office FSP administration?

   a. Is there a specific item or set of items for local FSP administration? If not, what budget item includes local FSP administration (such as "income maintenance administration" or "local social services")?

   b. What are the roles of the State legislature, your department, and other State officials in determining the budget item(s) for local FSP administration?

   c. What is the time period covered by these budget items (fiscal year, biennium, etc.)?

   d. What factors are considered in setting the budget for these items? (Possible factors include caseload, policies, level of automation, and State finances.)

      i. Are standards for FSP caseloads or performance used in setting the budget? What are they? How are they set?

ii. Does the State establish a targeted level of service to FSP clients as part of the budget process (tied to funding)?

e. Does the budget change during the fiscal year? Under what circumstances?

f. How is the budget allocated among local offices?

2. How do State and local administrators manage spending against the budget for local office FSP administration?

   a. What happens when the FSP caseload rises?

   b. What happens when the FSP caseload falls?

   c. What happens when TANF or Medicaid caseloads change?

3. What data on budgets for/including local FSP administration could be provided for a study of certification costs?

   a. Would the statewide budget that includes local FSP administration be available?

   b. Would this budget information be available for areas within the State, such as counties?

   c. What data are available on the assumptions for these budgeted amounts?

   d. What form are the data in?

   e. How long are they retained?

   f. Are there any legal or policy reasons that might prevent a USDA contractor from using the data for research?

F. Possible Explanations of Variation in Food Stamp SAE Between States

1. From your experience, what are the most plausible explanations for why food stamp certification costs per case vary between States?

2. What are the factors that affect your State's automated data processing (ADP) costs per FSP household?

   a. How are ADP operating costs affected by system features? What are the key features that affect costs? (These features may include: integration with systems for TANF and/or Medicaid eligibility, support for on-line interviewing, rules-based prompts and error-checking, on-line access to external data systems (for matching), and data warehousing and reporting capabilities.)

   b. How has the cost of operating your State's ADP system for the FSP changed since it was implemented?

   c. Does your department use its own data center to host the ADP system for the FSP, or does it use a shared facility?

      i. Is the data center operated by State employees, a contractor, or a combination of the two?

      ii. When the current data center model was chosen, was there a cost comparison between alternatives? What were the key factors in this decision?

   d. What other factors have important impacts on ADP operating costs?

3. Has your agency analyzed the relationship between ADP costs and local worker costs? If so,
    a. What data sources were used?
    b. What were the findings?
    c. Is a report available for our use?
4. From your knowledge, in what ways is your State's ADP cost structure similar to and different from most States?
5. What other factors contribute to the variation in total FSP administrative expenses per case among States?

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