ADMINISTRATIVE EFFECTS OF MONTHLY REPORTING IN THE FOOD STAMP PROGRAM

by

Bonnie Randall Nutt-Powell

SUBMITTED IN PARTIAL FULFILLMENT
OF THE REQUIREMENTS OF THE
DEGREE OF

MASTER OF CITY PLANNING

at the

MASSACHUSETTS INSTITUTE OF TECHNOLOGY
June 1984

Signature of Author _____
Department of Urban Studies and Planning
18 May, 1984

Certified by _____
Leonard G. Buckle
Thesis Supervisor

Certified by _____
Suzann Thomas Buckle
Thesis Supervisor

Accepted by _____
Ralph A. Gakenheimer
Chair, Departmental Committee on Graduate Students

ADMINISTRATIVE EFFECTS OF MONTHLY REPORTING IN THE FOOD STAMP PROGRAM

by

Bonnie Randall Nutt-Powell

Submitted to the Department of Urban Studies and Planning on 18 May, 1984 in partial fulfillment of the requirements for the Degree of Master of City Planning.

ABSTRACT

A twelve-month monthly reporting demonstration randomly assigned food stamp clients to one of three treatment groups. Cases in the experimental and variant groups were required to submit monthly reports providing information on and verification of their circumstances. No home or office interviews were required. Cases in the conventional group were subject to the exacting requirements for AFDC/food stamp cases in Illinois, including semi-annual recertifications and interim reporting of changed circumstances within ten days. A much higher level of automation was used to maintain the experimental and variant cases, and their benefit determinations were based on a principle of retrospective accounting; that is, next month's benefit reflects last month's circumstances. Conventional system benefits were based on prospective accounting.

Results from this analysis indicate that total administrative costs increased by approximately 20 percent under monthly reporting. The increase was approximately $3.00 per case month, from $14.36 per case month for the conventional reporting group to $17.28 for the experimental group and $17.38 per case month in the variant group. These figures exclude development costs (for example, design of the monthly reporting program and software development) which amounted to about $2,000,000 for the Illinois demonstration. The administrative cost estimates include direct case maintenance costs (such as labor costs of local office staff, automated system costs, and postage) as well as all other local office costs (including intake), and all state and regional costs.

Thesis Supervisor: Dr. Leonard G. Buckle
Title: Associate Professor of Urban Studies and Planning

for Daddy

ACKNOWLEDGEMENTS

The data analyzed in this thesis were collected by Illinois Monthly Reporting Project staff who deserve special thanks. They include Steven Spence, Frank Kopel, Karen Sachse, and particularly David Gruenenfelder.

I am also indebted and grateful to:

Ted Wadsworth, Jeffry Powell, and Hedda Herzog, who coded and cleaned data and efficiently performed a variety of other necessary but wearisome support tasks;

Mari Morgen, who produced numerous drafts and coped with re-writes to the last possible moment;

Tom Willemain, who thought this document was possible but not probable;

Chris Hamilton, who provided technical support throughout the preparation of this analysis;

Tom Nutt-Powell, who provided emotional support and who paid the bills; and

My advisors, Len and Suzy Buckle, who got me through.

Finally, I am enormously grateful to Jean Wood. It is undeniably the case that without her help, confidence, and smart mouth, this thesis would never have been written.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF TABLES
(continued)

LIST OF EXHIBITS

LIST OF APPENDICES

CHAPTER ONE

INTRODUCTION AND OVERVIEW

This thesis is an analysis of the effects of monthly reporting on administrative costs in the Food Stamp Program in Illinois. Under a monthly reporting system, recipients are required to submit each month a report of income, household composition, and other information relevant to their eligibility and food stamp allotments. The administering agency distributes report forms, receives and processes information, answers clients' questions, and provides clients with notifications of actions taken on the basis of the monthly reports. The Illinois system was based on a principle of retrospective accounting, that is, benefits for a given period were determined on the basis of reported circumstances in a prior period. The system in Illinois allowed clients whose circumstances declined to apply for supplemental food stamp benefits for the period before their changed circumstances were reflected in their regular allotments.

The Food and Nutrition Service (FNS) of the U.S. Department of Agriculture, together with the Department of Health and Human Services (HHS), sponsored this project to test the impact of a monthly reporting system for persons receiving food stamps and Aid to Families with Dependent Children (AFDC). This project was conducted in two local welfare offices in Illinois.[1] The project included a highly automated system for processing the data contained in the monthly reports. The automated system determined eligibility and calculated benefits.

The national monthly reporting study focused on four major areas in which effects might be expected:[2] (1) changes in total food stamp case-

---

[1]The Illinois project was one of several in which a monthly reporting system was applied to AFDC cases. This was the only project, however, in which the monthly report determined both AFDC grants and food stamp allotments through a fully integrated, automated processing system.

[2]Abt Associates Inc., Cambridge, Massachusetts, is responsible for studying the effects of monthly reporting in the AFDC and Food Stamp Programs.

loads and benefit outlays; (2) changes in the accuracy (error rates) with which food stamps are provided; (3) changes in the costs of administering the Food Stamp Program; and (4) changes in the experiences of the people who receive food stamps. In addition to these research areas,[1] the study addressed two other issues: the interaction of parallel changes in the AFDC and Food Stamp Programs and the hypothesized effect of monthly reporting on non-public-assistance food stamp cases in Illinois.

The research presented in this thesis encompasses only the administrative cost findings of monthly reporting in the Food Stamp Program.

With the introduction of a monthly reporting system, work activities in a public assistance office are modified. Monthly reporting adds some new tasks while others are modified or eliminated. For example, under the conventional reporting system in Illinois, recertification of eligibility occurred semi-annually for AFDC/food stamp cases. Under monthly reporting, however, recertification interviews occurred once per year or were entirely eliminated. In addition, while the conventional system in Illinois utilized an automated client information system, the monthly reporting system involved a highly automated and sophisticated data processing system.[2] As a result of this highly automated system, workers' responsibilities were altered in that they no longer had to calculate budgets or benefit amounts.[3]

Estimating the net effect of these changes on the costs of administering the Food Stamp Program is the objective of this analysis. The research reported here is based on the application of a work-measurement methodology which provides information not only on overall costs but also on the sources of variation within total costs when different administrative procedures are applied.

---

[1]These four areas are also being investigated in the AFDC research.

[2]The Illinois Monthly Reporting System (MRS) was one of the most sophisticated automation efforts applied to monthly reporting. The systems developed and operated for monthly reporting demonstrations in Massachusetts and Michigan were much less complex and did not include on-line budgeting capabilities or on-line eligibility determination.

[3]Further details of the changes introduced with monthly reporting are described in Chapter Two.

In Illinois, monthly reporting was applied only to the jointly administered AFDC/food stamp caseload.[1] The system began operations in August 1981, with October 1981 as the first month in which payments were made on the basis of monthly reports. The experimental period totaled twelve months, ending in September 1982.

This analysis of administrative effects in the Food Stamp Program employs data collected at Southeast District Office (SEDO) in Chicago.[2] SEDO is a large, inner-city public assistance office with an AFDC/food stamp caseload of about 7,000. Within the office, clients and caseworkers were randomly assigned to three treatment groups: one group continued to operate under the conventional system; the second group reported circumstances via a monthly reporting system and also had an in-office annual eligibility interview (the variant group); the third group operated under a monthly reporting system with no annual review of circumstances (the experimental group).

Data were collected at Southeast District Office during three observation periods in 1982: 11 January to 5 February; 30 April to 28 May; and 15 July to 13 August.

Summary of Findings

The total administrative cost estimates for monthly reporting are higher than estimated costs of the conventional reporting system. Prior to a discussion of these findings, it is important to understand the costs which are being examined. Exhibit 1-1 displays the major cost components of the Illinois Food Stamp Program and indicates the elements of administrative costs that comprise the aggregate estimate. For illustrative purposes, data included in Exhibit 1-1 refer to the experimental treatment group.

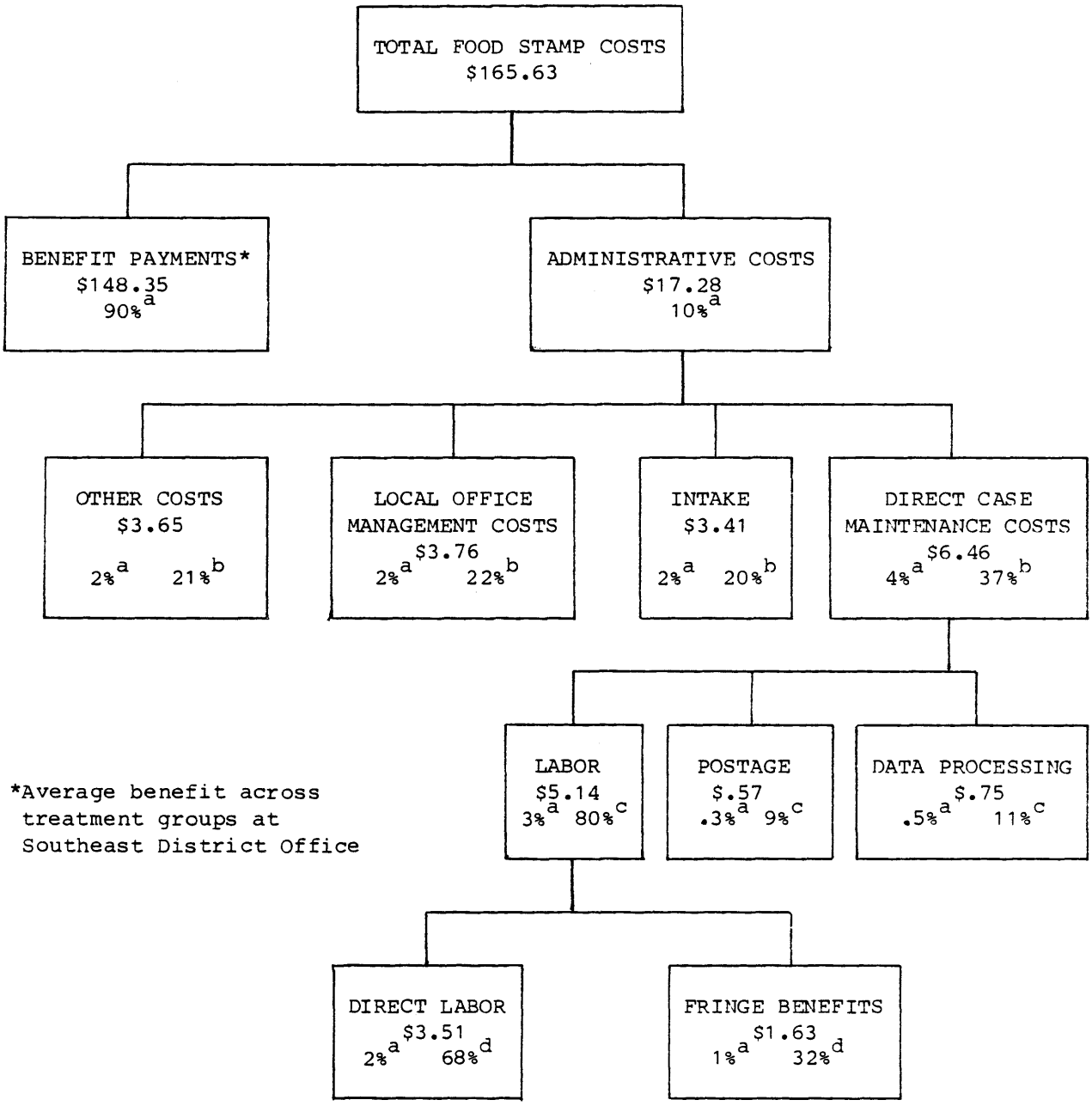
---

[1] Food stamp cases not also receiving AFDC were not included in the experiment.

[2] The demonstration also occurred in the Peoria welfare office; however, this analysis examined data from SEDO only. Two sets of administrative costs estimates are reported here. One set of estimates is based on observed data; the second set adjusts for observed system problems and simulates expected costs after such adjustments are made.

Exhibit 1-1

FOOD STAMP PROGRAM COSTS PER CASE MONTH IN ILLINOIS
(EXPERIMENTAL TREATMENT GROUP)



*Average benefit across treatment groups at Southeast District Office

NOTE: Food Stamp Program costs exclude issuance costs.

[a]Percent of total food stamp costs.

[b]Percent of $17.28 in administrative costs.

[c]Percent of $6.46 in direct case maintenance costs.

[d]Percent of $5.14 in labor costs.

Total Food Stamp Program costs include benefits paid to clients as well as administrative costs. Benefit payments are not a part of this analysis, which focuses on administrative costs and the effect of the introduction of monthly reporting on those costs. As can be computed from the figures in the exhibit, administrative costs comprise around 10 percent of the total costs of the Food Stamp Program. Monthly reporting increases administrative costs by about $3.00 a case month.[1] Administrative costs for each treatment group and differences between treatment groups are displayed in Table 1-1. Experimental treatment group costs are $2.92 (20 percent) higher than conventional group costs. Variant group costs are $3.02 or 21 percent higher.

Direct case maintenance costs. The cost component where major differences occur between the monthly reporting and conventional treatment groups is direct case maintenance which includes labor, postage, and data processing costs for ongoing case maintenance at Southeast District Office. These cost estimates are based on data from the three periods of work measurement observations. Experimental treatment group costs ($6.46) are 50 percent higher than conventional treatment group costs ($4.31). Variant group costs ($6.53) are 52 percent higher. Increased costs for monthly reporting can be attributed to:

- Higher postage costs. The conventional public assistance system in Illinois seldom mails information to clients. The monthly reporting system uses the mails heavily. (Experimental costs averaged $.57 per case month; conventional costs averaged $.13 per case month; a difference of $.44 per case month, which accounts for 20 percent of the difference between the experimental and conventional units in direct case maintenance costs.)

- The costs of operating a highly automated monthly reporting system (MRS). The Illinois MRS used complex software to handle on-line budgeting and eligibility determination. (MRS costs averaged $.68; conventional data processing costs averaged $.11, a difference of $.57 per case month, which accounts for 27 percent of the difference between monthly and conventional systems for direct case maintencosts.)

[1] Throughout this thesis, costs per case month refer to costs of administering a case for one month.

Table 1-1

AVERAGE DIRECT AND INDIRECT ADMINISTRATIVE COSTS PER CASE MONTH FOR THE FOOD STAMP PROGRAM BY TREATMENT GROUP[a]

	EXPERIMENTAL	VARIANT	CONVENTIONAL
Direct case maintenance[b]	$6.46	$6.53	$4.31
Direct intake[c]	3.41	3.41	3.41
Local office management			
Ongoing[d]	2.55	2.58	1.78
Intake	1.21	1.21	1.21
Subtotal	3.76	3.79	2.99
Other			
Regional[e]	.03	.03	.03
State[e]	3.62	3.62	3.62
Subtotal	3.65	3.65	3.65
Total	17.28	17.38	14.36
Dollar difference[f]	2.92	3.02	
Percent difference[f]	20%	21%	

NOTE: All labor estimates include fringe benefits.

[a]Cost per case month represents the estimated costs of maintaining a single case for one month.

[b]Includes labor for caseworkers, casework supervisors, unit clerks, and data processing personnel plus postage and data processing system costs. Based on data from random moment surveys at Southeast District Office. For a disaggregation by worker type, see Table 3.3. Chapter Three provides a detailed discussion of these estimates.

[c]Includes labor for intake workers, casework supervisors, clerks, and data processing personnel plus data processing system costs. Based on salary information from the Illinois Budget Position Inventory System (IBPIS) and other data from the Bureau of Information Systems in the Illinois Department of Public Aid (IDPA).

[d]Includes labor for all other personnel at Southeast District Office plus office overhead costs. Based on salary information from IBPIS and expenditure reports from IDPA.

[e]Based on IDPA expenditure reports.

[f]Difference between monthly and conventional treatment groups.

- Labor costs for staffing the MRS. The volume of information processed on the automated system required about twice as many data input operators as needed to operate the conventional system. The average number of transactions per month on the MRS was 4,386; the conventional system average was 1,558. (Labor costs for the MRS averaged $.83 per case month; labor for the conventional system was $.26, a difference of $.57 per case month, which accounts for 27 percent of the difference between monthly and conventional direct case maintenance costs.)

Two other factors affected the costs of monthly reporting. One was the elimination of the face-to-face recertification requirement. The second was the necessity to solve problems created by the MRS.

The figures reported above describe the net effect of adding monthly reporting and eliminating recertifications. While the overall result was a cost increase, there is some evidence of savings in caseworker time. Caseworkers spent less time in direct case handling tasks under the monthly reporting system. If the time required for other activities (e.g., staff meetings) were equal under the two systems, a caseworker could handle 18 percent more cases under the monthly reporting system than the conventional system.

- The costs of solving problems created by the MRS. Taking redundant actions through the conventional data processing system increased the costs of case maintenance activities for caseworkers and their supervisors and added conventional automated system costs and some conventional system labor costs to the monthly reporting estimates. The costs of using the conventional automated system to provide services to monthly reporters averaged $.32 per case month ($.06 in system costs and $.26 in labor costs). This cost, which is in addition to the MRS costs reported earlier, accounts for 15 percent of the direct case maintenance cost difference between reporting systems. Local office labor costs for monthly reporting caseworkers and supervisors are $.24 higher than labor costs for conventional workers and account for 11 percent of the direct case maintenance cost difference.

The remaining administrative costs in Table 1-1 are not based on work measurement data. As table footnotes indicate, they are estimated from information gathered from various sources within the Illinois Department of

Public Aid. Thus, these costs are not findings; rather, they are estimations included here in order to place the findings on direct case maintenance costs into the larger administrative cost context. This procedure required some assumptions about whether or not monthly reporting would affect specific cost components. These assumptions are briefly noted here.

Intake. Local and state intake procedures were not changed by the introduction of monthly reporting. New clients at Southeast District Office were channeled through existing intake procedures and were randomly assigned to treatment groups. Also, during the demonstration, when monthly reporting cases were closed for failure to file a monthly report, these clients did not have to reapply for assistance and thus repeat the intake process. Ongoing caseworkers handled the reinstatements.

Other (State and Regional Costs). The costs of operating the Illinois Department of Public Aid are held constant because there is no reason to assume that monthly reporting affected the costs of operating IDPA's appeals and hearing section, quality control division, or any other central office costs.[1] If a state implemented a monthly reporting system, however, costs would be incurred--most likely in the design and development of an automated system. In this analysis, such development costs were absorbed by the Monthly Reporting Project and are discussed later in this chapter.

Local Office Management. It seems reasonable to assume that local office administrative costs for overseeing case maintenance tasks were affected by monthly reporting; local office management staff helped make the monthly reporting program operative. The estimates in Table 1-1 reflect that assumption. Estimates of cost differences in local office management are based on the proportions of observed cost differences between treatment groups for direct case maintenance tasks.

Because the automated MRS caused problems throughout the demonstration and because this effect was not expected, it is helpful to reconsider the administrative cost estimates, assuming stabilization of the automated

---

[1] The passage of the Omnibus Reconciliation Act (OBRA) in 1981 has affected quality control activities because a monthly reporting error element was added to the Quality Control regulations. However, these OBRA regulations did not apply to the monthly reporting demonstration in Illinois.

system. The simulation described in Chapter Five can be considered a best estimate of costs eliminating the problems observed during the demonstration. After several adjustments, the per-case month total administrative cost of monthly reporting in the Food Stamp Program is $15.27, which is 6 percent higher than the cost for the conventional system.

Development Costs

The three-dollar-per-case-month administrative cost increase attributed to monthly reporting is an operating cost. It does not encompass the costs of designing and developing the monthly reporting system. Estimates of these development costs (shown in Table 1-2) are based on expenditure data provided by staff of the Illinois Monthly Reporting Project. The figures are adjusted to exclude research costs which are presented in Column 2 of the table and some operations costs (salaries for unit clerks, for example) which are included in the administrative cost estimates presented at the beginning of this chapter. After these adjustments, the estimate for development is $2,020,554.

Not surprisingly, the largest single cost (55 percent of total costs) is for developing the automated monthly reporting system. Software design and development accounted for close to $800,000 and the purchase of computer time cost more than $300,000. Not only does operating and solving the problems of the MRS account for most of the increased administrative costs for monthly reporting discussed earlier but creating the MRS is also the source of the bulk of development costs.

The second large cost of development is salaries accounting for 41 percent of total expenses. Only about one-fourth of the salary cost was expended during the design phases of the project (September 1978 to April 1980). Thus, most salary costs were incurred during implementation and operation. About 11 percent ($30,000) of salary expenditures during the actual demonstration (October 1981 to September 1982) represent payments for data processing personnel in the Illinois Department of Public Aid to handle problems with the automated system.

Development costs can also be considered on a per-case-month basis. The question here is what caseload is an appropriate base for such estimates.

Table 1-2

SYSTEM DEVELOPMENT AND RESEARCH COSTS
FOR MONTHLY REPORTING IN ILLINOIS

	SYSTEM DEVELOPMENT COSTS		RESEARCH
Staff	$830,298		$520,046[a]
EDP Contract[b]	796,621	EDP Rent	6,535
EDP Time[b]	316,256		32,256
Travel	31,384		13,450
Postage	31,142		7,451[c]
Other	14,853		20,939
TOTAL	$2,020,554[d]		$600,677

NOTE: All operating expenses are included in the per-case-month estimates presented at the beginning of Chapter One, thus they must be excluded from these costs. Peoria expenses are also not developmental.

[a]Including $400,046 for additional quality control reviewers to collect data for evaluation contractor.

[b]EDP is an abbreviation for electronic data processing.

[c]Including $4,377 for the recipient survey.

[d]This estimate excludes:

- $47,458 - Peoria EDP rent/time operating MRS during the demonstration
- $92,378 - SEDO EDP rent/time operating MRS during the demonstration
- $63,026 - Postage
- $141,840 - Salaries for operation, unit clerks, and data input operators.

If the two million dollars in development costs are spread across the AFDC[1] caseload at Southeast District Office for the twelve months of the demonstration, the per-case-month cost is quite high--$18.65 per case month. If the entire Illinois AFDC caseload is considered over the same time period, then the per-case-month cost of development is $.68.

Obviously, amortization period is as important as caseload size in calculating these costs. Because the largest proportion of development costs is automated system development, any amortization must involve consideration of an appropriate timeframe--how long will the software remain useful? It is difficult to project timelines for currency of the kinds of software used in the automated MRS. Certainly, any policy or procedural change will mean some system modification. However, it is to be hoped that the basic software packages would have fairly extensive lifetimes and would lend themselves to the types of modifications resulting from policy or procedural changes that are likely to occur in a public assistance program. Thus, it seems plausible to assume a five-year lifetime for the software. Using this longer amortization period and total state caseload figures lowers development costs to $.15 a case month.

Development costs are not included in the remainder of the analysis appearing in this report. If the Illinois monthly reporting demonstration had continued for a longer time period or been expanded to a larger caseload, or both, the additional costs of development would have been relatively minor. However, in any state, the smaller the caseload and the shorter the timeframe, the greater the effect of the costs of developing a monthly reporting system.

The four remaining chapters of this thesis present a detailed analysis of the administrative costs of monthly reporting in Illinois. Chapter Two briefly reviews the work measurement methodology and data collection in Illinois. Chapter Three analyzes average administrative costs for direct maintenance disaggregated into postage, data processing, and labor. Chapter Four disaggregates the administrative cost estimates by major task. In

---

[1]AFDC caseload figures are used here because all AFDC clients at Southeast District participated in the monthly reporting demonstration.

Chapter Five, a series of simulations are applied to the Illinois data to estimate administrative costs for monthly reporting when automated system problems are eliminated.

CHAPTER TWO

APPLICATION OF A WORK MEASUREMENT METHODOLOGY

This analysis of administrative costs is based on a work-measurement methodology and thus represents some departure from the traditional approach to studying administrative costs. Most studies have been based on expenditure data as recorded in administrative accounting systems. Expenditure data were used in this analysis to calculate indirect costs, which were not expected to be much affected by the introduction of monthly reporting. However, the calculation of direct costs, where changes were expected to occur, was based mainly on a work measurement approach.[1]

There are several reasons for choosing a work-measurement approach for this project. In the short run, budgets which delineate labor expenditures for program administration mainly reflect prior years' experiences, and they show fixed amounts to be spent on administrative activities. Any administrative innovation (in this instance, monthly reporting) may result in a divergence between the dollar figures in a budget and the monies actually needed to operate the program. However, given that budgets are usually based on estimated expenditures, effects of the innovation may not be evident for several budget cycles. Because this analysis of the effects of monthly reporting had to be based on the first year's experience, a methodology using expenditure data would probably understate or entirely miss the effects of monthly reporting.

Work measurement facilitates a focus on the day-to-day costs of operating a public assistance office where one would expect to identify any significant changes resulting from a procedural innovation such as monthly reporting.[2] For example, in this demonstration, recertifications were eliminated in the experimental group. This change was expected to affect work

---

[1] Direct costs in this analysis are the maintenance (or ongoing) labor costs of a public assistance office plus data processing and postage costs. Indirect costs include items such as rental of office space and utilities.

[2] Descriptions of tasks for both monthly and conventional reporting appear later in this chapter.

behaviors and patterns and thus administrative costs. However, the procedural changes were not expected to increase or decrease such non-labor costs as rent or utilities or such labor costs as overall regional administration of the Food Stamp Program. These costs can be estimated from expenditure data because they are expected to apply equally to a monthly or conventional reporting system.

A third reason for choosing a work measurement methodology is that a monthly reporting system changes multiple procedures, and it is important to separate their effects. For instance, to determine the effects of monthly reporting, it is necessary to separate the costs of recertifications from the costs of interim activities. This type of analysis cannot be performed with expenditure data because most accounting systems do not separate expenditure data by task.

A work-measurement methodology is intended to provide a detailed understanding of the source(s) of change in total costs as well as the opportunity to analyze individual cost components. For such analyses, the system must produce estimates of administrative costs for specific treatment groups for given time periods. The most important types of information required to arrive at these estimates are: proportion of total time spent on a specific task; total available worktime; and the number of times a given task was completed during the measurement period.[1]

Data on Work Activities

Data on daily work activities serve as the basis for developing estimates of the proportions of time workers devote to specific tasks. There are a variety of work-measurement techniques that may be used to collect data on day-to-day operations in an office. They include stop-watch time studies, historical records systems, professional estimates, and random moment observation systems. All of these techniques can provide reliable information on

---

[1] For a detailed description of a work-measurement system, see: Jacobson, Alvin L., Measurement System for the Analysis of Administrative Effects, Cambridge, Mass., Abt Associates, September 1981. More detailed information on the work measurement methodology used here appears in Appendix A.

how workers spend their workdays. A random moment system was chosen for the Illinois study because this system is suited to a work environment (such as a public assistance office) where tasks are only partly routinized and their sequencing is unpredictable. Further, random moment observation is relatively non-disruptive to workflow, and it is sensitive to the hypothesized effects of monthly reporting because it records changes in the proportions of time spent on various separate activities.

In a random moment observation system, a trained observer tours the office under study and records what the workers in the study are doing at that particular moment. These tours occur at randomly selected times during the workday. An important issue in applying a random moment methodology is designing an observer checklist which is the core work-measurement data collection instrument. It serves as the observer's guide in identifying and classifying office work and non-work activities into discrete tasks, and it is used to record the actual observations. The observation categories must represent a composite of workers' activities as they relate to major program functions. Distinct classes of workers must be separately observed and recorded.

Observations for each task are summed across the measurement period. The total number of work-related observations is calculated. Non-work activities are also observed and totaled. Total observations for a specific task are divided by total work observations, and the proportion is applied to available worktime to determine time expended on each task by each class of workers.

Work-measurement data were collected at Southeast District Office during three time periods in 1982: 11 January to 5 February; 30 April to 28 May; and 16 July to 13 August. This analysis considers data from all three periods. The Illinois demonstration operated from October 1981 to September 1982.

The bulk of the data on daily activities of workers in Southeast District Office was obtained from random moment surveys. Four observers conducted these surveys. An observer was assigned to each of the three treatment groups in the monthly reporting experiment. The fourth observed workers in the financial unit. Clerks in the financial unit edit and code

monthly reporting and conventional forms; data input operators enter the information into the automated client information system. Clients and workers were randomly assigned to treatment groups.

Each observer made twenty trips (or rounds) each day for nineteen days (one of the twenty scheduled days was a holiday) during the first observation period and for twenty-one days during the second and third periods. Observers recorded information on caseworkers, casework supervisors, unit clerks, and financial unit clerks and data input operators. Table 2-1 displays the total numbers of observations for each group of workers by treatment group.

Data on workers' daily activities were recorded on observation checklists.[1] These activities were classified into approximately fifty work and non-work categories. As observers toured each office, they recorded the activity in which each worker was engaged at that time. The observations were summed for each worker type by activity by office for each observation period.

These raw counts of observations often require various adjustments and manipulations before other analytic techniques can be applied. For instance, at SEDO, observers' lunch hours (when no trips were made) were randomly scheduled between 11:30 AM and 1:30 PM, staggered at fifteen-minute intervals. Therefore, observed counts from this time period were adjusted to account for underestimation of work activities during this period.[2]

While it is necessary to define relatively detailed work activities for observers to utilize in recording random moment data, it is more useful for analysis to group these detailed activities into major tasks. The observed tasks were organized into four major work functions:

- Monthly Reporting. This function includes all the activities asssociated with receiving, reviewing, and processing the monthly reports mailed in by clients and, through the automated system, attending to changes in case circumstances that are identified on the monthly reports.

---

[1] Appendix B displays copies of these checklists and describes in some detail the collection of data at Southeast District Office as well as the manipulation of the raw data required for this analysis.

[2] Procedures applied to adjust these observed counts are described in Appendix C.

Table 2-1

TOTAL NUMBER OF OBSERVATIONS
BY TREATMENT GROUP BY WORKER CLASS

	EXPERIMENTAL		VARIANT		CONTROL	
	Number of Workers	Total Obs.	Number of Workers	Total Obs.	Number of Workers	Total Obs.
11 January - 5 February[a]						
Caseworkers	11	4,180	12	4,560	13	4,940
Casework supervisors	2	760	2	760	2	760
Unit clerks	2	760	2	760	0	0
Financial[c]	7	2,660			8	3,040
30 April - 28 May[b]						
Caseworkers	10	4,200	12	5,040	13	5,460
Casework supervisors	2	840	2	840	2	840
Unit clerks	2	840	2	840	0	0
Financial[c]	7	2,940			8	3,360
16 July - 13 August[b]						
Caseworkers	11/12[d]	4,820	11/12[d]	4,820	13/14[e]	5,760
Casework supervisors	2	840	1/2[f]	620	2	840
Unit clerks	1	420	2	840	0	0
Financial[c]	7	2,940			7	2,940

NOTE: If a worker was absent from the office (e.g., sick or on vacation), for each trip on that day, the observer recorded the worker as sick or on vacation. More detail on these observations appears in Appendix B.

[a] Includes 20 days of observation with 20 trips per day. However, since one of the twenty days was a holiday, the actual count for days of observation is 19, for a total of 380 trips.

[b] Includes 21 days of observation with 20 trips per day.

[c] Monthly reporting financial unit observations are listed under the experimental group. However, the costs of this unit are applied equally to the experimental and variant groups.

[d] For 11 days of the observation period, these groups employed 11 caseworkers; for the remaining 10 days, 12 workers were employed.

[e] For six days of the observation period, the conventional unit employed 13 caseworkers; for the remaining 15 days, 14 workers were employed.

[f] For 11 days of the observation period the variant group had only one supervisor; for the remaining 10 days, there were two.

- Redetermination/Recertification. For all cases not assigned to the monthly reporting units, federal AFDC and food stamp regulations mandate that active cases have their eligibility redetermined every six months. This process is similar to the initial eligibility determination process, but redetermination is handled by ongoing caseworkers and the conventional automated computer system. One of the two annual AFDC redeterminations in Illinois must be a home visit; the other occurs in the welfare office. Food stamp recertifications are also performed at these interviews. Recertification for food stamps must occur at a face-to-face interview. Other recertification tasks include: reviewing cases due, preparing for recertifications, verifying and discussing eligibility factors, conducting post-interview paperwork, and making final determinations on changes required.

- Interim Case Maintenance. Changes in client circumstances may be reported through monthly reports or documented during recertification. Interim changes also occur--frequently for some clients and rarely in other cases. Interim case actions include activities such as change of address (the most frequent), changes in household composition, case closures and reopenings, or other changes that may affect benefit levels. These changes are typically triggered by the client (or the office if a problem is detected) and constitute a substantial part of the casework load. Interim changes typically require receipt of a notice, assessment, eligibility review, clerical time, and computer processing.

- Non-Case Work. This function comprises a variety of tasks that support the three direct case maintenance functions but are not aimed at processing individual cases. These activities include supervisor case reviews, unit management, staff meetings, planning, updating manuals, and other general activity.

Workers in the experimental and variant groups performed monthly reporting tasks while conventional workers conducted semi-annual redeterminations/recertifications. All workers handled interim case maintenance activities. Theoretically, most interim tasks should rarely occur under monthly reporting. The information should be obtained from monthly status reports and automatically handled by the data processing system. Because of software problems, Southeast District caseworkers had to process many of these changes manually for most of the Illinois demonstration. However,

issuing supplements and dealing with lost or stolen benefits are expected to continue as "interim" activities under monthly reporting as are attending/preparing for hearings and instituting corrective actions.

Non-casework tasks are the same for workers in all treatment groups.

Appendix B explains the aggregation of activities into major tasks. The detailed activities which are not assigned in total to a major task are allocated across the tasks. Telephone, filing, and conversation are examples of detailed work activities which are allocated among the major task types.[1]

Non-work activity was also observed, recorded, and analyzed. Adjustments were also made for vacation, sick time, and other absences.

Observers at Southeast District Office categorized some observations by program, that is, whether the specific task performed by caseworkers applied only to AFDC, only to the Food Stamp Program, or to both programs. These observations were of caseworkers working on forms at their desks. Other observations did not include an indication of the program involved. Consequently, because workers at Southeast manage "integrated" caseloads, that is, they handle AFDC and food stamp benefits, observations had to be adjusted to isolate food stamp costs.[2] The adjusted data analyzed here include all observations specifically designated as Food Stamp Program tasks plus 50 percent of those labeled AFDC/food stamps. In effect, we assume that any task that is simultaneously performed for both programs would have its cost distributed on a fifty-fifty basis between the AFDC and Food Stamp Programs.[3]

This sum of food-stamp-only observations plus 50 percent of AFDC/food stamp observations was divided by the total of at-desk-forms observations (AFDC only, food stamp only, and both). This proportion was applied to other

---

[1]Appendix D describes the allocation algorithms applied in this analysis.

[2]Detail on allocations appears in Appendix D. Tables of observations appear in Appendix E. Information on non-work is in Appendix F. Non-casework is discussed in detail in Chapter Four. Those calculations appear in Appendix L.

[3]Although this fifty-fifty division between AFDC and food stamps is arbitrary, it seems a reasonable approach to use when direct observations are not obtainable.

unlabeled observations to allocate them to food stamp activity. (See Table 2-2). Thus,

$$\frac{\text{FS observations} + .5(\text{AFDC/FS observations})}{\text{AFDC} + \text{FS} + \text{AFDC/FS observations of caseworkers}}$$

= shared proportion for assigning unlabeled observations to the Food Stamp Program.

An example may be helpful. In the experimental treatment group during the January-February observation period, there were 135 observations of caseworkers engaged in at-desk-forms activities that were for the Food Stamp Program only. There were 531 observations recorded as both and 264 as AFDC only.

Thus,

$$[135 + .50\ (531)]\ /\ [264 + 135 + 531] \ = \ .43$$

For this treatment group for this measurement period, 43 percent of all activities without program identification were allocated to the Food Stamp Program. References to Table 2-2 appear in Chapters Three and Four of this thesis because the fluctuations in food stamp activity affect (raise or lower) the cost estimates in this analysis. Patterns of food stamp activity are discussed in more detail in the analysis of administrative costs for direct maintenance in Chapter Three.

Table 2-2

ALLOCATED PROPORTION OF OBSERVATIONS TO FOOD STAMP PROGRAM TASKS

	JANUARY-FEBRUARY	APRIL-MAY	JULY-AUGUST	AVERAGE
Experimental	.43	.42	.53	.45
Variant	.44	.35	.54	.44
Conventional	.37	.26	.47	.36
Combined experimental and variant[a]	.43	.39	.54	.44

[a]Averages across these treatment groups were used to allocate work observations in the financial unit. See Appendix J.

CHAPTER THREE

AVERAGE DIRECT ADMINISTRATIVE COSTS FOR CASE MAINTENANCE IN THE FOOD STAMP PROGRAM: POSTAGE, DATA PROCESSING AND LABOR

A comparison of the average administrative cost estimates for direct maintenance for the three treatment groups shows substantial differences between monthly and conventional reporting systems. Using average administrative cost estimates to maintain a case for one month,[1] total direct maintenance administrative costs for the Illinois food stamp monthly reporting system were 50 to 52 percent higher than were the administrative costs for the conventional reporting system. (See Table 3-1.) There is a negligible difference (1 percent) between average costs for the experimental treatment group and costs for the variant group.

The cost estimates in Table 3-1 include all direct labor costs for casework and non-casework activities for caseworkers, casework supervisors, clerks, and financial unit personnel. Intake costs, which are local office direct labor costs, are excluded from this set of estimates. Intake costs for the Illinois demonstration were calculated separately because they were not expected to be affected by monthly reporting. (A discussion of intake costs appears in Chapter One.) Casework tasks incorporate activities involved with monthly reporting (for the experimental and variant treatment groups) and with recertification (for the conventional group) as well as activities that are part of interim tasks such as address changes.[2] Non-casework tasks include attending staff meetings, updating manuals, and attending training sessions. Non-work is also included in these estimates.[3] The direct maintenance estimates also include a fringe benefit rate,[4] data

---

[1] Costs are averaged across the three measurement periods for each treatment group.

[2] Appendix B provides listings of observed activities assigned to each task.

[3] Non-work is discussed in detail in Chapter Four. Calculations appear in Appendix F.

[4] See Appendix G for an explanation of the calculation of the fringe benefit rate applied here.

Table 3-1

AVERAGE ADMINISTRATIVE COSTS FOR DIRECT MAINTENANCE OF THE FOOD STAMP PROGRAM (BY TREATMENT GROUP)[a]

	AVERAGE DIRECT ADMINISTRATIVE COSTS PER CASE MONTH	PERCENT DIFFERENCE[b]
Experimental	$6.46	50%
Variant	6.53	52
Conventional	4.31	

[a]Averages are based on per case month estimates of direct maintenance costs for the three observation periods for each treatment group.

[b]Percent difference between monthly reporting groups and the conventional group.

processing costs, and postage costs. Average costs are considered here in order to compare and explain cost differences between monthly and conventional reporting. Where appropriate, references are made to observed costs across the three observation periods.

Because it is impossible to state, a priori, whether or not the net effect of monthly reporting should be an increase or a decrease in direct maintenance administrative costs, it is useful to consider these estimates in light of some general hypotheses about monthly reporting. Monthly reporting clearly adds some tasks to welfare office routines. For example, a new task for caseworkers was responding to the daily monthly reporting system (MRS) messages. Every morning, the monthly reporting caseworker received an updated listing of cases in his/her caseload. Some messages merely provided information; others required some action by the caseworker. Handling these "action" messages was the major monthly reporting task for caseworkers. On the other hand, some other caseworker tasks were reduced or eliminated; face-to-face recertifications, which are conducted semi-annually in the conven-

tional system, were replaced by annual eligibility interviews (in the variant treatment group) or eliminated entirely (in the experimental group).[1]

Other workers also experienced changes in their daily routines with the introduction of monthly reporting. For example, supervisors were no longer required to review completed recertifications. Unit clerks eliminated some tasks involving case records but acquired the task of contacting clients who submitted unsigned monthly report forms.[2]

The average cost estimates in Table 3-1 indicate that the addition of monthly reporting more than offset the reduced level of effort for recertifications or other tasks in the Illinois demonstration. Disaggregation of per-case-month costs illuminates this apparent tradeoff of effort. The remainder of this chapter addresses these issues.

Two comments are warranted before moving on to this discussion. First, it might be expected that the direct maintenance estimates for the variant group would be significantly higher than the costs for the experimental group. The variant group would be expected to be more expensive because annual eligibility reviews were supposed to be performed by these caseworkers. Experimental group caseworkers were not required to conduct face-to-face client reviews. In actuality, no annual reviews were carried out during the January/February measurement period, and apparently, only a limited number of such interviews were conducted over the life of the project.[3] In practice, then, there were almost no procedural differences between the experimental and variant groups, so we would expect the observed costs of the two monthly reporting groups to be about equal. Conventional caseworkers continued a semi-annual redetermination/recertification schedule. Recertifications are discussed at some length in Chapter 4.

Second, it appears that monthly reporting caseworkers spent more time than conventional workers on certain food stamp tasks because of constant

---

[1] As discussed later in this chapter, few, if any, annual eligibility interviews were conducted.

[2] For a thorough description of daily tasks for each type of worker, see: Gruenenfelder, David. Activity and Cost Effects of Monthly Reporting, Springfield, Illinois, Illinois Department of Public Aid, Monthly Reporting Project, 1983.

[3] Observations of interviews are discussed in Chapter Four.

problems with the automated monthly reporting system (MRS).[1] Throughout the experiment, the MRS frequently closed eligible food stamp cases or issued benefits that were incorrectly calculated. These closures and incorrect benefit issuances meant some clients either did not receive their benefits at all or received incorrect amounts.[2] Clients therefore contacted caseworkers, who had to send corrections to the MRS and who frequently had to process special issuances by hand using the conventional system. Thus, this analysis measures not only the costs of operating a sophisticated automated system but also includes the costs of providing benefits to clients via another means when that system experiences serious problems.

Cost estimates for each treatment group by measurement period are displayed in Table 3-2. Estimates increased over time in the experimental group--although the increase between January/February and April/May is only 2 percent. In the variant and conventional groups, total costs dropped between January/February and April/May and increased again in July/August. The costs reflect the fact that observations of food stamp only activities (and thus the proportion of AFDC/FS observations allocated) decreased for the variant and conventional groups in April/May and then increased in July/August. A similar pattern did not occur in the experimental group although food stamp only observations rose substantially during July/August. There is no obvious explanation for this increase in work related only to food stamps. Illinois instituted no policy or procedural changes during the summer of 1982 that would account for this increase in activity.

Succeeding sections of this chapter disaggregate direct maintenance costs by worker class to identify and explicate the differences observed between monthly and conventional reporting systems.

---

[1] Appendix D displays information on numbers of food stamp only observations by treatment group by measurement period.

[2] For more information on these errors, see: Wood, Jean C., Payment Accuracy and Error Rate Effects of Monthly Reporting in the Food Stamp Program (draft), Cambridge, Massachusetts, Abt Associates Inc., March 1984.

Table 3-2

ADMINISTRATIVE COSTS FOR DIRECT MAINTENANCE
OF THE FOOD STAMP PROGRAM
BY TREATMENT GROUP BY MEASUREMENT PERIOD

	EXPERIMENTAL	VARIANT	CONVENTIONAL
January-February	$6.05	$6.59	$4.38
Percent difference[a]	+38%	+50%	
April-May	6.16	5.50	3.24
Percent difference	+90%	+70%	
July-August	7.16	7.51	5.32
Percent difference	+35%	+41%	
Average	6.46	6.53	4.31
	+50%	+52%	

[a]Difference between monthly reporting and conventional groups as a percent of the conventional group total.

Cost Components: Postage, Data Processing, and Labor

In order to understand the effect of specific costs on the average administrative cost estimates, it is necessary to disaggregate the overall estimates into cost components. Table 3-3 displays a disaggregation of the average per case month estimates into data processing costs, postage costs, and labor costs by worker class. It is clear from the costs reported in Table 3-3 that the three sources of increased costs for monthly reporting are postage, data processing, and the financial unit.

Postage Costs

The costs of mailing monthly report forms (including return postage) are an obvious and expected cost of a monthly reporting system. In addition, in the Illinois demonstration, clients received notices and second copies of

Table 3-3

DISAGGREGATED AVERAGE PER CASE MONTH ESTIMATES
OF DIRECT MAINTENANCE COSTS BY TREATMENT GROUP

	TOTAL DIRECT MAINTENANCE $/CASE MONTH	CASEWORKER $/CASE MONTH	% OF TOTAL	SUPERVISOR $/CASE MONTH	% OF TOTAL	CLERK $/CASE MONTH	% OF TOTAL	FINANCIAL UNIT $/CASE MONTH	% OF TOTAL	DATA PROCESSING $/CASE MONTH	% OF TOTAL	POSTAGE	% OF TOTAL
Experimental	$6.46	$3.06	47%	$ .67	10%	$.31	5%	$1.09	17%	$.75	12%	$.57	9%
Percent difference from conventional[a]	50%	1%		4%		0%		19%		15%		10%	
Variant	$6.53	$3.06	47%	$ .66	10%	$.39	6%	$1.09	17%	$.75	11%	$.57	9%
Percent difference from conventional[a]	52%	1%		4%		1%		19%		15%		10%	
Conventional	$4.31	$3.00	70%	$ .48	11%	$.33	6%	$ .26	6%	$.11	3%	$.13	3%

NOTE: Labor costs in this table include estimated costs for casework, non-casework, non-work time, and fringe benefits.

[a]Difference expressed as a percent of total cost in the conventional system.

monthly status reports if they failed to file their monthly reports or if they filed incomplete reports by the due dates. By contrast, in a conventional reporting system, very little client/office communication is via the mails. Termination notices are mailed as are notices to clients who were not at home for scheduled home visits. Thus, the large cost difference in this category (postage costs were over four times higher in the monthly reporting groups than the control group) is not unexpected.[1]

The postage costs reported here do not include the costs of mailing checks or ATPs, which would, of course, be the same for both reporting systems. Also, in Chicago, benefits are not mailed directly to clients. Rather, they are delivered to central "currency exchanges" where clients pick them up.

Data Processing Costs

Data processing costs are almost seven times higher for the monthly reporting system than they are for the conventional system ($.75 per case month for the monthly reporting system versus $.11 for the conventional system). There are three reasons for these higher data processing costs: increased numbers of transactions under monthly reporting, use of the conventional system in addition to the Monthly Reporting System (MRS) because of MRS malfunctions, and a higher cost per transaction on the MRS.

A transaction represents an activity of the data processing system. Transactions can be automatic--designed into the system software (mailing monthly report forms, for instance) or triggered manually, such as by the entry of information. Table 3-4 shows average food stamp transactions per month on the MRS and IPACS, the Illinois Department of Public Aid data entry system, which is the conventional automated system. It is much less sophisticated than the MRS; caseworkers manually determine eligibility and benefit levels, and this information is entered into the system. A large difference in numbers of transactions between monthly and conventional systems is to be expected: the intent of the MRS is to acquire better and more information to

---

[1] Calculations for postage costs appear in Appendix H.

improve accuracy of payment level and eligibility determination. Thus, the expected increase in numbers of transactions in a monthly reporting system contribute to higher data processing costs.

A second reason why monthly reporting costs are higher than conventional costs, as Table 3-4 indicates, is that monthly reporting caseworkers also utilized the conventional reporting data processing system (IPACS) thus incurring additional, unexpected costs. Because of continuous MRS problems, particularly with processing food stamp cases, monthly reporting caseworkers operated under two systems for most of the experiment, resorting to conventional routines to ensure that clients received their benefits.[1] Thus, in

Table 3-4

AVERAGE FOOD STAMP TRANSACTIONS PER MONTH

	PER MONTH	PER CASE MONTH
Monthly Reporting[a]		
MRS	4,386	.95
IPACS[b]	2,202	.48
TOTAL	6,588	1.43
Conventional Reporting		
IPACS[b]	1,558	.68
TOTAL	1,558	.68

[a]Includes experimental and variant treatment groups.

[b]Illinois Department of Public Aid data entry system.

[1]For example, the experimental treatment group averaged 779 special issuances of benefits per month as compared with an average of 296 for the conventional treatment group. Special issuances are non-regular payments such as supplements or emergency payments.

total, monthly reporting cases had twice as many transactions as did conventional cases.[1]

Finally, these transaction counts must be considered from another perspective. The average IPACS transactions for both monthly and conventional reporting at Southeast District Office represent a small proportion of total AFDC/food stamp transactions for the entire state. The Bureau of Information Systems (BIS) within the Illinois Department of Public Aid estimates an average statewide monthly IPACS cost of $106,475 with 3,512,880 transactions, resulting in a transaction cost of $.03. Costs for the monthly reporting system average $7,105 a month with average transactions per month estimated at 10,613 resulting in a transaction cost of $.67.[2] Thus, combining larger number of transactions with higher costs per transaction leads to substantially higher data processing costs for monthly reporting. Table 3-5 displays the costs per case month.

Obviously, the bulk of monthly reporting data processing costs stem from the expense of operating the fully automated MR system. Nevertheless, 6 cents, or 8 percent (the costs of IPACS and conventional equipment), of the 75 cents-per-case month costs can be attributed to monthly reporting caseworker use of the conventional system. Continuing use of the conventional data processing system also affects financial unit costs.

Financial Unit

The third major contributor to increased costs for monthly reporting is labor in the financial unit. Average monthly reporting costs are four times higher than conventional costs ($1.09 per case month compared with $.26).

There were two financial units at Southeast District Office. One unit functioned as support staff for the two monthly reporting treatment groups. Seven workers (two clerks and five data input operators) received,

---

[1] Because the monthly reporting figures for total transactions in Table 3-4 include both the experimental and variant groups, they must be divided by two for direct comparison with the conventional reporters.

[2] See Appendix I for detailed calculations.

Table 3-5

TRANSACTION COSTS PER CASE MONTH

	AVERAGE COST PER CASE MONTH
Monthly Reporting	
MRS[a]	$.66
Conventional Equipment[b]	.05
IPACS	.01
UPDATE[c]	.03
TOTAL	.75
Conventional Reporting	
Equipment	.07
IPACS	.02
UPDATE[c]	.02
TOTAL	.11

[a]Including equipment time-sharing, tape purchase/storage, maintenance personnel, and so on. (See Appendix I.)

[b]Share of costs prorated to monthly reporting. (See Appendix I.)

[c]UPDATE is a system operated by the Illinois Department of Public Aid. It takes data from the entry systems (MRS, IPACS) and "updates" the client information system.

edited, and entered monthly status reports. The other financial unit served the conventional treatment group--5.7 full-time-equivalent clerks and two data input operators.

The difference in staff mix between clerks and data input operators reflects the expectation that a monthly reporting system will generate many more forms per month for data entry--at least one monthly report per client. However, because the monthly status reports (MSR) were designed to facilitate data entry, the MSRs required minimal editing to prepare them for automated entry procedures. Conventional input operators received fewer forms per

month. A form was generated by the conventional unit only if a recertification or interim change occurred. However, the traditional IDPA forms required closer review before entry and were filed by conventional financial clerks, hence the need for more clerks in that unit. Staff in the conventional financial unit also performed non-AFDC work, which was noted by work measurement observers so that these work hours could be eliminated from the analysis.

Workers in the conventional financial unit also performed work for the experimental and variant treatment groups--reviewing, entering data, and filing conventional forms used by monthly reporting caseworkers. Consequently, some of the costs of the conventional financial unit had to be assigned to monthly reporting.[1] The average per-case-month-cost for data editing/entry for monthly reporting for both experimental and variant units is $1.09. Of this sum, $.26 are the costs of conventional financial unit personnel entering, filing, and completing conventional system forms. Thus, about one-quarter of the total financial unit costs for each of the monthly reporting units reflects system failures and the results of coping with those failures.

It seems clear that one of the costs measured here is the cost of solving automated system problems. It is tempting of course, to assume that these problems would disappear at some point in time.[2] In the late summer of 1982, there is some indication of an emerging pattern of greater use of the MRS for case actions; there is also a slightly lower use of the conventional system for case actions. However, it is not clear what a "steady state" level of use of the conventional system would be under monthly reporting. (Table 3-6 displays transactions over the life of the demonstration.) It may be unrealistic to assume stability in a highly automated monthly reporting system over the course of a single year of operation. The Illinois data processing estimates demonstrate that automated system instability can lead to higher data processing costs. In Illinois, higher costs were caused by larger numbers of transactions on the MRS, continuing use of the conventional

---

[1]Allocation of conventional financial unit costs to monthly reporting is explained in Appendix J.

[2]Chapter Five projects costs simulating system stability.

Table 3-6

FOOD STAMP TRANSACTIONS BY MONTH BY TREATMENT GROUP

MONTH	EXPERIMENTAL		VARIANT		CONVENTIONAL
	MRS	IPACS[a]	MRS	IPACS[a]	
1[b]	11	109	15	103	114
2	12	106	14	88	116
3	136	99	130	100	114
4	134	95	128	92	88
5[c]	111	100	129	95	97
6[c]	203	103	196	128	109
7	211	105	210	86	104
8	360	102	398	93	77
9[d]	599	85	626	86	98
10	616	90	559	76	113
11[e]	470	98	400	97	89
12[e]	1,056	114	835	130	149
13	963	113	857	119	111

NOTE: The transactions reported in this table are food stamp only transactions, that is, these frequencies do not account for transactions that applied to both the AFDC and Food Stamp Programs. Also, this table does not include special issuances.

[a]IPACS is the data entry system operated by the Illinois Department of Public Aid.

[b]Month 1 is September 1981.

[c]January/February 1982, first work measurement observation period.

[d]May 1982, second work measurement observation period.

[e]July/August 1982, third work measurement observation period.

data entry system to correct MRS errors, and a higher cost per transaction on the MRS.

Caseworkers

There is very little difference among the three treatment groups in the dollar amounts of average direct administrative costs incurred by caseworkers. The experimental and variant groups are exactly the same at $3.06; this figure is only 2 percent higher than average costs for the conventional unit ($3.00). This result seems to imply that the increase in tasks created by monthly reporting approximately offsets the elimination of recertifications. Accepting this implication without further exploration may lead to incorrect assumptions, however. As noted earlier in this chapter, these average costs per worker group include casework, non-casework, and non-work with non-work set at a constant rate.[1] The term direct casework includes all case-related work activities and should not be confused with total case-worker time which encompasses non-casework tasks (staff meetings, for example) and non-work as well as direct casework (recertification, dealing with monthly reports, and the like). Thus, the cost estimates in Table 3-3 include not only direct casework costs but also costs of non-casework and non-work.

However, if only direct casework costs for caseworkers are considered, then, despite automated system problems and unexpected usage of conventional routines to solve these problems, caseworkers in the experimental and variant groups devoted, on average, 15 percent and 19 percent fewer hours, respectively, to direct casework than did caseworkers in the conventional group. This finding is not surprising. Eliminating semi-annual face-to-face recertifications is expected to reduce time spent on direct casework. In fact, it has been argued that monthly reporting, by eliminating time-consuming face-to-face recertifications, allows caseworkers to handle larger caseloads in the same or less time. The Illinois experiment lends some credence to this supposition. In general, casework hours decreased over

[1] Non-work is discussed in more detail in Chapter Four.

time and were consistently lower in the monthly reporting groups. Non-casework hours increased and are generally higher for monthly reporting caseworkers. Non-casework is defined and analyzed in some detail in Chapter Four, where this issue of direct casework time by treatment group receives further attention.

Supervisors

Average supervisory costs are somewhat higher in the monthly reporting treatment groups ($.67, experimental, and $.66, variant) than in the conventional group ($.48/case month). The relatively small differences do not seem unreasonable when considered in the light of a need for more supervision and/or help during the process of learning a new system. This interpretation is given some support by the fact that in the conventional group there is little variation over time in the numbers of hours supervisors spend on recertifications, whereas in the experimental and variant treatment groups, supervisors devoted two to three times as many hours to monthly reporting during the January/February measurement period. Numbers of hours decreased over time until July/August when monthly reporting supervisors devoted 72 percent (experimental) and 44 percent (variant) fewer hours to monthly reporting than conventional supervisors expended on redetermination. Supervisory time is discussed in more detail in the next chapter under the non-case and non-work headings. In terms of dollars per case month, the differentials in supervisory costs are small (about 4 percent of total difference in costs between monthly and conventional reporting groups) when compared with the effects of data processing and the financial unit.

Clerks

The monthly reporting treatment groups at Southeast District had two unit clerks assigned to each group.[1] The average costs of these clerks

---

[1]The experimental treatment group employed only one unit clerk during the July/August measurement period. This unfilled position somewhat artificially deflates the costs of unit clerks in general and in particular costs for that time period.

($.31 per case month in the experimental group and $.39 in the variant group) were assumed to be a cost created by monthly reporting. These unit clerks filed monthly status reports when they were returned by the financial unit; collected and distributed daily computerized messages to caseworkers; contacted clients who returned unsigned MSRs; and a variety of similar tasks.

The conventional treatment group, of course, did not need these particular support services. However, Southeast District Office employs numerous other clerical staff, some of whom were assigned to caseworkers in the conventional group. These personnel were not observed during the random moment surveys. Because they provided clerical/secretarial support services to conventional reporting caseworkers, an effort was made to identify these personnel and estimate costs for their time.[1] The average estimated cost per case month is $.33.

As with supervisors, the slightly higher cost in the variant group and a 6 percent decrease in the experimental group (artificially deflated by a vacant position in July/August) account for only small proportions of the cost differential--4 percent for the variant group and none in the experimental group.

Summary

Disaggregating per-case-month estimates of average administrative costs for direct maintenance shows that the major cost increases are attributable to postage, data processing, and the financial unit which houses data processing personnel. Relatively small increases are found in caseworker, supervisory, and clerical costs. A proportion of the higher cost of monthly reporting can be attributed to problems created by the automated Monthly Reporting System which necessitated reissuance of food stamp benefits and reinstatement of food stamp clients. While we are almost certainly measuring the costs of solving the problems of a sophisticated automated system, such a finding cannot be considered irrelevant; other states implementing systems similar to the one in Illinois may face some of these same problems.

---

[1] Appendix K details the assumptions and bases for these calculations.

CHAPTER FOUR

AVERAGE LABOR COSTS FOR CASE MAINTENANCE IN THE FOOD STAMP PROGRAM BY MAJOR TASK CATEGORIES

This chapter considers another disaggregation of administrative cost estimates for case maintenance. Here, the per-case-month estimates are broken out by major task: monthly reporting or recertification; interim case maintenance; and non-case. The final component is non-work. Data processing and postage costs are excluded from this portion of the analysis. These expenses have been discussed in detail in the previous chapter, and their effect or amount would not be changed by this disaggregation of labor costs by task.

When only labor costs are considered (Table 4-1), the experimental treatment group exhibits average administrative costs which are 26 percent higher than the costs for the conventional group (as compared with 50 percent

Table 4-1

LABOR COSTS BY TASK BY TREATMENT GROUP BY MEASUREMENT PERIOD

	EXPERIMENTAL	VARIANT	CONVENTIONAL
January-February	$4.73	$5.27	$4.14
Percent difference[a]	14%	27%	
April-May	4.84	4.18	3.00
Percent difference[a]	61	39	
July-August	5.84	6.19	5.08
Percent difference[a]	15	22	
Average	5.14	5.21	4.07
Percent difference[a]	26	28	

[a]Difference between monthly reporting and conventional groups as a percent of the conventional group total.

including postage and data processing); the variant group costs are 28 percent higher (as compared with 52 percent when postage and data processing are included). Total labor costs for monthly reporting are higher in every measurement period. The disaggregation by task, however, provides some interesting information on which tasks are the largest cost components.

Monthly Reporting and Recertification

The average labor costs for all worker classes for monthly reporting tasks show an increase of 26 (experimental) to 28 (variant) percent in total labor costs. While it seems plausible to suggest that the difference in costs between the two monthly reporting groups reflects the requirement for annual eligibility interviews in the variant group, there is no evidence in the observation data to support the hypothesis that variant group costs are higher because of the interview requirement. In each measurement period (including January-February when no annual eligibility reviews were conducted), there were more observations of interviews in the experimental group than in the variant group. Even in April-May when variant group caseworkers were scheduled to be conducting annual eligibility interviews, there are fewer observations in the variant group than in the experimental group.

Despite the automated system problems in the monthly reporting groups, which resulted in increased frequency of client contact (Illinois staff reported that there was "standing room only" in the reception area[1]), the monthly reporting groups had fewer interview observations in every measurement period than did the conventional group. It is possible that these interviews were of much shorter duration than typical recertification interviews. The elimination of formal recertification and use of a mail-in report was expected to reduce amount of caseworker time spent with clients, thus decreasing labor costs. This reduction appears to have happened.

The offsetting effect of eliminating semi-annual recertification can be seen in Table 4-2. Half of all conventional labor costs can be attributed

[1]The MRP Coordinator at Southeast District Office prepared monthly memoranda on office activity. These reports provide a useful anecdotal history of monthly reporting at SEDO.

Table 4-2

DISAGGREGATED LABOR COST ESTIMATES
PER CASE MONTH BY TREATMENT GROUP[a]

	AVERAGE $/CASE MONTH	MONTHLY REPORTING $/CASE MONTH	% OF TOTAL	REDETERMINATION/ RECERTIFICATION $/CASE MONTH	% OF TOTAL	INTERIM $/CASE MONTH	% OF TOTAL	NON-CASE $	% OF TOTAL	NON-WORK $	% OF TOTAL
Experimental	$5.14	$1.77	34%	-0-	-0-	$1.16	23%	$1.44	28%	$.77	15%
Percent difference from conventional[b]	+26%	+43%		-50%		+10%		+16%		+7%	
Variant	$5.21	$1.98	38%	-0-	-0-	$1.05	20%	$1.41	27%	$.77	15%
Percent difference from conventional[b]	+28%	+49%		-50%		+7%		+15%		+7%	
Conventional	$4.07	-0-	-0-	$2.05	50%	$ .75	18%	$ .78	19%	$.49	12%

[a]Excludes postage and data processing costs.

[b]Difference between monthly reporting and conventional groups as a percent of the conventional group total.

to this activity. Thus, if the Illinois monthly reporting experiment had involved nothing more than the addition of monthly reporting tasks and the subtraction of recertifications (that is, no sophisticated data processing, no changes in other activities), total labor costs would have been reduced between 1 and 7 percent.

Recertification costs involve all classes of workers, but the major component is caseworker labor--85 percent of recertification costs is for caseworker labor. Table 4-3 shows data on completed recertifications. There is a decrease in frequency of completed recertifications across the three measurement periods and considerable variation in cost for caseworker labor per recertification and per case month. It appears that, to some extent, hours of recertification activity more directly reflect the frequency of home visits. Not surprisingly, there are higher frequencies of home visits in spring and summer; Chicago winters are not conducive to outdoor activity.

In fact, about half of the costs of recertification can be attributed to home visits. The home visit requirement is part of eligibility determination for the Illinois AFDC Program. It is not required for the Food Stamp Program, but recertification for food stamps must occur during an in-person interview. When the redetermination/recertification requirements are combined--as they are when one caseworker handles both assistance programs--then one food stamp recertification is likely to take place during a home visit. Caseworker labor to visit clients at home must be considered expensive. The home visit category accounts for 46 percent ($.94) of the average total cost of recertification per case month.

The requirement for face-to-face recertifications has been much discussed in recent years. The design of the monthly reporting program in the Illinois variant group was an effort to include an eligibility interview within a monthly reporting experiment. Because the requirement was somewhat informal, documentation of the occurrence of these interviews and observed costs of including face-to-face eligibility interviews within a monthly reporting system were unavailable.

Interim Case Maintenance

Theoretically, the cost of completing a single interim task should be about the same across treatment groups. There is no obvious reason to assume

Table 4-3

RECERTIFICATION COSTS--CONVENTIONAL CASEWORKERS

	NUMBER OF RECERTI-FICATIONS	HOURS PER RECERTI-FICATION	COST PER RECERTI-FICATION	CASEWORKER COST OF RECERTIFI-CATION PER CASE MONTH
January-February	233	1.2	$10.14	$1.01
April-May	143	1.6	13.43	.86
July-August	120	3.5	28.95	1.52
Average	165	1.9	15.87	1.15

HOME VISITS--CONVENTIONAL CASEWORKERS

	PROPORTION OF HOME VISITS TO TOTAL OBSERVATIONS OF RECERTIFICATION	COST PER CASE MONTH OF HOME VISITS
January-February	.42	$ .77
April-May	.51	.83
July-August	.46	1.25
Average	.46	.94

that providing a specific service to a client between recertifications should cost more or less than providing this same service between monthly report submissions. However, it would be expected that there would be fewer occurrences of interim tasks in the monthly reporting groups.

Operationally, in Illinois, neither of these suppositions was proven accurate. The estimates presented here indicate that interim case maintenance in the monthly reporting system was more expensive. This difference probably reflects the automated system problems discussed in Chapter Three. When clients did not receive benefits, even though they had submitted their monthly status reports, they telephoned and/or visited the office to deal with the situation. Monthly reporting caseworkers issued (on average) 2.5 times as many special allotments as did conventional workers, with close to 60 percent of these issuances done via the conventional data processing system. Most of these activities were observed and recorded as interim tasks. Given the extent of the problems with the automated system, it is not surprising that average interim costs in the monthly reporting groups are 54 percent higher (experimental at $1.16) and 41 percent higher (variant at $1.05) than in the conventional group ($.75).

It is worth noting here that in both the experimental and variant treatment groups, interim case maintenance costs, in actual dollars and as a proportion of total costs, decreased over time. (See Table 4-4.) The decrease in monthly reporting interim costs lends support to the suggestion that there was some stabilization in the operations of monthly reporting as reflected by an increased number of transactions appearing on the automated MRS. These interim costs, however, remain higher in the monthly reporting treatment groups, presumably continuing to reflect caseworkers using conventional methods to solve the problems of the automated system. Conventional interim costs also decreased in dollars and proportionately, between the first and second measurement periods. Between the second and third measurement periods, interim costs for the conventional group increased in dollars but not proportionately.

It is possible then that as some software problems were solved and as in-office routines were created to deal with unresolved software problems, the amount of time monthly reporting caseworkers and their supervisors devoted to interim case maintenance tasks decreased in actual dollars and as a proportion of total costs. It is also possible that had the demonstration

Table 4-4

INTERIM CASE MAINTENANCE COSTS PER CASE MONTH
BY TREATMENT GROUP BY MEASUREMENT PERIOD

	EXPERIMENTAL	VARIANT	CONVENTIONAL
January-February	$1.61	$1.25	$1.31
Percent of total costs	34%	24%	32%
April-May	1.08	.97	.35
Percent of total costs	22%	23%	12%
July-August	.80	.94	.59
Percent of total costs	14%	15%	12%

operated for a second year, there would have been a continuing decrease in interim tasks under monthly reporting.

Non-Casework

Average non-casework costs per case month (Table 4-2) are higher in the monthly reporting groups ($1.44, experimental, and $1.41, variant) than they are in the conventional treatment group ($.78). They also account for a noticeably higher proportion of total per case month costs in the monthly reporting groups.[1]

Non-casework costs increased across the three measurement periods at Southeast District Office. This finding applies to all three treatment groups. However, it seems likely that the pattern exhibited by the conventional reporting group reflects seasonal fluctuations in casework activity--higher levels of interim activity and in-office recertification interviews during the winter months with less interim activity and increased observations of home visits in the spring and summer.

The rather large increases in non-casework in the monthly reporting groups deserve attention. (See Table 4-5.) It is useful to define the five

[1]Non-casework allocations and calculations appear in Appendix L.

Table 4-5

NON-CASEWORK COSTS BY TREATMENT GROUP BY MEASUREMENT PERIOD

	EXPERIMENTAL	VARIANT	CONVENTIONAL
January-February	$ .54	$1.14	$ .52
Percent of total costs	11%	22%	12%
April-May	1.27	1.13	.66
Percent of total costs	26%	27%	22%
July-August	2.51	1.96	1.17
Percent of total costs	43%	32%	.23%

activities categorized as non-casework. Three of these subtasks are: manuals work (reading, removing, or inserting pages); attending staff meetings; and participating in training sessions. A fourth subtask is "planning work" which is primarily for preparing for home visits and reading Caseworker Daily Action Reports, Daily Listings of Client Information System Transactions, or similar reports. The fifth subtask is labeled "general activity--other" and is defined as:

> ". . . sharpening pencils, straightening desk, obtaining forms from supply, mail sorting, completing travel vouchers and various personnel forms, taking phone messages, getting paychecks, etc. 'Search' activity (e.g., flipping through forms) should also be coded here."

The bulk of observed non-casework across the three measurement periods and for all three treatment groups is concentrated in "general activity--other." This subtask involves ambiguous activities that might alternatively be observed and recorded as non-work. Further support for suggesting that some activities recorded as non-casework are actually non-work can be found in that there were virtually no observable differences in the ratios of non-work hours to hours available for work across the three treatment groups during the first two measurement periods. Given this information as well as the fact that, between April-May and July-August, non-work observations for

both caseworkers and supervisors dropped in both the experimental and variant treatment groups but increased in the conventional group, it seems reasonable to assume that some proportion of "general activity--other" is indeed non-work.

The important points here are that while non-casework costs increased over time in all three treatment groups, the increases (in dollars and proportionately) are much higher for the monthly reporting treatment groups. These increases are almost certainly not a function of implementing monthly reporting. The observation data indicate that monthly reporting caseworkers required only a marginal increment in non-casework hours (for staff meetings and training sessions) to deal with the demands of monthly reporting. This finding strongly suggests that some fairly substantial proportion of non-casework activities in the monthly reporting groups were actually non-work activities.

Comparison of Direct Casework and Non-Casework Costs and Hours

Given the preceding discussion of non-casework, it is interesting to compare time and costs for direct casework and non-casework. Costs across the three measurement periods and average costs for direct casework (monthly reporting plus interim or recertification plus interim) are displayed in Table 4-6. The differences between the monthly reporting treatment groups and the conventional group are small indeed; costs are only 4 to 8 percent higher on average. Costs in this table reflect the findings reported in earlier sections of this chapter--that over time costs for both monthly reporting and interim tasks decreased in the experimental treatment group.

Combining this information on decreasing casework time and costs with the data on increased non-casework hours and costs leads to an interesting point. Monthly reporting caseworkers handled 25 percent and 12 percent more food stamp case months (and, by inference, higher caseloads) per worker than did conventional caseworkers. Table 4-7 provides the information needed to calculate these estimates. Recall that a case month is defined as the cost of maintaining a case for one month.

To place average minutes-per-case month (in column 5) into a useful perspective, it is helpful to calculate that a conventional reporting caseworker requires 32 hours to handle 173 case months (11 minutes X 173 case

Table 4-6

COSTS FOR DIRECT CASEWORK BY TREATMENT GROUP[a]

	EXPERIMENTAL	VARIANT	CONVENTIONAL
January-February	$3.49	$3.37	$3.15
Percent difference	+11%	+7%	
April-May	2.83	2.41	1.97
Percent difference	+44	+22	
July-August	2.46	3.32	3.30
Percent difference	-25	0	
Average	2.93	3.03	2.81
Percent difference	+4	+8	

[a]For monthly reporting, these costs include monthly reporting and interim case maintenance costs. For conventional reporting, costs include recertification and interim case maintenance.

[b]Percent difference between monthly reporting and conventional groups.

Table 4-7

AVERAGE CASE MONTHS PER WORKER

	AVERAGE NUMBER OF WORKERS (1)	AVERAGE CASE MONTHS (2)	AVERAGE CASE MONTHS PER WORKER (3)	TOTAL AVERAGE HOURS FOR DIRECT CASEWORK[a] (4)	AVERAGE HOURS PER CASE MONTH PER WORKER[b] (5)
Experimental	10.8	2,335	216	351	.15 (9 mins.)
Variant	11.8	2,273	193	336	.15 (9 mins.)
Conventional	13.2	2,286	173	415	.18 (11 mins.)

NOTE: Averages are calculated by treatment group over the three measurement periods.

[a]Monthly reporting tasks or recertification tasks plus interim case maintenance tasks.

[b]Column (5) = [(4) ÷ (3)] ÷ (1).

months ÷ 60 minutes = 32 hours), while a monthly reporting caseworker in the experimental unit requires 32 hours to handle 216 case months--the 25 percent differential noted earlier. This finding is particularly interesting in light of the earlier discussion on the operation of the MRS. Because of automated system problems, monthly reporting caseworkers were, in effect, operating a dual food stamp system. However, they were able to carry out these tasks for more clients in less time than conventional caseworkers required to operate a single public assistance system.

Further, while higher non-casework costs may well be a temporary effect of implementing monthly reporting, they should not be considered as inescapable and/or permanent. As noted earlier, it seems reasonable to assume that some proportion of non-case time is actually non-work and that some proportion of those hours could be spent on casework. Thus, if a trend toward higher hours of non-casework (as seen in Illinois) continued after stabilization of a monthly reporting system, it would be reasonable to assume that monthly reporting caseworkers could service larger caseloads than their counterparts in a conventional system.

Non-Work

In principle, one would not expect monthly reporting to affect non-work rates.[1] With the exception of certain kinds of non-work time that arise as a result of scheduling gaps or mechanical problems (computer down-time, for example), non-work may be seen as the operational reflection of a conscious or unconscious judgment by office management about how hard employees should be pressed. In the short term, assuming that staffing levels remain constant, an administrative innovation (such as monthly reporting) may increase or decrease the amount of work that workers are required to perform; the amount of non-work time may decrease or increase accordingly. In the long term, however, one might expect that staff will be added or subtracted to reach the "office equilibrium" level of non-work.

Table 4-8 provides information on the average proportions of non-work hours relative to hours available for work. (This total excludes sick leave, vacation, personal leave, and allowed lunch and break time.) There is no

[1] See Appendix F for the calculation of non-work rates.

Table 4-8

OBSERVED AVERAGE HOURS OF NON-WORK AS A PROPORTION OF AVERAGE AVAILABLE WORK HOURS[a]
(BY TREATMENT GROUP BY WORKER CLASS)

	EXPERIMENTAL			VARIANT			CONVENTIONAL		
	NET AVAILABLE WORK HOURS	NON-WORK HOURS[b]	RATIO	NET AVAILABLE WORK HOURS	NON-WORK HOURS	RATIO	WORK HOURS	NON-WORK HOURS	RATIO
Caseworkers	1,262	113	.09	1,286	145	.11	1,579	181	.11
Supervisors	224	29	.13	194	0	0	233	58	.25
Unit clerks	206	18	.09	252	43	.17		NA[c]	
Financial	876	270	.31	876	270	.31	868	253	.29

NOTE: The hours reported in this table are total net hours available for work and total non-work. They have not been adjusted to apply only to the Food Stamp Program. (See Appendices B and F.)

[a]Available work hours exclude allowed lunch and break time, as well as sick time, vacation, and other leave time.

[b]Non-work hours here are net non-work. Allowed lunch and break have been excluded.

[c]Clerical personnel for the conventional treatment group were not included in the random moment surveys, thus, non-work data for this worker class were not available.

difference between caseworkers in the variant and conventional groups, and the experimental group is nearly the same. There is only minimal difference between the two financial units. There is some variation in the ratios for supervisors and unit clerks, which is probably because of the small numbers of personnel observed. Four unit clerks (two in experimental and two in variant) were observed in January/February and April/May. In July/August, there was only one clerk in the experimental unit. A similar situation

applied to supervisors: from early January 1982 to August 1982, the variant treatment group had only one supervisor.

The data in Table 4-8 are offered to explore non-work patterns across worker classes. Non-work rates are calculated using net non-work hours (the observed numbers on which the averages in Table 4-8 are based) and hours of work (monthly reporting or recertification plus interim case maintenance plus non-casework) for each class of workers for each time period.[1]

To reflect the expected equilibrium situation, average non-work rates were applied in this analysis. Consequently, variations in the non-work column of Table 4-2 can be traced to the application of a rate, that is, the monthly reporting treatment groups show higher total work costs than does the conventional group, thus when a rate is applied--so many cents of non-work per dollar of work--non-work costs are higher in actual dollars for monthly reporters.

An example is helpful here. Using observed data from April/May, direct casework and non-casework costs for caseworkers in the conventional unit are $1.31. For caseworkers in the experimental unit, these costs are $1.64. The average non-work rate across all units is .1088, or $.11 for every dollar of total direct work time. Thus, non-work costs for the conventional group would be $.14 (.1088 x $1.31) while experimental group costs would be $.29 (.1088 x $1.64). Even though the same rate was applied, the difference in the work costs which are used as bases led to a higher non-work cost for the experimental group.

Non-work time in the financial unit offers additional information on the problems of the automated MRS. Observers recording data on work activity in the financial unit noted system downtime as a specific category of non-work. This category was high in the monthly reporting unit. System shutdowns to debug or repair or system crashes were further irritants to caseworkers and, according to Illinois MRP personnel located at Southeast District, happened fairly often during the demonstration, causing more delays in benefit issuance and reissuance.

Despite this system difference, when net non-work time (which excludes allowed lunch and break) is averaged across the workers in the two financial units, conventional workers evidenced more non-work time per worker

[1] See Appendix F.

per day of observation--1.6 hours as opposed to 1.4 hours for monthly reporting financial workers. Further, when system downtime is averaged across workers, non-work time due to system downtime for the monthly reporting unit is 33 minutes per worker per day of observation--that is, about 40 percent of the average non-work time for monthly reporters can be attributed to system downtime. The average is 3 minutes (or 3 percent) in the conventional unit.[1] It is the case that the highest non-work ratios, hours of non-work per worker per day of observation, and non-work rates were observed in the financial units.

Summary of Costs by Task

Average direct casework hours for caseworkers indicate that, under a monthly reporting system, they can provide service for larger caseloads in about the same or fewer hours than are needed by conventional caseworkers. This finding is supported by the fact that average non-casework hours and costs (the residual work observation category) are substantially higher for the monthly reproting treatment groups, primarily based on observations of caseworkers and their supervisors.

It is likely that the higher costs for interim activities in the monthly reporting groups can be traced to the correction of problems caused by the automated MRS. Again, the findings are really measurements of the costs of correcting specific problems in a monthly reporting system. Although monthly reporting and interim costs decrease over time in the experimental unit, the considerable variations in these costs in the variant and conventional units may imply that the experimental unit decreases are merely reflections of seasonal flunctuation in the workload.

Non-work time is much the same across worker classes--when it is not similar, the variations are not a function of monthly reporting. The two financial units evidence the highest non-work ratios, partially a reflection of automated system downtime.

---

[1] It is interesting to note that shortly after the conclusion of the monthly reporting demonstration, the conventional financial unit at Southeast District Office was reorganized and some procedures were changed. One important change is a 50 percent reduction in clerical staff within the unit. There was no reduction in numbers of data entry personnel.

CHAPTER FIVE

ESTIMATED ADMINISTRATIVE COSTS EXCLUDING SYSTEM PROBLEMS

The research presented in this thesis shows that in the Illinois Food Stamp Program, a monthly reporting system had substantially higher costs than did a conventional reporting system. Because a large proportion of the higher costs can be attributed to problems that we would expect to be resolved over time, it is instructive to reconsider the costs of monthly reporting assuming that these difficulties were resolved. This chapter attempts to simulate such an occurrence.

Prior to presenting our simulations, it is helpful to review some of the sources of increased costs for monthly reporting. They include:

- Postage costs;
- Operating a highly automated monthly reporting system (MRS);
- Staffing costs for the MRS;
- Solving problems created by the MRS.

Some of these costs will not decrease over time--postage, for instance. Such expenditures must be considered as fixed. However, other costs might reasonably be expected to stabilize and, indeed, the Illinois data lend some support to this notion that over time a monthly reporting system will reach steady state.

The average costs for the experimental treatment group ($6.46 per case month) serve as the basis for these simulations, which are cumulative. Each adjustment is based on the premise of the preceding one. (Table 5-1 displays all of the simulations.)[1]

---

[1] Calculations of indirect costs appear in Appendix O.

Table 5-1

SUMMARY OF SIMULATIONS ADJUSTING MONTHLY REPORTING ADMNISTRATIVE COST ESTIMATES

	DIRECT CASE MAINTENANCE COSTS	PERCENT DIFFERENCE[a]	TOTAL AVERAGE ADMINISTRATIVE COSTS	PERCENT DIFFERENCE[b]
Average	$6.46	50%	$17.28	20%
Adjustment to eliminate conventional data processing	.32			
Subtotal	6.14	42	16.85	17%
Adjustment for interim costs	.60			
Subtotal[c]	5.54	29	16.04	12%
Adjustment for non-case	.27			
Subtotal[c]	5.27	22	15.66	9%
Adjustment for financial unit	.12			
Subtotal[c]	5.15	19	15.50	8%
Adjustment for MRS (automated system problems resolved)	.17			
TOTAL[c]	$4.98	16%	$15.27	6%

[a]Expressed as the percent difference between experimental and conventional treatment groups. Average costs for the conventional group are $4.31 per case month.

[b]Average costs for the conventional group are $14.36 per case month.

[c]Cumulative impact of this and previous adjustments.

Data Processing and Interim Costs

A first assumption is that, with the automated MRS fully operational, monthly reporting use of the conventional data processing system would virtually disappear. That is, if the MRS functioned smoothly, as, in reality, the system did during the last months of the demonstration, then monthly reporting caseworkers would not have to resort to use of the conventional automated system to process case changes. Eliminating the costs of the conventional data processing system allows the subtraction of $.32 from the cost per case month. Of this $.32, $.06 represents system costs for operating IPACS (Table 3-5), the conventional data entry system while $.26 is the cost of labor for conventional financial unit personnel who code and enter data and file forms (Table 3-3).[1] These adjustments bring the monthly reporting estimate to $6.14 which is 42 percent higher than the estimated direct administrative costs of conventional reporting. (See Table 5-1.)

A second expected result of system stabilization is a substantial decrease in interim activity. In theory, only appeals and ensuing corrective actions, replacing lost or stolen benefits, and handling certain emergency or supplemental issuances are the interim case maintenance tasks that should appear in a monthly reporting system. Consequently, to establish a lower bound estimate for interim case maintenance, the observation data for the tasks of appeals/hearings, corrective actions, issuing supplements, and replacing lost/stolen benefits were reviewed for the monthly reporting treatment groups. On average, across the three measurement periods these tasks required about 60 hours of caseworker time. With this estimate as a base and adjusting supervisory rates and clerk costs accordingly, a lower bound per-case-month estimate for interim case maintenance costs in the Illinois monthly reporting system is $.37 per case month.

In practice, however, interim case maintenance activities are not so limited. Monthly reporting clients do contact caseworkers on other issues (address changes, loss of income, additions to the household, and so on), thus, even with the submission of monthly reports, caseworkers carry out

[1] Appendices I and J show detailed calculations for these estimates.

interim case maintenance tasks. Thus, the estimate based on the limited list of case maintenance tasks is probably an underestimate. However, in a steady-state system, it is not unreasonable to assume that there would be much less time devoted to interim activities than was observed in Illinois. The observed case maintenance reflects many of the automated system problems and is most likely an overestimate. Thus, as an upper bound figure, we chose the conventional reporting unit's average cost per case month for interim activity, which is $.75. To arrive at a reasonable estimate for a monthly reporting unit, which over time should evidence fewer hours devoted to interim case maintenance activity, we chose the midpoint between our upper ($.75) and lower ($.37) bounds which is $.56.

If the average interim case maintenance cost of $1.16 (Table 4-2) is replaced in Table 5-1 with our conversative estimate of $.56, a decrease of $.60, then the adjusted estimate for administrative costs in a monthly reporting system is $5.54 which reduces the differential between monthly and conventional reporting to 29 percent.

If this adjusted estimate is substituted into the overall administrative costs in Chapter One, the overall estimate for monthly reporting becomes $16.04 per case month. This cost is only 12 percent higher than the administrative estimate for conventional reporting. In this scenario, which assumes a smoothly functioning automated system with no fallback in the conventional data processing system, most of the higher costs of monthly reporting can be attributed to the data processing costs of operating a stablized sophisticated MRS, labor to operate the MRS, and postage.

Non-Case Costs and Financial Unit Costs

It appears from the Illinois work measurement data that as caseworkers and their supervisors grew familiar with monthly reporting, they were able to complete their casework tasks in less time. Consequently, observed non-case hours and costs increased. There may be a need for some increase in non-case time at least in the short term to provide training and to conduct more staff meetings. However, given the discussion in Chapter Four about observed non-case tasks and the probability that some of the observations recorded as non-casework are actually non-work, it seems clear that in the

long run, non-case costs should increase minimally if at all. Average non-case costs for the experimental group are $1.44 (Table 4-2). Average non-case costs for the conventional treatment group are $.78. A generous estimate for non-case costs for a monthly reporting group might be half again as large, or $1.17. If this figure is used in the simulation, costs per case month are decreased by $.27.

Taking the $5.54 estimate from the previous section and adjusting non-case costs, the administrative costs per case month for monthly reporting would be $5.27. This estimate is 22 percent higher than the $4.31 direct administrative cost estimate for conventional reporting.

Another adjustment to monthly reporting costs involves financial unit personnel. A smoothly functioning MRS will most likely require fewer operational staff especially if a steady state MRS minimized system downtime. As pointed out in Chapter Four, MRS downtime averaged 3.8 hours per day of observation across the three measurement periods. If mechanical downtime were held to the level observed in the conventional system (.3 hours per day of observation), one-half of one full time position could be eliminated. Assuming smoother operations could eliminate another one-half position, the monthly reporting financial unit could employ six persons (two clerks and four data input operators)--one less data input operator than during the demonstration.

Average financial unit costs were estimated at the beginning of this chapter to be $.83--$1.09 minus $.26 for conventional financial unit personnel. They would drop to $.71 if fewer staff were employed. Thus, a final adjusted administrative estimate of the direct costs of monthly reporting would be $5.15 per case month. The difference between this estimate and the conventional estimate of $4.31 is 19 percent.

Substituting the $5.15 estimate for monthly reporting into the overall administrative costs displayed in Chapter One sets the overall monthly reporting estimate at $15.50 per case month--8 percent higher than the costs for conventional reporting ($14.36).

---

[1]The only means for decreasing postage costs is to eliminate the payment of return postage on monthly report forms.

Monthly reporting remains more expensive to operate generally because of postage costs; the sophisticated MRS; and personnel to staff the automated system. Postage, as noted earlier, is a fixed cost.[1] Automated system staffing may over the long term be an area for further adjustment, but the data in hand do not indicate how or where changes, other than the minimal ones suggested here, might occur. It does, however, seem reasonable to assume that automated system costs should decline as problems are minimized. Some MRS costs are immutable (equipment, for example), but others (machine time and labor costs for solving system problems) might be expected to decrease. Thus, the final simulation here eliminates 50 percent of the average state-level personnel and testing costs for the MRS. Adjusting the data processing per-case-month costs to account for this change lowers the cost of data processing to $.52 per-case-month, a $.17 decrease, for a direct administrative estimate of $4.98. This final simulation is 16 percent higher than the $4.31 estimate of conventional reporting. Substituting this figure into the overall administrative estimate leads to a final simulation cost of monthly reporting which is 6 percent higher than the administrative costs of conventional reporting.

Recertification in a Monthly Reporting System

This simulation considers the costs of including recertification in a monthly reporting system. It is important to note that recertification, in this instance, means a face-to-face, in-office interview such as conventional reporting systems employ. The average per-case-month recertification cost for the conventional reporting unit was $2.05. However, that estimate assumes semi-annual recertifications, of which one recertification is a home visit. If recertification is assumed to be an annual in-office interview--a procedure frequently suggested for a monthly reporting system--thus eliminating home visits, then average recertification costs would be $1.11 per case month. [$2.05 - $.94 (cost of home visit per case month) = $1.11].

---

[1] The only means for decreasing postage costs is to eliminate state payment of return postage on monthly reports.

This cost could then be added to the final monthly reporting simulation in Table 5-1, which assumes automated system problems have been eliminated. Further, the estimate in Table 5-1 decreases interim case maintenance costs. It does not seem unreasonable to assume that a system which includes annual recertification plus monthly reporting would have a relatively low level of interim case maintenance activity--assuming stabilization of an automated system, of course.

Thus, the estimate for direct case maintenance in a monthly reporting system with an annual in-office recertification requirement would be $6.09 per case month--42 percent higher than the observed conventional system and 22 percent higher than the adjusted monthly reporting costs. Overall administrative costs for a monthly reporting system with annual in-office recertification would be $16.77 per case month. This simulated figure is 17 percent higher than the observed cost per case month for the Illinois conventional reporting system and 10 percent higher than the adjusted monthly reporting costs.

Summary

Assuming that a sophisticated data processing system will stabilize over time and that data processing problems will be minimal, it is possible to simulate a monthly reporting system with administrative costs only 6 percent higher than costs for a conventional system. Higher costs for monthly reporting can be attributed to fixed (and higher) expenses for postage, maintaining a sophisticated data processing system, and staffing the automated system.

It is important to emphasize here that the simulations in this chapter were not observed during the monthly reporting demonstration in Illinois. They are not an accurate reflection of events that actually occurred. Rather, the overall simulation is an attempt to describe a situation that might have taken place.

APPENDICES

APPENDIX A

CONCEPTUAL FRAMEWORK FOR A WORK MEASUREMENT METHODOLOGY

APPENDIX A

CONCEPTUAL FRAMEWORK FOR A WORK MEASUREMENT METHODOLOGY

As discussed in Chapter Two, a work-measurement methodology is intended to provide a detailed understanding of the source(s) of change in total costs as well as the opportunity to analyze individual cost components. In order to do so, the system must produce estimates of administrative costs for given offices for given time periods. The most important types of information required to arrive at such estimates are: proportion of total time spent on a specific task; total available worktime; and the number of times a given task was completed during the measurement period. This appendix briefly describes the procedures of a work-measurement system, which lead to acquisition of this information.[1]

Data on Work Activities

Data on daily work activities serve as the basis for developing estimates of the proportions of time workers devote to specific tasks. A random moment system was chosen for the Illinois study because this system is suited to a work environment (such as a public assistance office) where tasks are only partly routinized and their sequencing is unpredictable. Further, random moment observation is relatively non-disruptive to workflow, and it is sensitive to the hypothesized effects of monthly reporting because it records changes in the proportions of time spent on various separate activities.

In a random moment observation system, a trained observer tours the office under study and records what the workers in the study are doing at that particular moment. These tours occur at randomly selected times during the workday. Clearly, two important issues in applying a random moment methodology are calculating a sample size and designing an observer checklist.

---

[1] For a detailed description of a work-measurement system, see: Jacobson, Alvin L., Measurement System for the Analysis of Administrative Effects, Cambridge, Mass., Abt Associates Inc., September 1981.

The sampling strategy must ensure that sufficient numbers of observations will be taken during each day of observation. Two considerations underlie determination of the required number of worker observations. First, the number of observations must be large enough to ensure that time allocation estimates will meet the required statistical confidence and precision levels. Second, the number of office tours and the number of observation days must achieve the required sample size while allowing normal workflow to proceed.[1]

The observer checklist is the core work-measurement data collection instrument. It serves as the observer's guide in identifying and classifing office work and non-work activities into discrete tasks, and it is used to record the actual observations. The observational categories must represent a composite of workers' activities as they relate to major program functions. Types, or classes, of workers must be separately observed and recorded.

Daily totals of observations for each task are summed across the measurement period. The total nubmer of observations is also calculated. This procedure requires subtraction of both the allowed non-work and the observed non-work observations.[2] Total observations for a specific task are then divided by the number of total work observations and are used to determine total available worktime expended for each work activity for each class of workers.

Hours Available for Work

Conversion of the random moment proportions described above into total estimated task times requires knowing how many hours that workers are available for work. The determination of available work time is slightly complicated by the need to exclude from total paid time those hours not available for work (e.g., sick, vacation, personal leave, educational leave,

---

[1]For a detailed discussion of procedures used to calculate sample sizes, see: Jacobson, Alvin L., Final Report on the Research Design for Studying Administrative Effects of the Monthly Retrospective Reporting System, Cambridge, Mass., Abt Associates Inc., March 1980.

[2]Allowed non-work includes lunch and break periods.

holidays, and so on). Hours available for work should correspond to the total time workers could reasonably be expected to be observed as part of the work-measurement system. Paid time that is not available for work (sick, vacation, personal leave, holidays) is treated as part of the fringe benefit rate.

It is important to note that available work hours are calculated for the entire measurement period; work hours are computed separately for each principal class of workers; work hours must be adjusted to account for part-time workers; and estimated allowed lunch and break time is excluded from the estimate of total hours available.

Total available work hours are multiplied by the random moment observation proportions to arrive at estimates of total task time for each major task in the study.

Product Counts

The number of times a given task is completed during the measurement period is called a product count. Unit task times, i.e., the average amount of time a worker spends doing a task one time, are computed by dividing total estimated task time by task product counts. The product counts for this analysis are drawn from client information systems which Illinois maintains for operational purposes. Most state public assistance departments maintain such systems.

The availability of a client information system is only a first step; most of these data sources require fairly extensive analysis to derive product counts. Such analysis is needed to deal with such problems as:

1. Multiple transactions per task type. In order to know how many times a particular task was performed, we must typically look at the "transaction,"--that is, a change in one element of the client information on the state's master data file. For example, changing a client's address is a transaction. However, some tasks, a benefit change, for instance, can involve several transactions. For example, the addition of a person to a household, which leads to a change in benefit amount, could also and often does include an address or name change. Thus, the benefit change involves at

least three transactions. Consequently, one analysis issue is reassembling these individual transations into a complete record of a specific task.

2. Multiple case action dates. Each transaction usually has a number of associated dates; selection of an appropriate date to denote completed work can and does vary depending on case circumstances. A further complication in this category is the common practice in welfare offices of stretching out over several workdays the submission of all transactions relevant to a given action. For example, a worker may submit a record of having completed a review on the day of the interview but submit the required followup documentation a week later. Correlating dates requires a review of transactions by case identification number and by source of information (redetermination interview, monthly report form). The range of dates must also be reviewed. Dates separated by more than ten days generally represent separate transactions.

3. System generated transactions. Such transactions are automatically generated by the data processing system and usually do not require any action on the part of the workers being observed. Thus, these transactions must be excluded from the product counts. Generally, such system activity can be identified from information in user and worker manuals for the automated system.

Administrative cost estimates can also be calculated on a per-case-month basis. The total time spent on a specific task remains the numerator while the monthly caseload for a specific office becomes the denominator. Obviously, this approach eliminates the need for product counts and may be extremely useful when transaction files preclude the estimation of accurate product counts. Administrative costs for this analysis were calculated on a per-case-month basis.[1]

---

[1] Wage rates can be calculated from actual paid salaries for the observed workers or mean standard wage rates can be applied. In this analysis, actual wage rates were calculated and applied because caseworkers were randomly assigned to the three treatment groups.

Wage Rates

In order to convert unit task time estimates to dollars, hourly wage rates are needed. Rates are calculated for every class of worker in the study.[1]

Actual salaries and hence wage rates for a group of workers vary according to the gradations of the applicable personnel system. Consequently, the most straightforward basis for computing a single wage rate for each class of workers is use of a weighted rate. Weights are based on numbers of workers in each pay category.

The wage rate is multiplied by the unit task time to arrive at a unit task cost estimate.

Calculating Unit Cost Estimates

Presuming that the problems noted in the preceding discussion are successfully resolved, we now have the data needed to calculate unit task costs. The basic equations are:

Number of observations of a specific task	÷	Total number of work observations	=	Proportion of time spent on the specific task
Proportion of time on specific task	x	Total number of paid available work hours	=	Total time spent on specific task
Total time spent on specific task	÷	Product count for the specific task	=	Time spent performing specific task one time
Total time spent on specific task	x	Hourly wage rate	=	Total cost of task
Total cost of task	÷	Total number of case months	=	Cost of task per case month

[1] Appendix B discusses problems encountered in attempting to derive product counts from Illinois data.

Total spent performing specific task one time	x	Hourly wage rate	=	Direct labor cost estimate for performing task one time

An example is useful here. If, for instance, we have 789 observations of workers performing activities related to the task of recertification, and we also have 3,875 total work observations, then:

789 ÷ 3,875 = .2036 is the proportion of time our workers were observed in recertification activities

Further, we have 1,453 hours of paid available work time, so:

.2036 x 1,453 = 296 total hours spent on recertification during the measurement period

Our product count (number of recertifications completed during the measurement period) is 142, thus:

296 ÷ 142 = 2.08 hours for a single recertification

The wage rate for this unit of caseworkers is $8.15, so:

2.08 x $8.15 = $16.98 direct case worker labor cost estimate for performing one recertification

OR

296 total recertification hours x $8.15 = $2,412.40 are the total caseworker labor costs for recertification

$2,412.40 ÷ 2,286 case months = $1.06 per case month as the cost of caseworker labor for recertification.

Other Levels of Analysis

The administrative cost analysis can be extended to further, more sophisticated levels. For example, direct staff support services can be incorporated. Such services include clerks, supervisors, and the like. Unit task costs can be expressed per case month or as rates. Estimates can include the incremental costs of non-case and non-work activities as well as fringe benefits paid to labor.

Non-case work includes work activities that are not directly related to clients, such as staff meetings, updating manuals, and office training sessions. A portion of the observations of some general activities (filing, telephone, and conversation), are allocated to non-case work.

The category of non-work is precisely what its title implies: observed activities that cannot be labeled as work such as reading the newspaper or drinking coffee. Non-work includes allowed lunch and break periods. Also, some telephone and conversation activities are personal rather than work-related.

Finally, a series of indirect costs can be incorporated into the estimates. Such indirect costs include: personnel costs for local, regional, and central administrative staffs; costs linked to separate accounting cost centers such as appeals, training, and quality control; general non-personnel charges including overhead, equipment, and office supplies; and intake costs.[1]

Costs for clerks, supervisors, and other support staff as well as costs for non-case and non-work time are derived in a manner similar to the one for direct labor costs described earlier. These support costs are sometimes expressed as rates--that is, a ratio of cost per $1 of direct labor time for a specific task. For example: if we have 52 observations of supervisors performing recertification activities, and we have 498 total work

---

[1]For a step-by-step explanation of the calculations, equations, and other algorithms needed to perform an analysis of administrative effects, see: Jacobson, Alvin L., Analysis Plan and Application of Administrative Cost Analysis for Evaluating the Effects of Monthly Retrospective Reporting Studies, Cambridge, Mass., Abt Associates Inc., June 1982.

observations, then the proportion of supervisory time observed in recertification activity for the unit's supervisors for this measurement period is .1044. Assuming 186 hours of paid available work time, we calculate 19.42 hours devoted to recertifications. To calculate the supervisory rate for recertifications, we multiply those 19.42 hours times a supervisory wage rate of $10.28/hour. This figure is divided by the number of hours caseworkers spent on recertification activities (from preceding page) which is 296 hours times the caseworker wage rate:

(19.42 x $10.28) ÷ (296 x $8.15)

OR

199.64 ÷ 2,412.40 = .0828

Thus, the supervisory rate for recertification is $.08 for each $1 of direct caseworker labor costs.

To arrive at the next level of estimation, we would multiply $.0828 times our direct labor cost estimate for recertification, thus:

$.0828 x $16.98 = $1.41

This cost is added to the direct labor cost to arrive at a new estimate for the costs of completing a single recertification:

$16.98 + $1.41 = $18.39 estimated direct labor (caseworker/supervisor) costs for performing one recertification.

We could also estimate supervisory costs per case month. If we have 19.42 hours spent on recertification, then:

$19.42 (10.28--wage rate) = $199.64 total supervisory labor costs for recertification

$199.64 ÷ 2,286 case months = $.0873 is the cost per case month of supervisory labor for recertification.

So, our per-case-month costs for caseworkers and supervisors would be:

$1.06 + $.09 = $1.15

We can convert our unit cost for recertification to a per-case-month cost by computing a product count/case month ratio. Our recertification product count was 142 which we divide by the number of case months (2,286) to arrive at a cost per unit per-case-month.

Thus,

142 ÷ 2,286 = .0621

.0621 ($18.39) = $1.14

The one-cent difference in per-case-month costs for the two methods is due to rounding error. Similar calculations are performed for unit clerk costs and for financial unit personnel.

Once all direct labor costs have been calculated, non-case costs and non-work and fringe benefit rates can be applied. Calculations for these rates and costs are described in Appendices L, F, and G.

This brief discussion of an administrative effects analysis based on a work measurement methodology focuses on the costs of labor. It has not considered one other important issue--data processing costs. Because data processing costs are expected to increase significantly under monthly reporting, it is important to arrive at estimates of these expenditures. It is difficult to set out simple rules for these estimations because the types of

information available vary considerably.[1] What is important to note is that such data are needed and estimates on costs of the system, hardware, equipment rental, paper, forms, and postage are important to an analysis of the administrative costs of a monthly reporting system. They are added to the total estimated labor costs.

[1] Appendix E describes the procedures used for estimating data processing costs.

APPENDIX B

DATA COLLECTION AT SOUTHEAST DISTRICT OFFICE

APPENDIX B

DATA COLLECTION AT
SOUTHEAST DISTRICT OFFICE

In this appendix, the various instruments used for data collection at Southeast District Office are displayed. Also, the assignment of observed work activities to major tasks is displayed in more detail. Information on several other categories of data is provided.

Exhibits B-1, B-2, and B-3 are the observer checklists used at Southeast District Office. As observers toured the office, they recorded the activity of every worker on the checklists.

While it is necessary to define relatively detailed work activities for observers to utilize in recording random moment data, it is often more useful for analysis to group such detailed activities into major work tasks. Exhibits B-4 and B-5 demonstrate the allocation of detailed work activities to major tasks. Some activities (e.g., telephone) are allocated across tasks. (See Appendix D.)

Hours Available for Work/Actually Worked

Total possible work hours can be computed by multiplying the total number of possible personal days by the number of hours worked per day. The first three columns of Tables B-1, B-2, and B-3 provide this information for each class of workers by treatment group by observation period.

Data on paid and unpaid leave were collected by observers and checked against official payroll records. Exhibit B-6, which is the reverse side of the Observer Checklist, clarifies the recording of data on workers who were sick, on vacation, and so on. This instrument was completed for each "trip." Observers checked with the SEDO payroll clerk to ensure that their data concurred with the official records.

Paid and unpaid leave time were totaled by worker type for each observation period to arrive at unadjusted estimates of paid available workdays. SEDO staff are allowed a 60-minute lunch break (unpaid) and two 15-minute daily breaks (paid).

Exhibit B-1

OBSERVER CHECKLIST FOR EXPERIMENTAL AND VARIANT TREATMENT GROUPS

ILLINOIS DEPARTMENT OF PUBLIC AID
Monthly Reporting Project
Observer Checklist

R-21 (4/82)

101/102 = 1	157 = 7
103 = 3	145 = 8
104 = 4	109 = 9
552 = 5	

Office/District: _____ Date: ___/___/___
Observer: _____ Start Time: _____
Route: _____ End Time: _____

	TASK	CASEWORKER AFDC	CASEWORKER FS	CASEWORKER AFDC/FS	CASEWORKER Unkwn	Supervisor	Unit Clerk	FINANCIAL AFDC	FINANCIAL Other
	I. AT DESK FORMS WORK								
01.	A. NON-AFDC/FS								
02.	B. MONTHLY REPORT PROCESSING								
03.	1. School Verification								
04.	2. Budgeting								
05.	3. WIN/Job Service								
06.	4. Daily Messages								
07.	5. Other Monthly Reporting								
08.	C. AFDC/FS CASE REVIEW								
09.	D. AFDC/FS INTERIM ACTIONS								
10.	1. Address Change								
11.	2. Data Change								
12.	3. Benefit Change								
14.	4. Supplement								
15.	5. Lost/Stolen								
16.	6. Void & Rewrite								
17.	7. Add a Person								
18.	8. Appeals/Hearings								
19.	9. Preparation-Interview								
20.	10. Corrective Action								
21.	11. Other Interim								
22.	E. UNIT MANAGEMENT								
	II. NON-FORMS WORK								
23.	A. FILING								
24.	B. TELEPHONE 1. Work								
25.	2. Non-Work								
26.	3. Unknown								
27.	C. CONVERSATION 1. Work								
28.	2. Non-Work								
29.	3. Unknown								
30.	D. INTERVIEW 1. Annual Eligib.								
31.	2. Other								
32.	E. EDIT, MAIL, VERIFICATIONS								
33.	F. DATA INPUT								
34.	G. INQUIRY 1. MSR								
35.	2. Other								
36.	H. GENERAL ACTIVITY 1. Planning								
37.	2. Manuals Work								
38.	3. Staff Meetings								
39.	4. Training								
40.	5. Other General Activity								
41.	I. IN TRANSIT								
42.	J. OTHER NON-FORMS WORK								
	III. NON-WORK								
43.	A. LUNCH/BREAK								
44.	B. DELAY/WAITING								
45.	C. OTHER NON-WORK								
	IV. OUT-OF-OFFICE								
46.	A. HOME VISITING								
47.	B. OTHER WORK								
48.	C. OTHER OUT-OF-OFFICE								
49.	V. RESEARCH								
	VI. TOTALS								

Exhibit B-2

OBSERVER CHECKLIST FOR CONVENTIONAL TREATMENT GROUP

ILLINOIS DEPARTMENT OF PUBLIC AID
Monthly Reporting Project R-21 (4/82)
Observer Checklist

Office/District: _____ Date: ___/___/___
Observer: _____ Start time: _____
Route: ____ End time: _____

2027=2	157=7
552=5	T-145=8
684=6	EI=○

	TASK	CASEWORKER AFDC	FS	AFDC/FS	Un-kwn	SUPER VISOR	FINANCIAL AFDC	other
	I. AT DESK FORMS WORK							
01	A. NON-AFDC/FS							
02	B. AFDC/FS REDETERMINATION/RECERTIFICATION							
03	1. Preparation							
04	2. Budgeting							
05	3. School Verification							
06	4. WIN/Job Service							
07	5. Reporting/Grant Change							
08	6. Other Rede/Recert							
09	C. AFDC/FS CASE REVIEW							
10	D. AFDC/FS INTERIM ACTIONS							
11	1. Address Change							
12	2. Budgeting							
13	3. Grant Change							
14	4. Supplement							
15	5. Lost/Stolen							
16	6. Void and Rewrite							
17	7. Appeals/Hearings							
18	8. Corrective Action							
19	9. Other Interim Actions							
20	E. UNIT MANAGEMENT							
	II. NON-FORMS WORK							
21	A. FILING							
22	B. TELEPHONE 1. Work							
23	2. Non-Work							
24	3. Unknown							
25	C. CONVERSATION 1. Work							
26	2. Non-Work							
27	3. Unknown							
28	D. INTERVIEW 1. Rede/Recert							
29	2. Other							
30	E. DATA INPUT							
31	F. INQUIRY							
	G. GENERAL ACTIVITY							
32	1. Planning Work							
33	2. Manuals Work							
34	3. Staff Meetings							
35	4. Training							
36	5. Other General Activity							
37	H. IN TRANSIT							
38	I. OTHER NON-FORMS WORK							
	III. NON-WORK							
39	A. LUNCH/BREAK							
40	B. DELAY/WAITING							
41	C. OTHER NON-WORK							
	IV. OUT OF OFFICE							
42	A. HOME VISITING							
43	B. OTHER WORK							
44	C. OTHER OUT OF OFFICE							
45	V. RESEARCH							
	VI. TOTALS							

Exhibit B-3

OBSERVER CHECKLIST FOR FINANCIAL UNIT

ILLINOIS DEPARTMENT OF PUBLIC AID R-21 (4/82) Date: ____/____/____
Monthly Reporting Project Start Time: _____
Observer Checklist - Financial Unit End Time: _____

101/102 = 1	157 = 7
103 = 3	145 = 8
104 = 4	109 = 9
552 = 5	DIO's = 0

Site: Southeast
Observer: _____
Route: _____

	TASK	MONTHLY REPORTING		CONVENTIONAL	
		AFDC	Other	AFDC	Other
	I. AT DESK FORMS WORK				
09	D. EDIT INPUT FORMS				
	II. NON-FORMS WORK				
23	A. FILING				
24	B. TELEPHONE 1. Work				
25	2. Non-Work				
26	3 Unknown				
27	C. CONVERSATION 1. Work				
28	2. Non-Work				
29	3. Unknown				
32	E. EDIT, MAIL, VERIFICATIONS				
33	F. DATA INPUT				
34	G. INQUIRY 1. MSR				
35	2. Other				
36	H. GENERAL ACTIVITY 1. Planning				
37	2. Manuals Work				
38	3. Staff Meetings				
39	4. Training				
40	5. Other General Activity				
	I. IN TRANSIT				
42	J. OTHER NON-FORMS WORK				
	III. NON-WORK				
43	A. LUNCH/BREAK				
44	B. DELAY/WAITING				
45	C. OTHER NON-WORK				
	IV. OUT-OF-OFFICE				
47	B. OTHER WORK				
48	C. OTHER OUT-OF-OFFICE				
49	V. RESEARCH				
	VI. TOTALS				

Exhibit B-4

ALLOCATION OF WORK ACTIVITIES TO TASK TYPES
(EXPERIMENTAL AND VARIANT TREATMENT GROUPS)

TASK TYPES	ACTIVITY TYPES[a]	WORKER CLASS
1 Monthly Report Processing	1 Monthly Reporting MR Processing[b]	1 Caseworker
	2 MR School Verification (1)	
2 Address Change, Data Change Add a Person	3 MR Budgeting (1)	2 Caseworker Supervisor
	4 MR WIN/Job Service (1)	
	5 MR Daily Messages (1)	
	6 Other MR (1)	3 Unit Clerk
3 Benefit Change	7 AFDC/FS Case Review (2-9)	
	8 Address Change (2)	
4 Supplement	9 Data Change (2)	
	10 Benefit Change (3)	
5 Lost/Stolen	11 Supplement (4)	
	12 Lost/Stolen (5)	
6 Void and Rewrite	13 Void and Rewrite (6)	
	14 Add a Person (2)	
7 Appeals/Hearings	15 Appeals/Hearings (7)	
	16 Preparation-Interview (1)	
8 Corrective Action	17 Corrective Action (8)	
	18 Other Interim (9)	
9 Other Interim Actions	19 Unit Management[b]	
	20 Filing (1-9)	
	21 Telephone (1-9)	
	22 Conversation (1-9)	
	23 Interview - Annual Eligibility (1)	
	24 Interview - Other (2-9)	
	25 Edit, Mail, Verification (1)	
	26 Data Input (1)	
	27 Inquiry - MSR (1)	
	28 Inquiry - Other (2-9)	
	29 General Activity - Planning	(non-case related)
	30 General Activity - Manuals	
	31 General Activity - Staff Meetings	
	32 General Activity - Training	
	33 Other General Activity	
	34 In-Transit	
	35 Other Non-Forms Work (1-9)	
	36 Lunch/Break[c]	
	37 Delay/Waiting[c]	
	38 Other/Non-Work[c]	
	39 Other Work Out-of-Office (2-9)	
	40 Other Out-of-Office[c]	

[a]Numbers in parentheses indicate the tasks to which a specific activity is allocated.

[b]This activity applies to casework supervisors only.

[c]Denotes a non-work activity.

Exhibit B-5

ALLOCATION OF WORK ACTIVITIES TO TASK TYPES
(CONVENTIONAL TREATMENT GROUP)

TASK TYPES	ACTIVITY TYPES[a]	WORKER CLASS
1 AFDC/FS Redetermination/Recertification	1 AFDC/FS RD/RC[b]	1 Caseworker
	2 RD Preparation (1)	
	3 RD Budgeting (1)	2 Casework Supervisor
	4 RD School Verification (1)	
2 Address Change	5 RD WIN/Job Service (1)	
	6 RD Reporting/Grant Change (1)	
3 Budgeting	7 Other RD/RC (1)	
	8 AFDC/FS Case Review (2-10)	
4 Grant Change	9 AFDC/FS Interim Actions[b]	
	10 Address Change (2)	
5 Supplement	11 Budgeting (3)	
	12 Grant Change (4)	
6 Lost/Stolen	13 Supplement (5)	
	14 Lost/Stolen (6)	
7 Void and Rewrite	15 Void and Rewrite (7)	
	16 Appeals/Hearings (8)	
8 Appeals/Hearings	17 Corrective Action (9)	
	18 Other Interim Actions (10)	
9 Corrective Action	19 Unit Management[b]	
	20 Filing (1-9)	
10 Other Interim Actions	21 Telephone (1-9)	
	22 Conversation (1-9)	
	23 Interview - RD/RC (1)	
	24 Interview - Other (2-10)	
	25 Inquiry (1-10)	
	26 General Activity - Planning	(non-case related)
	27 General Activity - Manuals	
	28 General Activity - Staff Meetings	
	29 General Activity - Training	
	30 Other - General Activity	
	31 In-Transit	
	32 Other Non-Forms Work (1-9)	
	33 Lunch/Break[c]	
	34 Delay/Waiting[c]	
	35 Other Non-Work[c]	
	36 Home Visit (1)	
	37 Other Work - Out-of-Office (1-9)	
	38 Other Out-of Office[c]	

[a]Numbers in parentheses indicate the tasks to which a specific activity is allocated.

[b]This activity applies to casework supervisors only.

[c]Denotes a non-work activity.

Table B-1

TOTAL AVAILABLE WORKER TIME BY TYPE OF WORKER
(JANUARY/FEBRUARY)

OFFICE/ WORKER TYPE	NUMBER OF WORKERS	DAYS OF WORK	HOURS PER DAY	TOTAL POSSIBLE WORK HRS	PAID LEAVE[a]	LEAVE WITHOUT PAY	ALLOWED LUNCH/ BREAKS	NET AVAILABLE WORK HOURS
Experimental								
Caseworkers	11	20	8.5	1,870	248.5	127.5[b]	264	1,230
CW Supervisors	2	20	8.5	340	63.75	0	48.75	228
Unit Clerks	2	20	8.5	340	72	0	47.25	221
Variant								
Caseworkers	12	20	8.5	2,040	271.7	144.5	286.5	1,337
CW Supervisors	2	20	8.5	340	29.75	0	48.96	261
Unit Clerks	2	20	8.5	340	68.25	0	48	224
Conventional								
Caseworkers	13	20	8.5	2,210	290	0	339	1,581
CW Supervisors	2	20	8.5	340	74.75	0	46.8	218
Financial								
Monthly Reporting	7	20	8.5	1,190	146.75	0	184.2	859
Conventional	8	20	8.5	1,360	210.5	297.5[b]	150.3	702

[a]Includes one holiday for all staff.

[b]Includes hours assigned to vacant positions.

Table B-2

TOTAL AVAILABLE WORKER TIME BY TYPE OF WORKER
(APRIL/MAY)

OFFICE/ WORKER TYPE	NUMBER OF WORKERS	DAYS OF WORK	HOURS PER DAY	TOTAL POSSIBLE WORK HRS	PAID LEAVE	LEAVE WITHOUT PAY	ALLOWED LUNCH/ BREAKS	NET AVAILABLE WORK HOURS
Experimental								
Caseworkers	10	21	8.5	1,785	210	18.7	274.65	1,282
CW Supervisors	2	21	8.5	357	25.2	0	58.5	273
Unit Clerks	2	21	8.5	357	19.3	0	59.7	278
Variant								
Caseworkers	12	21	8.5	2,142	372	178.5[a]	280.8	1,311
CW Supervisors	2	21	8.5	357	152.2		29.76	158
Unit Clerks	2	21	8.5	357	28		57.75	269
Conventional								
Caseworkers	13	21	8.5	2,321	429.25[b]	0	333.75	1,558
CW Supervisors	2	21	8.5	357	34.25	0	57	266
Financial								
Monthly Reporting	7	21	8.5	1,250	140.25	0	195.75	914
Conventional	8	21	8.5	1,428	138.25	68	215.7	1,006

[a]Includes hours assigned to vacant positions.

[b]Includes 357 hours of out-of-office training for two caseworkers.

Table B-3

TOTAL AVAILABLE WORKER TIME BY WORKER CLASS (JULY/AUGUST)

OFFICE/ WORKER TYPE	NUMBER OF WORKERS	DAYS OF WORK	HOURS PER DAY	TOTAL POSSIBLE WORK HRS	PAID LEAVE	LEAVE WITHOUT PAY	ALLOWED LUNCH/ BREAKS	NET AVAILABLE WORK HOURS	
Experimental									
Caseworkers	11	11	8.5	1,028	216.75[a]	7.50	141.84	661.91	1,275
	12	10	8.5	1,020	256.00[b]	18.50	132.56	612.94	
CW Supervisors	2	21	8.5	357	150.75	0.00	36.40	170.00	
Unit Clerks	1	21	8.5	179	29.75	4.25	25.59	119.00	
Variant									
Caseworkers	11	11	8.5	1,028	322.25[c]	10.00	122.78	572.97	1,211
	12	10	8.5	1,020	243.50[d]	2.00	136.68	637.82	
CW Supervisors	1	11	8.5	94	8.50	0.00	15.09	70.42	162
	2	10	8.5	170	59.00	0.00	19.59	91.41	
Unit Clerks	2	21	8.5	357	38.50	0.00	56.00	263.00	
Conventional									
Caseworkers	13	6	8.5	663	214.50	78.50[e]	65.00	305.00	1,598
	14	15	8.5	1,785	127.50	88.00[f]	277.00	1,292.50	
CW Supervisors	2	21	8.5	357	93.25	3.00	46.00	215.00	
Financial									
Monthly Reporting	7	21	8.5	1,250	199.75	10.00	184.00	856.00	
Conventional	7	21	8.5	1,250	151.50	11.25	192.00	895.00	

[a] Includes 93.5 hours of out-of-office training for one caseworker.

[b] Includes 85 hours of out-of-office training for one caseworker.

[c] Includes 187 hours of out-of-office training for two caseworkers.

[d] Includes 170 hours of out-of-office training for two caseworkers.

[e] Includes 76.5 hours leave of absence.

[f] Includes 85 hours leave of absence.

Exhibit B-6

OBSERVATION PERSONNEL COUNT

	CASEWORKERS	CASEWORK SUPERVISORS	UNIT CLERKS	FINANCIAL
TOTAL MARKS ON CHECKLIST (from reverse side):	☐	☐	☐	☐
97 Sick	☐	☐	☐	☐
95 Business	☐	☐	☐	☐
96 Vacation	☐	☐	☐	☐
91 Leave of Absence	☐	☐	☐	☐
92 Time off without pay	☐	☐	☐	☐
93 Compensatory Time	☐	☐	☐	☐
94 Other (Explain: _____)	☐	☐	☐	☐
98 Vacant Position	☐	☐	☐	☐
TOTAL (Add all boxes above)	☐	☐	☐	☐
Expected	☐	☐	☐	☐
Missing (expected minus total)	☐	☐	☐	☐

Allowed lunch and break time was estimated based on the number of paid workdays; these estimates were subtracted from total paid work hours to arrive at net available work hours. Tables B-1, B-2, and B-3 report paid and unpaid leave, allowed lunch/break time, and net available work hours for each worker class by office by observation period.

The analysis of direct task time requires that total hours be limited to hours actually worked by each class of workers for each observation period. In order to compute hours worked, it is necessary to subtract non-work hours from available work hours. Non-work hours are calculated using observation data to arrive at net non-work hours, that is non-work time exclusive of allowed lunch and break time. Sample calculations for obtaining these values appear in Appendix F. Tables B-4, B-5, and B-6 summarize the results of the hours worked calculations.

Estimated Caseloads

Because the final administrative cost estimates are expressed on a case month basis, information on office caseloads is needed. These data were obtained from the Department of Public Aid by Monthly Reporting Project staff. The Illinois Department of Public Aid maintains statistics on AFDC caseloads and on non-AFDC/food stamp caseloads. The department estimates that 80 percent of its AFDC caseload receives food stamps; it appears from our analysis of data from the Illinois case data base that the AFDC/food stamp caseload is slightly higher than 80 percent, thus, AFDC caseloads were adjusted to reflect this assumption. Table B-7 shows these figures.

Table B-4

HOURS WORKED BY WORKER CLASS BY TREATMENT GROUP
(JANUARY/FEBRUARY)

OFFICE/ WORKER TYPE	AVAILABLE WORK HOURS	NET NON-WORK OBSERVATIONS[a]	WORK AND NET NON-WORK OBSERVATIONS	PROPORTION (COLUMN 2 ÷ COLUMN 3)	NON-WORK HOURS (COLUMN 4 X COLUMN 1)	HOURS WORKED (COLUMN 1 MINUS COLUMN 5)
Experimental						
Caseworkers	1,230	253	3,254	.0778	96	1,134
CW Supervisors	228	88	615	.1431	33	195
Unit Clerks	221	38	581	.0654	15	206
Variant						
Caseworkers	1,337	287	3,529	.0813	109	1,228
CW Supervisors	261	0	679	0	0	261
Unit Clerks	224	70	609	.1149	26	198
Conventional						
Caseworkers	1,581	344	4,216	.0816	129	1,452
CW Supervisors	218	86	584	.1473	32	186
Financial						
Monthly Reporting	859	659	2,254	.2924	251	608
Conventional	702	582	2,244	.2594	182	520

[a]Excluding allowed lunch and break.

Table B-5

HOURS WORKED BY WORKER CLASS BY TREATMENT GROUP
(APRIL/MAY)

OFFICE/ WORKER TYPE	AVAILABLE WORK HOURS	NET NON-WORK OBSERVATIONS[a]	WORK AND NET NON-WORK OBSERVATIONS	PROPORTION (COLUMN 2 ÷ COLUMN 3)	NON-WORK HOURS (COLUMN 4 X COLUMN 1)	HOURS WORKED (COLUMN 1 MINUS COLUMN 5)
Experimental						
Caseworkers	1,282	475	3,438	.1382	177	1,105
CW Supervisors	273	120	742	.1617	44	229
Unit Clerks	278	76	745	.1020	28	250
Variant						
Caseworkers	1,311	348	3,525	.0987	130	1,181
CW Supervisors	158	0	416	0	0	158
Unit Clerks	269	163	719	.2267	61	208
Conventional						
Caseworkers	1,558	497	4,168	.1192	186	1,372
CW Supervisors	266	178	700	.2543	68	198
Financial						
Monthly Reporting	914	669	2,459	.2721	249	665
Conventional	1,006	599	2,317	.2585	260	746

[a]Excluding allowed lunch and break.

Table B-6

HOURS WORKED BY WORKER CLASS BY TREATMENT GROUP
(JULY/AUGUST)

OFFICE/ WORKER TYPE	AVAILABLE WORK HOURS	NET NON-WORK OBSERVATIONS[a]	WORK AND NET NON-WORK OBSERVATIONS	PROPORTION (COLUMN 2 ÷ COLUMN 3)	NON-WORK HOURS (COLUMN 4 X COLUMN 1)	HOURS WORKED (COLUMN 1 PLUS COLUMN 5)
Experimental						
Caseworkers	1,275	179	3,440	.0520	66	1,209
CW Supervisors	170	25	454	.0551	9	161
Unit Clerks	119	29	317	.0915	11	108
Variant						
Caseworkers	1,211	237	3,267	.0725	88	1,123
CW Supervisors	162	0	422	0	0	162
Unit Clerks	263	110	714	.1541	41	222
Conventional						
Caseworkers	1,598	608	4,284	.1419	227	1,371
CW Supervisors	215	193	571	.3380	73	142
Financial						
Monthly Reporting	856	831	2,292	.3626	310	546
Conventional	895	842	2,373	.3552	318	577

[a]Excluding allowed lunch and break.

Table B-7

AFDC/FOOD STAMP CASELOADS - SEDO

	JANUARY-FEBRUARY	APRIL-MAY	JULY-AUGUST	AVERAGE
Experimental	2,327	2,356	2,321	2,335
Variant	2,311	2,293	2,214	2,273
Conventional	2,335	2,238	2,284	2,286
Overall average				2,298

APPENDIX C

ADJUSTMENT FOR LUNCH TIME

APPENDIX C

ADJUSTMENT FOR LUNCH TIME

Employees in the Illinois Department of Public Aid are paid on the basis of a 7.5 hour workday, of which thirty minutes are allowed breaktime--one fifteen minute break in the morning and one in the afternoon. IDPA employees are allowed a sixty-minute unpaid lunch hour. At Southeast District Office, the lunch hour is not formally scheduled at a specific time; however, the majority of SEDO employees take lunch between noon and 1:00 PM.

Decisions on sample size were based on a 7.5 hour workday. As a result and also to schedule lunch hours for the observers, each day one hour between 11:30 AM and 1:30 PM was randomly scheduled as "lunch" for the observer, and no random moment surveys were conducted. The result of this scheduling led to undersampling of workers' activities between noon and 1:00 PM. Observations occurring during that hour were weighted to adjust for this underestimation.

To determine an appropriate weight, we assumed that in any hour approximately 13 percent of all trip times (random moment tours of the office) would begin. This calculation was based on the distribution of trips during the January/February observation period.

The total number of trips for the observation period is 380.

	Number	Proportion
Trips between 8:30 AM and 11:50 AM	177	.466
Trips between 1:00 PM and 4:50 PM	185	.487
Trips between noon and 12:50 PM	18	.047
Total	380	

Expected frequency of trips

1 hour/7.5 hours = .133

To determine the appropriate weight, the expected trip frequency was divided by the observed trip frequency between noon and 12:50 PM.

.133/.047 = 2.8

Thus, the observation counts for each worker class in each treatment group between noon and 12:50 PM were multiplied by 2.8 to adjust for undersampling during this time period.

As an example, we will use caseworkers in the experimental group during the January/February observation period. The actual observations which occurred between noon and 1:00 PM are presented in Table C-1. Adjusted observations are also presented in Table C-1. Thus, the total number of observations for caseworkers for this measurement period is increased by 552, raising the total number of observations to 4,732. Allocation of the increase in observations to individual activities should be clear from the table.

Lunch hour observations for all worker-classes in each demonstration group by measurement period were weighted according to these procedures. Tables C-2, C-3, and C-4 display these data.

Table C-1

ACTUAL AND ADJUSTED "LUNCH TIME" OBSERVATIONS
FOR CASEWORKERS IN THE EXPERIMENTAL TREATMENT GROUP

ACTIVITY	ACTUAL NUMBER OF OBSERVATIONS	ADJUSTED NUMBER OF OBSERVATIONS (COLUMN 1 x 2.8)
At-Desk Forms Work		
Monthly Report Processing		
Daily Messages	2	6
Other Monthly Reporting	2	6
AFDC/FS Case Review	2	6
Interim Actions		
Address Change	1	3
Data Change	2	6
Benefit Changes	1	3
Lost/Stolen	1	3
Subtotal	11	33
Non-Forms Work		
Filing	4	10
Telephone - work	3	8
Conversation - work	2	6
Inquiry - Other	5	14
General Activity - Other	3	8
Other Non-Forms Work	4	10
Subtotal	21	56
Research	1	3

(continued)

Table C-1
(continued)

ACTIVITY	ACTUAL NUMBER OF OBSERVATIONS	ADJUSTED NUMBER OF OBSERVATIONS (COLUMN 1 x 2.8)
Non-Work		
Conversation - Non-Work	1	3
Lunch/Break	125	350
Delay/Waiting	1	3
Subtotal	127	356
Personnel Count		
Leave of Absence	12	34
Time Off Without Pay	1	3
Personal/Business Leave	6	17
Sick Leave	7	19
Vacant Position	10	28
Subtotal	36	101
Missing	1	3
TOTAL	197	552

Table C-2

ACTUAL AND WEIGHTED "LUNCH TIME" OBSERVATIONS
BY WORKER CLASS BY TREATMENT GROUP
(JANUARY/FEBRUARY)

	ACTUAL "LUNCH TIME" OBSERVATIONS	WEIGHTED "LUNCH TIME" OBSERVATIONS	ADJUSTED TOTAL OBSERVATIONS
Experimental			
Caseworkers	197	552	4,732
CW Supervisors	37	104	864
Unit Clerks	36	101	861
Variant			
Caseworkers	215	602	5,162
CW Supervisors	35	98	858
Unit Clerks	36	101	861
Conventional			
Caseworkers	234	655	5,595
CW Supervisors	35	98	858
Financial			
Monthly Reporting	126	353	3,013
Conventional	162	454	3,874

NOTE: Totals include observations recording personnel categories (e.g., sick leave, vacation).

Table C-3

ACTUAL AND WEIGHTED "LUNCH TIME" OBSERVATIONS
BY WORKER CLASS BY TREATMENT GROUP
(APRIL/MAY)

	ACTUAL "LUNCH TIME" OBSERVATIONS	WEIGHTED "LUNCH TIME" OBSERVATIONS	ADJUSTED TOTAL OBSERVATIONS
Experimental			
Caseworkers	209	585	4,785
CW Supervisors	42	118	958
Unit Clerks	42	118	958
Variant			
Caseworkers	252	706	5,746
CW Supervisors	42	118	958
Unit Clerks	42	118	958
Conventional			
Caseworkers	273	764	6,224
CW Supervisors	41	115	955
Financial			
Monthly Reporting	147	412	3,352
Conventional	168	470	3,830

NOTE: Totals include observations recording personnel categories (e.g., sick leave, vacation).

Table C-4

ACTUAL AND WEIGHTED "LUNCH TIME" OBSERVATIONS
BY WORKER CLASS BY TREATMENT GROUP
(JULY/AUGUST)

	ACTUAL "LUNCH TIME" OBSERVATIONS	WEIGHTED "LUNCH TIME" OBSERVATIONS	ADJUSTED TOTAL OBSERVATIONS
Experimental			
Caseworkers	241	675	5,495
CW Supervisors	41	115	955
Unit Clerks	20	56	476
Variant			
Caseworkers	241	675	5,495
CW Supervisors	31	87	707
Unit Clerks	42	118	958
Conventional			
Caseworkers	285	798	6,558
CW Supervisors	42	118	958
Financial			
Monthly Reporting	147	413	3,353
Conventional	139	390	3,330

NOTE: Totals include observations recording personnel categories (e.g., sick leave, vacation).

APPENDIX D

ALLOCATION ALGORITHMS

APPENDIX D

ALLOCATION ALGORITHMS

Work and Non-Work Observations

The total number of observations recorded during random moment surveys includes a combined count of work and non-work observations. One of the objectives in this analysis is estimating the total number of work observations. Consequently, we must identify the total number of non-work observations and exclude this count from the total number of observations.

Non-work observations can be divided into three categories:

1. Direct measures of non-work. This category includes "lunch/breaks" "delay/waiting," and "other non-work" (e.g., reading a newspaper).

2. Allocative measures of non-work. Measurement activities in this category include "telephone--unknown," "conversation--unknown," and "in-transit."

3. Missing observations attributed to breaks, lunches, late arrivals, and early departures.

The total number of non-work observations is defined as the sum of the direct, allocative, and missing non-work counts. Procedures for calculating a count of non-work observations can be more simply explained by example. For instance, for caseworkers in the experimental group in January/February, the total observation count of 4,732. (See Appendix C.) The first adjustment to this total is the subtraction of personnel count observations. (See Table D-1.) As these observations are excluded, so are the corresponding hours attributed to these personnel categories. (See Appendix B.)

$$4,732 - 780 = 3,952$$

Of these 3,952 observations, 2,971 were directly observed as work while 907 were observed as non-work. (Actual non-work observations appear in Table D-2.) Thus, we have:

Table D-1

PERSONNEL COUNT OBSERVATIONS FOR CASEWORKERS
IN THE EXPERIMENTAL TREATMENT GROUP
(JANUARY/FEBRUARY)

ACTIVITY	ADJUSTED TOTAL NUMBER OF OBSERVATIONS
Leave of absence	174
Time off without pay	63
Temporarily assigned to a non-observed task	4
Personal leave/business leave	167
Vacation	33
Sick leave	211
Vacant position	128
TOTAL	780

Table D-2

ACTUAL NON-WORK OBSERVATIONS FOR CASEWORKERS
IN THE EXPERIMENTAL TREATMENT GROUP
(JANUARY/FEBRUARY)

ACTIVITY	NUMBER OF OBSERVATIONS
Telephone	24
Conversation	95
Lunch/break	632
Delay/waiting	21
Other non-work	135
TOTAL	907

	Number	Ratio
Work observations	2,971	.7661
Non-work observations	907	.2339
	3,878	
With,		
In-transit observations	11	
Missing observations	63	
TOTAL	3,952	

For this worker-class during this observation period, no observations were recorded as "unknown."[1]

In-transit observations were allocated according to the overall ratio of work/non-work observations.

.7661 (11) = 8 in-transit observations allocated to Work

.2339 (11) = 3 in-transit observations allocated to Non-Work

Missing observations were allocated in a similar manner after one initial adjustment. A review of missing observations by worker class by trip start time indicated that for all worker groups during both measurement periods, there was a clear pattern of missing observations between 8:30 and 9:00 AM, with the highest number recorded at 8:30 tapering off to 9:00. It

---

[1] In general, for the two measurement periods, there were very few "unknown" observations. When they occurred, they were allocated in the following manner. Assume 49 "Telephone-Unknown" allocations for caseworkers in the experimental group in April/May. Further, assume:

	Number	Ratio
Telephone Work	312	.8342
Telephone Non-Work	62	.1658

Thus,

Telephone Work .8342 (49) = 41
Telephone Non-Work .1658 (49) = 8

Thus, new totals are:

Telephone Work 312 + 41 = 353
Telephone Non-Work 62 + 8 = 70

seems reasonable to assume that the majority of these missing observations can be considered as late arrivals. Thus, all missing observations recorded on trips beginning at 8:30, 8:40 and 8:50 AM are assigned to non-work. In the example under consideration, 35 of the 63 missing observations occurred during this time period, leaving 28 missing observations to be allocated.[1]

.7661 (28) = 22 missing observations allocated to Work

.2339 (28) = 6 missing observations allocated to Non-Work

Total new counts of work and non-work observations for experiment caseworkers are shown in Table D-3. Total work and non-work observations, excluding counts in personnel categories, are posted in Table D-4 for all worker-classes by treatment group by measurement period.

Allocation of Non-Desk Work Activities

There are seven non-desk work activities which involve direct case-work--other non-forms work, filing, telephone, conversations, home visits (conventional reporting system only), inquiry, and interview. In addition, in-transit and missing observations must be allocated. Also, the at-desk-forms category, AFDC/FS Case Review, required adjustment. Observation procedures for all of these categories did not provide for task-specific classifications, therefore, it is necessary to allocate the observed totals among the task types. The allocations discussed here are based on counts in which work/non-work allocations have been made. Within work subtotals, observed frequencies must be allocated to monthly reporting tasks or redetermination/recertification tasks, interim case maintenance tasks, and non-case related activities.

The objective of all these allocations is to arrive at a count of total food stamp related observations and to apportion this total to specific tasks.

[1] There were no similar patterns for missing observations recorded between 10:00 and 10:30 AM or between 3:00 and 3:30 PM--the normal break times, or between 4:30 and 5:00 PM when the office closes. Nor were there patterns discernible preceding or succeeding the generally observed noon to 1:00 PM lunch hour. Hence, our decision to allocate the remaining missing observations on the observed work/non-work ratio.

Table D-3

TOTAL NUMBER OF WORK AND NON-WORK OBSERVATIONS
FOR CASEWORKERS IN THE EXPERIMENTAL GROUP
(JANUARY/FEBRUARY)

	OBSERVATIONS	
	WORK	NON-WORK
Observed	2,971	907
Allocated		
In-transit	8	3
Missing	22	6
AM-Late		35
TOTALS	3,001	951
	3,952	
Ratio	.7594	.2406

Table D-4

TOTAL WORK AND NON-WORK OBSERVATIONS FOR EACH WORKER CLASS BY TREATMENT GROUP BY MEASUREMENT PERIOD

	JANUARY/FEBRUARY		APRIL/MAY		JULY/AUGUST	
	TOTAL WORK OBSERVATIONS	TOTAL NON-WORK OBSERVATIONS	TOTAL WORK OBSERVATIONS	TOTAL NON-WORK OBSERVATIONS	TOTAL WORK OBSERVATIONS	TOTAL NON-WORK OBSERVATIONS
Experimental						
Caseworkers	3,001	951	2,963	1,212	3,261	916
Caseworker supervisors	527	220	622	279	429	122
Unit clerks	543	162	669	235	288	97
Variant						
Caseworkers	3,242	1,043	3,177	1,104	3,030	937
Caseworker supervisors	694	130	425	80	422	78
Unit clerks	539	200	556	317	604	263
Conventional						
Caseworkers	3,872	1,248	3,671	1,390	3,676	1,526
Caseworker supervisors	498	211	522	328	378	315
Financial						
Monthly reporting	1,595	1,142	1,790	1,196	1,461	1,322
Conventional	1,662	1,063	1,718	1,095	1,531	1,351

NOTE: Total observations exclude observations of personnel categories.

The first step is obtaining a count of task-specific observations for at-desk forms work. Column 1 of Table D-5 shows total counts of observations by specific task for caseworkers in the experimental treatment group. As can be seen from the observer checklist (Exhibit B-1 in Appendix B), for some tasks, observers recorded the relevant program if that information was available. Column 2 of Table D-5 records the observations identified as related to the Food Stamp Program. As discussed in the text of this report, 50 percent of all observations coded as AFDC/FS were allocated to the Food Stamp Program. Column 3 shows these numbers, and Column 4 shows total adjusted counts of observations for the Food Stamp Program.

In this appendix, allocation algorithms are discussed in the order they are applied in this analysis. Several categories of observations apply only to tasks which are defined as directly related to case activities. These categories include inquiries, interviews, AFDC/FS case review, home visits, and other non-forms work. The remaining categories (filing, telephone, conversation, in-transit, and missing) involve non-case tasks as well as direct case activities.

Column 5 indicates the percent of total task observations represented by each subtask. For example, the Daily Messages subtask accounts for 82 percent of the total food stamp observations (93/114 = .8158) under monthly reporting.

Allocation of each of the non-desk work activities is discussed below. Observations for each activity were adjusted to apply only to the Food Stamp Program, that is, we multiplied the total observations for the task by the appropriate percentage from Table 2-2 to arrive at the food stamp total. In this example, it is 43 percent.

Rows and columns of observations are subtotaled whenever other observation categories must be allocated among major tasks.

Inquiry

For the two monthly reporting units, observations were recorded in two inquiry cateogries: Inquiry-MSR and Inquiry-Other. We assumed that all MSR inquiries were related to monthly reporting tasks and that all other inquiries were related to interim tasks. As can be seen in Table D-6, we then allocated inquiry observations across the subtasks using the at-desk

Table D-5

ALLOCATION OF OBSERVATIONS OF CASEWORKERS IN THE EXPERIMENTAL TREATMENT GROUP TO THE FOOD STAMP PROGRAM (JANUARY/FEBRUARY)

	TOTAL OBSER-VATIONS	FOOD STAMP ONLY	50 PERCENT ALLOCATION OF AFDC/FS OBSERVATIONS[a]	ADJUSTED TOTAL FOOD STAMP OBSERVATIONS	PERCENT OF TOTAL OBSERVATIONS
MR					
Budgeting	27	11	6	17	.1214
WIN/JS	11	1	-	1	.0071
Daily Messages	232	-	116	116	.8285
Other MR	99	2	4	6	.0428
SUBTOTAL	369	14	126	140	
Interim					
Address Change	55	-	28	28	.1056
Data Change	68	-	34	34	.1283
Benefit Change	78	36	12	48	.1811
Supplement	140	56	11	67	.2528
Lost/Stolen	29	10	1	11	.0415
Void and Rewrite	56	14	10	24	.0905
Add a Person	83	-	42	42	.1584
Appeals/Hearings	14	3	3	6	.0226
Corrective Action	16	2	1	3	.0113
Other	22	-	2	2	.0075
SUBTOTAL	561	121	144	265	
TOTAL	930	135	210	345	

[a]See Chapter Two.

Table D-6

ALLOCATED OBSERVATIONS--EXPERIMENTAL TREATMENT GROUP (JANUARY/FEBRUARY)

	IN-QUIRY MSR	AE INTER-VIEW	CASE RE-VIEW	HOME VISIT[a]	SUB-TOTAL[b]	IN-TER-VIEW	OTHER NON-FORMS	SUB-TOTAL	FIL-ING	TELE-PHONE	CON-VERSA-TION	IN-TRAN-SIT	MIS-SING	TOTAL
Monthly Reporting														
School Verification	0	0	NA	NA	0	0	0	0	0	0	0	0	0	0
Budgeting	11	0	NA	NA	28	4	6	38	5	10	6	0	1	60
WIN/Job Service	1	0	NA	NA	2	0	1	3	1	1	1	0	0	6
Daily Messages	76	3	NA	NA	195	31	42	268	32	68	43	1	2	414
Other Monthly Reporting	4	0	NA	NA	10	2	2	14	1	4	2	0	0	21
TOTAL	92	3			235	37	51	323	39	83	52	1	3	501
	INQUIRY OTHER													
Interim														
Address Change	9	NA	4	NA	41	1	9	51	6	3	8	0	0	68
Data Change	11	NA	5	NA	50	2	11	63	7	3	10	0	1	84
Benefit Change	15	NA	7	NA	70	3	16	89	11	6	15	1	1	123
Supplement	22	NA	10	NA	99	4	22	125	15	7	20	1	2	170
Lost/Stolen	4	NA	1	NA	16	1	3	20	3	1	3	0	0	27
Void and Rewrite	8	NA	4	NA	36	2	8	46	5	3	7	0	0	61
Add a Person	14	NA	6	NA	62	2	13	77	10	4	12	0	1	104
Appeals/Hearings	2	NA	1	NA	9	1	2	12	1	1	2	0	0	16
Corrective Action	1	NA	1	NA	5	1	1	7	1	1	1	0	0	10
Other	1	NA	1	NA	4	1	1	6	1	1	1	0	0	9
TOTAL	87		40		392	18	86	496	60	30	79	2	5	672

[a] Home visit applies only to the conventional treatment group.
[b] Column 4 of Table B-5 plus columns 1, 2, and 3 of this table.

forms proportions from Table D-5. Observations in this category were allocated somewhat differently for the conventional treatment group. This allocation is discussed later in this appendix.

Interviews

Observations of interviews in the variant and conventional treatment groups were allocated in the same manner described above for allocation of inquiry observations. This approach was feasible for these two groups because observers recorded interviews for these treatment groups as: Interview-Annual Eligibility (which we allocated to Monthly Reporting tasks) or Redetermination/Recertification and Interview-Other. Observations in the latter category were presumed to relate to interim tasks. Then, weighted proportions from interview logs were applied to distribute observations across the subtasks. (See Appendix N.) These procedures were also followed for the experimental treatment group during the January/February measurement period because interviews related to monthly reporting were coded as annual eligibility interviews. However, for the experimental and variant treatment groups in other measurement periods, data from the interview logs were more complete, and we were able to utilize that information for allocating interviews. These procedures are explained in Appendix N.

AFDC/FS Case Review

Based on the Illinois Monthly Reporting Project's instructions to observers, we assigned all case review observations to interim tasks and then allocated them across subtasks using the at-desk forms proportions. Column 3 of Table D-6 displays this allocation. This procedure was applied to all treatment groups.

Home Visits

This observation category applies only to the conventional treatment group. Conventional caseworkers are required to conduct annual home visits for all AFDC clients. On field days, caseworkers spend the entire workday away from the office. Consequently, in every round of observations, those

workers are recorded as engaged in the home visit work activity. Because workers are entitled to a one-hour lunch period and two 15-minute breaks, it is assumed that they took these allowed breaks in the field. Thus, raw observations of home visits must be adjusted downwards to reflect this non-work time.

To adjust for lunch and break time on field days, it was assumed that all observations labeled home visit which occurred between noon and 1:00 PM were actually lunch observations. Further, we assigned all home visit observations occurring between 10:00 and 10:30 AM and 3:00 and 3:30 PM to break-time. During our analysis of total observations with regard to non-work, close to 100 percent of lunch and break observations occurred during these time periods. Table D-7 displays these adjustments. Home visit allocations across subtasks are based on the at-desk-forms proportions for that measurement period. (See tables in Appendix E.)

Other Non-Forms

This activity is defined in the work measurement observer handbook as tasks which are case-specific. Thus, it is necessary to allocate these observations to the various case tasks.

Column 4 of Table D-6 shows 235 observations of monthly reporting tasks and 392 observations of interim work activities, thus:

235 + 392 = 627
235/627 = .3748
392/627 = .6252

The total of Food Stamp observations for other non-forms is 137, so we have:

.3748 (137) = 51 monthly reporting
.6252 (137) = 86 interim

These observations are then allocated across subtasks by applying the at-desk forms proportions. See Column 7 of Table D-6.

Table D-7

ADJUSTMENTS TO HOME VISIT OBSERVATIONS

	JANUARY/FEBRUARY	APRIL/MAY	JULY/AUGUST
Total Raw Observations	1,078	1,504	1,366
10:00 to 10:30 AM	77	115	88
Noon to 1:00 PM	54	78	69
3:00 to 3:30 PM	84	110	111
Subtotal	215	303	268
Adjusted Total of Raw Observations	863	1,201	1,098
Home Visits Allocated to Food Stamps[a]	319 (x.37)	436 (x.26)	516 (x.47)

[a]Percentages from Table 2-2.

Filing, Telephone, Conversation, In-Transit, and Missing

The first step in the computations requires identifying the numbers of calls related to case and non-case activities. For the experimental and variant groups, observations of filing, telephone, conversation, in-transit, and missing may be classified among three categories: (1) related to monthly reporting activities; (2) related to interim activities; or (3) related to non-case work.[1] Obviously, for the conventional group, redetermination/recertification replaces the monthly reporting category. In order to determine the share of observations allocated to each category, the relative frequency of all work observations was calculated. As can be seen from Table D-6, there are 323 observations of monthly reporting activities and 496 observations of interim activities. Table L-1 shows 69 actual observations of non-case activities, thus:

323 + 496 + 69 = 888

Monthly Reporting	323/888 = .3637
Interim	496/888 = .5586
Non-case	69/888 = .0777

These proportions are applied to food stamp observations of the filing, conversation, in-transit, and missing categories to arrive at total allocations. For example, food stamp observations of conversations equal 142, thus:

Monthly Reporting	.3637 (142) =	52
Interim	.5586 (142) =	79
Non-case	.0777 (142) =	11
		142

[1] This classification assumes that work/non-work allocations have already occurred.

At-desk forms frequencies are applied to allocate these observations across sub-tasks. See Table D-6.

Allocation of telephone observations is slightly different. An initial allocation for non-case activity follows the same procedure as above. For example, food stamp observations of telephone calls for the experimental group in January/February equal 123, thus:

Non-case .0777 (123) = 10

leaving 113 observations to be allocated between monthly reporting and interim tasks. This allocation is based on average weighted frequencies derived from telephone logs. (See Appendix N.) In this instance, the weighted frequencies are:

Monthly Reporting	.7328 (113) = 83
Interim	.2672 (113) = 30

These observations are then allocated to subtasks using the frequencies observed in the at-desk forms categories.

Other Allocations

A few observation categories were infrequently needed to record caseworker activity. Other work/out-of-office is one such category. When observations were recorded for this activity, observations were allocated in the same manner described for filing and conversation.

At least for one group, observations were recorded under the edit, mail, verification activity which is basically a clerical task. These observations were assigned to the monthly reporting task because they involve monthly report forms.

APPENDIX E

TABLES OF CALCULATIONS FOR DERIVING CASE MONTH COST ESTIMATES

Disaggregations of caseworker observations by task in the experimental treatment group for January/February appear in Appendix B.

Table E-1

CALCULATION OF CASEWORKER COSTS
EXPERIMENTAL TREATMENT GROUP, JANUARY/FEBRUARY

	TOTAL OBSERVATIONS PER TASK	PROPORTION (COLUMN 1 + TOTAL OBSERVATIONS)[a]	TOTAL HOURS PER TASK[b]	TOTAL COST PER TASK[c]	COST PER CASE MONTH[d]
Monthly Reporting	501	.167	189	1,581	.679
Interim					
Address change, data change, add-a-person	256	.085	97	808	.347
Benefit change	123	.041	47	388	.167
Supplement	170	.057	64	536	.231
Lost/stolen	27	.009	10	85	.037
Void and rewrite	61	.020	23	192	.083
Appeals/hearings	16	.005	6	50	.022
Corrective action	10	.003	4	32	.014
Other interim	9	.003	3	28	.012
Non-case	99	.033	37	309	.133

[a]Total work observations: 3,001.

[b]Total work hours: 1,134.

[c]Average weighted wage rate: $8.35.

[d]Total food stamp case months: 2,327.

Table E-2

CALCULATIONS OF SUPERVISOR AND CLERK COSTS
EXPERIMENTAL TREATMENT GROUP, JANUARY/FEBRUARY

	TOTAL OBSERVATIONS PER TASK	PROPORTION (COLUMN 1 + TOTAL OBSERVATIONS)[a]	TOTAL HOURS PER TASK[b]	TOTAL COST PER TASK[c]	COST PER CASE MONTH[d]
Supervisors					
Monthly reporting	78	.148	29	306	.122
Interim	29	.055	11	116	.058
Non-case	117	.222	43	454	.195
Unit Clerks					
Monthly reporting	155	.286	59	310	.133
Interim	35	.065	13	68	.029
Non-case	41	.076	16	84	.036

[a]Total work observations: 527--supervisors; 543--unit clerks.

[b]Total work hours: 195--supervisors; 206--unit clerks.

[c]Average weighted wage rate: $10.56--supervisors; $5.26--unit clerks.

[d]Total food stamp case months: 2,327.

Table E-3

CALCULATIONS OF ADMINISTRATIVE COSTS BY WORKER CLASS
EXPERIMENTAL TREATMENT GROUP, JANUARY/FEBRUARY

	COST PER CASE MONTH	NON-WORK COSTS[a]	SUBTOTAL	TOTAL FRINGE BENEFIT COSTS[b]	TOTAL COSTS PER CASE MONTH
Caseworkers					
Monthly reporting	.679	.074	.753	.350	1.104
Interim	.911	.098	1.009	.470	1.480
Non-case	.133	.014	.147	.068	.216
Supervisors					
Monthly reporting	.122	.019	.140	.065	.206
Interim	.058	.008	.066	.031	.097
Non-case	.195	.030	.225	.105	.330
Unit Clerks					
Monthly reporting	.133	.021	.154	.072	.226
Interim	.029	.005	.034	.016	.050
Non-case	.036	.006	.042	.019	.061

[a] See Appendix F for average non-work rates.

[b] Fringe benefit rate: .4615.

Table E-4

OBSERVATIONS OF CASEWORKERS IN THE FOOD STAMP PROGRAM
EXPERIMENTAL TREATMENT GROUP, APRIL/MAY

	FOOD STAMPS ONLY	AFDC/ FS .50	AD-JUSTED TOTAL	PROPOR-TION	IN-QUIRY MSR	EDIT MAIL	SUB-TOTAL	IN-TER-VIEW	OTHER NON-FORMS	TOTAL	FIL-ING	TELE-PHONE	CON-VER-SA-TION	OTHER-OUT-OF-OFFICE	TRAN-SIT	MIS-SING	TOTAL
Monthly Reporting																	
School verification	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Budgeting	63	0	63	.3705	40	1	104	11	7	122	14	28	20	0	3	6	193
WIN/job service	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Daily messages	0	104	104	.6117	65	1	170	18	13	201	22	45	32	0	4	10	314
Other MR	3	0	3	.0176	2	0	5	1	1	7	1	2	1	0	0	1	12
Total	66	104	170		107	2	279	30	21	330	37	75	53	0	7	17	519
Interim					IN-QUIRY OTHER	CASE REVIEW											
Address Δ	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Data Δ	1	1	2	.0178	1	1	4	1	1	6	1	1	2	0	0	0	10
Benefit Δ	14	1	15	.1339	8	4	27	1	1	29	3	3	4	0	1	2	42
Supplement	8	0	8	.0714	4	2	14	1	1	16	2	2	2	0	0	1	23
Lost/stolen	12	0	12	.1071	6	2	20	1	1	22	2	2	4	0	0	2	33
Void and rewrite	3	0	3	.0267	2	1	6	1	1	8	1	1	1	0	0	0	11
Add-a-person	2	3	5	.0446	2	1	8	1	1	10	1	1	1	0	0	0	13
Appeals/hearings	1	1	2	.0178	1	1	4	1	1	6	1	1	1	0	0	0	9
Corrective action	27	1	28	.2500	15	6	49	4	3	56	6	7	9	0	1	3	82
Other interim	36	1	37	.3303	19	9	65	5	4	74	8	9	12	0	2	4	109
Total	104	8	112		58	27	197	16	14	227	25	27	36	0	5	12	332

Table E-5

CALCULATION OF CASEWORKER COSTS
EXPERIMENTAL TREATMENT GROUP, APRIL/MAY

	TOTAL OBSERVATIONS PER TASK	PROPORTION (COLUMN 1 + TOTAL OBSERVATIONS)[a]	TOTAL HOURS PER TASK[b]	TOTAL COST PER TASK[c]	COST PER CASE MONTH[d]
Monthly Reporting	519	.175	194	1,616	.686
Interim					
Address change, data change, add-a-person	23	.008	9	72	.030
Benefit change	42	.014	16	131	.056
Supplement	23	.008	9	72	.030
Lost/stolen	33	.011	12	103	.044
Void and rewrite	11	.004	4	34	.015
Appeals/hearings	9	.003	3	28	.012
Corrective action	82	.028	31	255	.108
Other interim	109	.037	41	339	.144
Non-case	387	.131	144	1,202	.510

[a]Total work observations: 2,963.

[b]Total work hours: 1,105.

[c]Average weighted wage rate: $8.35.

[d]Total food stamp case months: 2,356.

Table E-6

CALCULATIONS OF SUPERVISOR AND CLERK COSTS
EXPERIMENTAL TREATMENT GROUP, APRIL/MAY

	TOTAL OBSERVATIONS PER TASK	PROPORTION (COLUMN 1 + TOTAL OBSERVATIONS)[a]	TOTAL HOURS PER TASK[b]	TOTAL COST PER TASK[c]	COST PER CASE MONTH[d]
Supervisors					
Monthly reporting	73	.117	27	285	.123
Interim	46	.074	17	180	.085
Non-case	136	.219	50	528	.224
Unit Clerks					
Monthly reporting	142	.212	53	279	.118
Interim	54	.081	20	105	.045
Non-case	79	.118	30	158	.067

[a]Total work observations: 622--supervisors; 669--unit clerks.

[b]Total work hours: 229--supervisors; 250--unit clerks.

[c]Average weighted wage rate: $10.56--supervisors; $5.26--unit clerks.

[d]Total food stamp case months: 2,356.

Table E-7

CALCULATIONS OF ADMINISTRATIVE COSTS BY WORKER CLASS
EXPERIMENTAL TREATMENT GROUP, APRIL/MAY

	COST PER CASE MONTH	NON-WORK COSTS[a]	SUBTOTAL	TOTAL FRINGE BENEFIT COSTS[b]	TOTAL COSTS PER CASE MONTH
Caseworkers					
Monthly reporting	.686	.075	.761	.351	1.112
Interim	.439	.048	.487	.224	.711
Non-case	.510	.056	.566	.261	.827
Supervisors					
Monthly reporting	.123	.019	.142	.066	.208
Interim	.085	.012	.097	.044	.141
Non-case	.224	.035	.259	.119	.378
Unit Clerks					
Monthly reporting	.118	.018	.137	.063	.200
Interim	.045	.007	.052	.024	.075
Non-case	.067	.010	.077	.036	.113

[a] See Appendix F for average non-work rates.

[b] Fringe benefit rate: .4615.

Table E-8

OBSERVATIONS OF CASEWORKERS IN THE FOOD STAMP PROGRAM
EXPERIMENTAL TREATMENT GROUP, JULY/AUGUST

	FOOD STAMPS ONLY	AFDC/ FS .50	AD-JUSTED TOTAL	PROPOR-TION	IN-QUIRY MSR	EDIT MAIL	SUB-TOTAL	IN-TER-VIEW	OTHER NON-FORMS	TOTAL	FIL-ING	TELE-PHONE	CON-VER-SA-TION	OTHER-OUT-OF-OFFICE	TRAN-SIT	MIS-SING	TOTAL
Monthly Reporting																	
School verification	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Budgeting	16	1	17	.1049	11	0	28	5	1	34	1	11	6	0	1	3	56
WIN/job service	0	1	1	.0061	1	0	2	0	0	2	0	1	0	0	0	0	3
Daily messages	0	43	43	.2654	28	0	71	10	2	83	2	27	16	1	2	8	139
Other MR	90	11	101	.6234	65	1	167	24	5	196	5	65	37	1	3	19	326
Total	106	56	162		105	1	268	39	8	315	8	104	59	2	6	30	524
Interim					IN-QUIRY OTHER	CASE REVIEW											
Address Δ	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Data Δ	1	28	29	.4915	43	0	72	10	2	84	2	18	16	1	2	8	131
Benefit Δ	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Supplement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lost/stolen	6	1	7	.1186	10	0	17	2	0	19	1	5	4	0	1	2	32
Void and rewrite	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Add-a-person	2	4	6	.1016	9	0	15	2	0	17	0	4	3	0	0	1	25
Appeals/hearings	0	2	2	.0338	3	0	5	1	0	6	0	1	1	0	0	1	9
Corrective action	2	1	3	.0508	5	0	8	1	0	9	0	2	1	0	0	1	13
Other interim	8	4	12	.2033	18	0	30	4	1	35	1	8	7	0	0	3	54
Total	19	40	59		88	0	147	20	3	170	4	38	32	1	3	16	264

Table E-9

CALCULATIONS OF CASEWORKER COSTS
EXPERIMENTAL TREATMENT GROUP, JULY/AUGUST

	TOTAL OBSERVATIONS PER TASK	PROPORTION (COLUMN 1 + TOTAL OBSERVATIONS)[a]	TOTAL HOURS PER TASK[b]	TOTAL COST PER TASK[c]	COST PER CASE MONTH[d]
Monthly Reporting	524	.161	194	1,622	.699
Interim					
Address change, data change, add-a-person	156	.048	58	483	.208
Benefit change	0	0	0	0	0
Supplement	0	0	0	0	0
Lost/stolen	32	.010	12	99	.043
Void and rewrite	0	0	0	0	0
Appeals/hearings	9	.003	3	28	.012
Corrective action	13	.004	5	40	.017
Other interim	54	.017	20	167	.072
Non-case	939	.288	348	2,906	1.252

[a] Total work observations: 3,261.

[b] Total work hours: 1,209.

[c] Average weighted wage rate: $8.35.

[d] Total food stamp case months: 2,321.

Table E-10

CALCULATIONS OF SUPERVISOR AND UNIT CLERK COSTS
EXPERIMENTAL TREATMENT GROUP, JULY/AUGUST

	TOTAL OBSERVATIONS PER TASK	PROPORTION (COLUMN 1 + TOTAL OBSERVATIONS)[a]	TOTAL HOURS PER TASK[b]	TOTAL COST PER TASK[c]	COST PER CASE MONTH[d]
Supervisors					
Monthly reporting	12	.028	5	53	.019
Interim	30	.070	11	116	.044
Non-case	183	.427	69	729	.314
Unit Clerks					
Monthly reporting	137	.476	51	268	.115
Interim	0	0	0	0	0
Non-case	16	.056	6	32	.014

[a]Total work observations: 429--supervisors; 288--unit clerks.

[b]Total work hours: 161--supervisors; 108--unit clerks.

[c]Average weighted wage rate: $10.56--supervisors; $5.26--unit clerks.

[d]Total food stamp case months: 2,321.

Table E-11

CALCULATIONS OF ADMINISTRATIVE COSTS BY WORKER CLASS
EXPERIMENTAL TREATMENT GROUP, JULY/AUGUST

	COST PER CASE MONTH	NON-WORK COSTS[a]	SUBTOTAL	TOTAL FRINGE BENEFIT COSTS[b]	TOTAL COSTS PER CASE MONTH
Caseworkers					
Monthly reporting	.699	.076	.775	.358	1.133
Interim	.352	.039	.391	.018	.571
Non-case	1.252	.136	1.388	.641	2.029
Supervisors					
Monthly reporting	.019	.003	.021	.010	.031
Interim	.044	.006	.050	.024	.074
Non-case	.314	.048	.362	.167	.530
Unit Clerks					
Monthly reporting	.115	.018	.133	.062	.195
Interim	0	0	0	0	0
Non-case	.014	.002	.016	.007	.023

[a]See Appendix F for average non-work rates.

[b]Fringe benefit rate: .4615.

Table E-12

ADMINISTRATIVE COSTS BY WORKER CLASS BY MEASUREMENT PERIOD
EXPERIMENTAL TREATMENT GROUP

	CASE-WORKERS	SUPER-VISORS	UNIT CLERKS	FINAN-CIAL	SUB-TOTAL	DATA PRO-CESSING	TOTAL
January-February	2.80	.633	.337	.958	4.73	.40	5.13
Percent of total	55%	12%	7%	19%		8%	
April-May	2.65	.729	.388	1.069	4.84	.40	5.24
Percent of total	51%	14%	7%	20%		8%	
July-August	3.733	.636	.218	1.254	5.84	.40	6.24
Percent of total	60%	10%	3%	20%		6%	

Table E-13

OBSERVATIONS OF CASEWORKERS IN THE FOOD STAMP PROGRAM
VARIANT TREATMENT GROUP, JANUARY/FEBRUARY

	FOOD STAMPS ONLY	AFDC/ FS .50	AD-JUSTED TOTAL	PROPOR-TION	IN-QUIRY MSR		SUB-TOTAL	IN-TER-VIEW	OTHER NON-FORMS	TOTAL	FIL-ING	TELE-PHONE	CON-VER-SA-TION	OTHER-OUT-OF-OFFICE	TRAN-SIT	MIS-SING	TOTAL
Monthly Reporting																	
School verification	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0
Budgeting	58	3	61	.4039	28		89	12	29	130	11	34	22	0	4	8	209
WIN/job service	1	0	1	.0066	1		2	0	0	2	0	1	0	0	0	0	3
Daily messages	0	85	85	.5629	41		126	17	40	183	16	48	31	0	6	12	296
Other MR	4	0	4	.0264	2		6	1	2	9	1	2	2	0	0	1	15
Total	63	88	151		72		223	30	71	324	28	85	55	0	10	21	523
Interim					IN-QUIRY OTHER	CASE REVIEW											
Address Δ	0	12	12	.0983	7	1	20	1	6	27	2	7	5	0	1	2	44
Data Δ	0	28	28	.2295	17	2	47	4	15	66	6	17	11	0	2	4	106
Benefit Δ	45	12	57	.4672	33	5	95	7	30	132	11	35	23	0	4	9	214
Supplement	5	3	8	.0655	5	1	14	1	4	19	2	5	3	0	1	1	31
Lost/stolen	4	1	5	.0409	3	1	9	1	3	13	1	3	2	0	1	1	31
Void and rewrite	3	1	4	.0327	2	0	6	1	2	9	1	2	2	0	0	1	15
Add-a-person	0	3	3	.0245	2	0	5	0	2	7	0	2	1	0	0	0	10
Appeals/hearings	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Corrective action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other interim	5	0	5	.0409	3	1	9	1	3	13	1	3	2	0	0	1	20
Total	62	60	122		72	11	205	16	65	286	24	74	49	0	9	19	461

Table E-14

CALCULATIONS OF CASEWORKER COSTS
VARIANT TREATMENT GROUP, JANUARY/FEBRUARY

	TOTAL OBSERVATIONS PER TASK	PROPORTION (COLUMN 1 + TOTAL OBSERVATIONS)[a]	TOTAL HOURS PER TASK[b]	TOTAL COST PER TASK[c]	COST PER CASE MONTH[d]
Monthly Reporting	523	.161	198	1,654	.716
Interim					
Address change, data change, add-a-person	160	.049	61	506	.219
Benefit change	214	.066	81	677	.293
Supplement	31	.010	12	98	.042
Lost/stolen	21	.006	8	66	.029
Void and rewrite	15	.005	6	47	.021
Appeals/hearings	0	0	0	0	0
Corrective action	0	0	0	0	0
Other interim	20	.006	8	63	.027
Non-case	408	.126	155	1,294	.560

[a] Total work observations: 3,242.

[b] Total work hours: 1,228.

[c] Average weighted wage rate: $8.35.

[d] Total food stamp case months: 2,311.

Table E-15

CALCULATIONS OF SUPERVISOR AND UNIT CLERK COSTS
VARIANT TREATMENT GROUP, JANUARY/FEBRUARY

	TOTAL OBSERVATIONS PER TASK	PROPORTION (COLUMN 1 + TOTAL OBSERVATIONS)[a]	TOTAL HOURS PER TASK[b]	TOTAL COST PER TASK[c]	COST PER CASE MONTH[d]
Supervisors					
Monthly reporting	120	.173	45	475	.210
Interim	72	.104	27	285	.118
Non-case	113	.163	43	454	.197
Unit Clerks					
Monthly reporting	207	.384	76	400	.173
Interim	10	.019	4	21	.009
Non-case	19	.035	7	37	.016

[a]Total work observations: 694--supervisors; 539--unit clerks.

[b]Total work hours: 261--supervisors; 198--unit clerks.

[c]Average weighted wage rate: $10.56--supervisors; $5.26--unit clerks.

[d]Total food stamp case months: 2,311.

Table E-16

CALCULATIONS OF ADMINISTRATIVE COSTS BY WORKER CLASS
VARIANT TREATMENT GROUP, JANUARY/FEBRUARY

	COST PER CASE MONTH	NON-WORK COSTS[a]	SUBTOTAL	TOTAL FRINGE BENEFIT COSTS[b]	TOTAL COSTS PER CASE MONTH
Caseworkers					
Monthly reporting	.716	.078	.794	.366	1.160
Interim	.631	.069	.700	.324	1.022
Non-case	.560	.061	.621	.287	.907
Supervisors					
Monthly reporting	.210	.032	.242	.112	.353
Interim	.118	.019	.137	.063	.200
Non-case	.197	.030	.227	.105	.331
Unit Clerks					
Monthly reporting	.173	.027	.200	.092	.292
Interim	.009	.001	.011	.005	.015
Non-case	.016	.002	.018	.008	.027

[a]See Appendix F for average non-work rates.

[b]Fringe benefit rate: .4615.

Table E-17

OBSERVATIONS OF CASEWORKERS IN THE FOOD STAMP PROGRAM
VARIANT TREATMENT GROUP, APRIL/MAY

	FOOD STAMPS ONLY	AFDC/ FS .50	AD-JUSTED TOTAL	PROPOR-TION	IN-QUIRY MSR	PREPAR-ATION/ INTER-VIEW	SUB-TOTAL	IN-TER-VIEW	OTHER NON-FORMS	TOTAL	FIL-ING	TELE-PHONE	CON-VER-SA-TION	OTHER-OUT-OF-OFFICE	TRAN-SIT	MIS-SING	TOTAL
Monthly Reporting																	
School verification	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Budgeting	4	0	4	.0470	4	1	9	1	1	11	0	2	1	0	0	2	16
WIN/job service	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Daily messages	0	69	69	.8117	66	16	151	13	23	187	5	39	22	0	6	28	287
Other MR	11	1	12	.1412	11	3	26	2	4		1	7	4	0	1	5	50
Total	15	70	85		81	20	186	16	28	230	6	48	27	0	7	35	353
Interim						CASE REVIEW											
Address Δ	0	7	7	.0500	2	1	10	1	2	13	0	2	1	0	1	2	19
Data Δ	0	40	40	.2857	12	4	56	2	8	66	2	12	8	0	2	10	100
Benefit Δ	38	4	42	.3000	13	4	59	2	9	70	2	12	8	0	2	11	105
Supplement	17	2	19	.1357	6	2	27	1	4	32	1	5	4	0	1	5	48
Lost/stolen	5	0	5	.0357	2	1	8	0	1	9	0	2	1	0	0	1	13
Void and rewrite	1	1	2	.0142	1	0	3	0	0	3	0	1	0	0	0	1	5
Add-a-person	3	2	5	.0357	2	0	7	1	1	9	0	2	1	0	0	1	13
Appeals/hearings	1	3	4	.0285	1	0	5	0	1	6	0	1	1	0	0	1	9
Corrective action	4	0	4	.0285	1	0	5	0	1	6	0	1	1	0	0	1	9
Other interim	10	2	12	.0857	4	1	17	1	2	20	1	3	2	0	1	3	30
Total	79	61	140		44	13	197	8	29	234	6	41	27	0	7	36	351

Table E-18

CALCULATION OF CASEWORKER COSTS
VARIANT TREATMENT GROUP, APRIL/MAY

	TOTAL OBSERVATIONS PER TASK	PROPORTION (COLUMN 1 + TOTAL OBSERVATIONS)[a]	TOTAL HOURS PER TASK[b]	TOTAL COST PER TASK[c]	COST PER CASE MONTH[d]
Monthly Reporting	353	.111	131	1,096	.478
Interim					
Address change, data change, add-a-person	132	.042	49	410	.179
Benefit change	105	.033	39	326	.142
Supplement	48	.015	18	149	.065
Lost/stolen	13	.004	5	40	.018
Void and rewrite	5	.002	2	16	.007
Appeals/hearings	9	.003	3	28	.012
Corrective action	9	.003	3	28	.012
Other interim	30	.009	12	93	.041
Non-case	381	.120	142	1,186	.517

[a]Total work observations: 3,177.

[b]Total work hours: 1,181.

[c]Average weighted wage rate: $8.35.

[d]Total food stamp case months: 2,293.

Table E-19

CALCULATIONS OF SUPERVISOR AND UNIT CLERK COSTS
VARIANT TREATMENT GROUP, APRIL/MAY

	TOTAL OBSERVATIONS PER TASK	PROPORTION (COLUMN 1 + TOTAL OBSERVATIONS)[a]	TOTAL HOURS PER TASK[b]	TOTAL COST PER TASK[c]	COST PER CASE MONTH[d]
Supervisors					
Monthly reporting	48	.113	18	190	.085
Interim	17	.040	6	63	.031
Non-case	81	.191	30	317	.138
Unit Clerks					
Monthly reporting	131	.236	49	258	.112
Interim	16	.029	6	32	.014
Non-case	51	.092	19	100	.044

[a]Total work observations: 425--supervisors; 556--unit clerks.

[b]Total work hours: 158--supervisors; 208--unit clerks.

[c]Average weighted wage rate: $10.56--supervisors; $5.26--unit clerks.

[d]Total food stamp case months: 2,293.

Table E-20

CALCULATIONS OF ADMINISTRATIVE COSTS BY WORKER CLASS
VARIANT TREATMENT GROUP, APRIL/MAY

	COST PER CASE MONTH	NON-WORK COSTS[a]	SUBTOTAL	TOTAL FRINGE BENEFIT COSTS[b]	TOTAL COSTS PER CASE MONTH
Caseworkers					
Monthly reporting	.478	.052	.530	.246	.776
Interim	.475	.050	.525	.244	.772
Non-case	.517	.056	.573	.267	.840
Supervisors					
Monthly reporting	.085	.013	.099	.046	.144
Interim	.031	.004	.035	.015	.050
Non-case	.138	.021	.160	.074	.234
Unit Clerks					
Monthly reporting	.112	.017	.130	.060	.190
Interim	.014	.002	.016	.007	.023
Non-case	.044	.007	.051	.023	.074

[a] See Appendix F for average non-work rates.

[b] Fringe benefit rate: .4615.

Table E-21

OBSERVATIONS OF CASEWORKERS IN THE FOOD STAMP PROGRAM
VARIANT TREATMENT GROUP, JULY/AUGUST

	FOOD STAMPS ONLY	AFDC/ FS .50	AD-JUSTED TOTAL	PROPOR-TION	IN-QUIRY MSR		SUB-TOTAL	IN-TER-VIEW	OTHER NON-FORMS	TOTAL	FIL-ING	TELE-PHONE	CON-VER-SA-TION	OTHER-OUT-OF-OFFICE	TRAN-SIT	MIS-SING	TOTAL
Monthly Reporting																	
School verification	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Budgeting	116	4	120	.5381	45	1	166	19	43	228	19	54	29	0	6	20	356
WIN/job service	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Daily messages	1	75	76	.3408	28	1	105	13	27	145	12	34	18	0	4	13	226
Other MR	1	26	27	.1210	10	0	37	5	10	52	4	12	7	0	1	5	81
Total	118	105	223		83	2	308	37	80	425	35	100	54	0	11	38	663
Interim						CASE REVIEW											
Address Δ	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Data Δ	0	24	24	.4137	28	4	56	8	14	78	6	36	10	0	2	7	139
Benefit Δ	1	8	9	.1551	11	2	22	3	6	31	3	13	4	0	1	3	55
Supplement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lost/stolen	5	2	7	.1206	8	1	16	2	4	22	2	10	2	0	1	2	39
Void and rewrite	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Add-a-person	0	5	5	.0862	6	1	12	2	4	22	1	8	2	0	0	1	29
Appeals/hearings	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Corrective action	1	3	4	.0689	5	1	10	1	3	14	1	6	2	0	0	1	24
Other interim	5	4	9	.1551	10	2	21	3	6	30	3	13	4	0	1	3	54
Total	12	46	58		68	11	137	19	36	192	16	86	24	0	5	17	340

Table E-22

CALCULATIONS OF CASEWORKER COSTS
VARIANT TREATMENT GROUP, JULY/AUGUST

	TOTAL OBSERVATIONS PER TASK	PROPORTION (COLUMN 1 + TOTAL OBSERVATIONS)[a]	TOTAL HOURS PER TASK[b]	TOTAL COST PER TASK[c]	COST PER CASE MONTH[d]
Monthly Reporting	663	.219	246	2,052	.927
Interim					
Address change, data change, add-a-person	168	.055	62	520	.235
Benefit change	55	.018	20	170	.077
Supplement	0	0	0	0	0
Lost/stolen	39	.013	15	121	.055
Void and rewrite	0	0	0	0	0
Appeals/hearings	0	0	0	0	0
Corrective action	24	.008	9	74	.034
Other interim	54	.018	20	167	.075
Non-case	628	.207	233	1,946	.879

[a]Total work observations: 3,030.

[b]Total work hours: 1,123.

[c]Average weighted wage rate: $8.35.

[d]Total food stamp case months: 2,214.

Table E-23

CALCULATIONS OF SUPERVISOR AND UNIT CLERK COSTS
VARIANT TREATMENT GROUP, JULY/AUGUST

	TOTAL OBSERVATIONS PER TASK	PROPORTION (COLUMN 1 + TOTAL OBSERVATIONS)[a]	TOTAL HOURS PER TASK[b]	TOTAL COST PER TASK[c]	COST PER CASE MONTH[d]
Supervisors					
Monthly reporting	26	.062	10	106	.048
Interim	42	.100	16	169	.061
Non-case	159	.377	61	644	.291
Unit Clerks					
Monthly reporting	344	.570	126	663	.299
Interim	0	0	0	0	0
Non-case	37	.061	14	74	.033

[a]Total work observations: 422--supervisors; 604--unit clerks.

[b]Total work hours: 162--supervisors; 222--unit clerks.

[c]Average weighted wage rate: $10.56--supervisors; $5.26--unit clerks.

[d]Total food stamp case months: 2,214.

Table E-24

CALCULATIONS OF ADMINISTRATIVE COSTS BY WORKER CLASS
VARIANT TREATMENT GROUP, JULY/AUGUST

	COST PER CASE MONTH	NON-WORK COSTS[a]	SUBTOTAL	TOTAL FRINGE BENEFIT COSTS[b]	TOTAL COSTS PER CASE MONTH
Caseworkers					
Monthly reporting	.927	.101	1.028	.474	1.502
Interim	.475	.052	.527	.244	.770
Non-case	.879	.096	.974	.450	1.424
Supervisors					
Monthly reporting	.048	.007	.056	.026	.082
Interim	.061	.010	.071	.032	.103
Non-case	.291	.045	.336	.155	.491
Unit Clerks					
Monthly reporting	.299	.046	.345	.159	.505
Interim	0	0	0	0	0
Non-case	.033	.005	.038	.018	.056

[a]See Appendix F for average non-work rates.

[b]Fringe benefit rate: .4615.

Table E-25

ADMINISTRATIVE COSTS PER CASE MONTH
BY WORKER CLASS BY MEASUREMENT PERIOD
VARIANT TREATMENT GROUP

	CASE-WORKERS	SUPER-VISORS	UNIT CLERKS	FINAN-CIAL	SUB-TOTAL	DATA PRO-CESSING	TOTAL
January-February	3.089	.885	.334	.955	5.27	.40	5.67
Percent of total	54%	16%	6%	17%		7%	
April-May	2.388	.430	.287	1.072	4.18	.40	4.58
Percent of total	52%	9%	6%	23%		9%	
July-August	3.696	.675	.561	1.254	6.19	.40	6.59
Percent of total	56%	10%	9%	19%		6%	

Table E-26

OBSERVATIONS OF CASEWORKERS IN THE FOOD STAMP PROGRAM
CONVENTIONAL TREATMENT GROUP, JANUARY/FEBRUARY

	FOOD STAMPS ONLY	AFDC/ FS .50	AD-JUSTED TOTAL	PROPOR-TION	INTER-VIEWS (RD/RC)	HOME VISITS	SUB-TOTAL	IN-QUIRY	OTHER NON-FORMS	SUB-TOTAL	FIL-ING	TELE-PHONE	CON-VER-SA-TION	OTHER-OUT-OF-OFFICE	TRAN-SIT	MIS-SING	TOTAL
Redetermination																	
Preparation	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Budgeting	3	10	13	.0928	6	30	49	2	11	62	2	1	5	0	0	0	70
School verification	0	19	19	.1357	9	43	71	3	16	90	3	1	7	1	0	1	103
WIN/job service	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Reporting/grant change Δ	22	30	52	.3714	23	118	193	7	43	243	9	3	18	2	1	3	279
Other redetermination/ recertification	33	23	56	.4000	25	128	209	8	46	263	10	3	20	2	1	3	302
Total	58	82	140		63	319	522	20	116	658	24	8	50	5	2	7	754
Interim					INTER-VIEWS OTHER	CASE REVIEW											
Address change Δ	0	11	11	.0555	1	2	14	1	3	18	1	7	1	0	0	0	27
Budgeting	12	37	49	.2474	5	9	63	2	14	79	3	32	6	1	0	1	122
Grant change Δ	13	80	93	.4696	10	16	119	5	26	150	6	61	11	1	1	2	232
Supplement	11	9	20	.1010	2	3	25	1	6	32	1	13	3	0	0	0	49
Lost/stolen	0	1	1	.0050	0	0	1	0	0	1	0	1	0	0	0	0	2
Void and rewrite	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Appeals/hearings	0	2	2	.0101	0	0	2	0	1	3	0	1	0	0	0	0	4
Corrective action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other interim	15	7	22	.1111	2	4	28	1	6	35	1	15	3	0	0	1	55
Total	51	147	198		20	34	252	10	56	318	12	130	24	2	1	4	491

Table E-27

CALCULATIONS OF CASEWORKER COSTS
CONVENTIONAL TREATMENT GROUP, JANUARY/FEBRUARY

	TOTAL OBSERVATIONS PER TASK	PROPORTION (COLUMN 1 + TOTAL OBSERVATIONS)[a]	TOTAL HOURS PER TASK[b]	TOTAL COST PER TASK[c]	COST PER CASE MONTH[d]
Redetermination/ Recertification	754	.195	283	2,361	1.011
Interim					
Address change	27	.007	10	85	.036
Budgeting	122	.032	46	382	.164
Grant change	232	.060	87	726	.311
Supplement	49	.013	18	153	.066
Lost/stolen	2	.001	1	6	.003
Void and rewrite	0	0	0	0	0
Appeals/hearings	4	.001	2	13	.005
Corrective action	0	0	0	0	0
Other interim	55	.014	21	172	.074
Non-case	174	.045	65	545	.232

[a]Total work observations: 3,872.

[b]Total work hours: 1,452.

[c]Average weighted wage rate: $8.35.

[d]Total food stamp case months: 2,335.

Table E-28

CALCULATIONS OF SUPERVISORY COSTS
CONVENTIONAL TREATMENT GROUP, JANUARY/FEBRUARY

	TOTAL OBSERVATIONS PER TASK	PROPORTION (COLUMN 1 + TOTAL OBSERVATIONS)[a]	TOTAL HOURS PER TASK[b]	TOTAL COST PER TASK[c]	COST PER CASE MONTH[d]
Supervisors					
Redetermination/ recertification	42	.084	16	169	.083
Interim	67	.135	25	264	.136
Non-case	57	.114	21	222	.095

[a]Total work observations: 498.

[b]Total work hours: 186.

[c]Average weighted wage rate: $10.56.

[d]Total food stamp case months: 2,335.

Table E-29

CALCULATIONS OF ADMINISTRATIVE COSTS BY WORKER CLASS
CONVENTIONAL TREATMENT GROUP, JANUARY/FEBRUARY

	COST PER CASE MONTH	NON-WORK COSTS[a]	SUBTOTAL	TOTAL FRINGE BENEFIT COSTS[b]	TOTAL COSTS PER CASE MONTH
Caseworkers					
Redetermination/ recertification	1.011	.110	1.121	.517	1.639
Interim	.658	.072	.730	.338	1.068
Non-case	.232	.025	.258	.119	.377
Supervisors					
Redetermination/ recertification	.083	.013	.095	.044	.139
Interim	.136	.020	.156	.072	.228
Non-case	.095	.015	.110	.051	.160
Unit Clerks					
Redetermination/ recertification	.106	.016	.122	.056	.179
Interim	.068	.010	.078	.036	.114
Non-case	.025	.004	.029	.013	.042

[a]See Appendix F for average non-work rates.

[b]Fringe benefit rate: .4615.

Table E-30

OBSERVATIONS OF CASEWORKERS IN THE FOOD STAMP PROGRAM
CONVENTIONAL TREATMENT GROUP, APRIL/MAY

	FOOD STAMPS ONLY	AFDC/FS .50	ADJUSTED TOTAL	PROPORTION	INTERVIEWS (RD/RC)	HOME VISITS	SUBTOTAL	INQUIRY	OTHER NONFORMS	SUBTOTAL	FILING	TELEPHONE	CONVERSATION	OTHER-OUT-OF-OFFICE	TRANSIT	MISSING	TOTAL
Redetermination																	
Preparation	0	19	19	.1172	3	36	58	1	3	62	4	0	4	0	0	1	71
Budgeting	45	2	47	.2901	6	91	144	3	6	153	11	1	10	0	1	1	177
School verification	0	20	20	.1234	3	38	61	1	3	65	5	0	4	0	1	1	76
WIN/job service	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Reporting/grant change Δ	35	5	40	.2469	5	77	122	3	5	130	10	1	9	0	1	1	152
Other redetermination/recertification	23	13	36	.2222	5	70	111	3	5	119	9	1	8	0	1	1	139
Total	103	59	162		22	312	496	11	22	529	39	3	35	0	4	5	615
Interim					INTERVIEWS (OTHER)	CASE REVIEW											
Address change Δ	0	9	9	.2571	5	2	16	0	1	17	1	11	1	0	0	0	30
Budgeting	9	3	12	.3428	7	2	21	1	1	23	2	15	1	0	1	1	43
Grant change Δ	4	1	5	.1428	3	1	9	0	0	9	1	6	1	0	0	0	17
Supplement	2	0	2	.0571	1	1	4	0	0	4	0	2	0	0	0	0	6
Lost/stolen	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Void and rewrite	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Appeals/hearings	0	1	1	.0285	1	0	2	0	0	2	0	1	0	0	0	0	3
Corrective action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other interim	4	2	6	.1714	3	1	10	0	1	11	1	7	1	0	0	0	20
Total	19	16	35		20	7	62	1	3	66	5	42	4	0	1	1	119

Table E-31

CALCULATIONS OF CASEWORKER COSTS
CONVENTIONAL TREATMENT GROUP, APRIL/MAY

	TOTAL OBSERVATIONS PER TASK	PROPORTION (COLUMN 1 + TOTAL OBSERVATIONS)[a]	TOTAL HOURS PER TASK[b]	TOTAL COST PER TASK[c]	COST PER CASE MONTH[d]
Redetermination/ Recertification	615	.168	230	1,919	.858
Interim					
Address change	30	.008	11	94	.042
Budgeting	43	.012	16	134	.060
Grant change	17	.005	6	53	.024
Supplement	6	.002	2	19	.008
Lost/stolen	0	0	0	0	0
Void and rewrite	0	0	0	0	0
Appeals/hearings	3	.001	1	9	.004
Corrective action	0	0	0	0	0
Other interim	20	.005	7	62	.028
Non-case	210	.057	78	651	.291

[a] Total work observations: 3,671.

[b] Total work hours: 1,372.

[c] Average weighted wage rate: $8.35.

[d] Total food stamp case months: 2,238.

Table E-32

CALCULATIONS OF SUPERVISORY COSTS
CONVENTIONAL TREATMENT GROUP, APRIL/MAY

	TOTAL OBSERVATIONS PER TASK	PROPORTION (COLUMN 1 + TOTAL OBSERVATIONS)[a]	TOTAL HOURS PER TASK[b]	TOTAL COST PER TASK[c]	COST PER CASE MONTH[d]
Supervisors					
Redetermination/ recertification	48	.092	18	190	.086
Interim	26	.050	10	106	.037
Non-case	61	.117	23	243	.109

[a]Total work observations: 522.

[b]Total work hours: 198.

[c]Average weighted wage rate: $10.56.

[d]Total food stamp case months: 2,238.

Table E-33

CALCULATIONS OF ADMINISTRATIVE COSTS BY WORKER CLASS
CONVENTIONAL TREATMENT GROUP, APRIL/MAY

	COST PER CASE MONTH	NON-WORK COSTS[a]	SUBTOTAL	TOTAL FRINGE BENEFIT COSTS[b]	TOTAL COSTS PER CASE MONTH
Caseworkers					
Redetermination/ recertification	.858	.093	.951	.439	1.390
Interim	.166	.019	.185	.084	.269
Non-case	.291	.032	.323	.149	.472
Supervisors					
Redetermination/ recertification	.086	.013	.099	.046	.145
Interim	.037	.005	.043	.020	.063
Non-case	.109	.017	.125	.058	.183
Unit Clerks					
Redetermination/ recertification	.089	.014	.103	.048	.151
Interim	.023	.004	.027	.013	.040
Non-case	.033	.005	.038	.018	.056

[a] See Appendix F for average non-work rates.

[b] Fringe benefit rate: .4615.

Table E-34

OBSERVATIONS OF CASEWORKERS IN THE FOOD STAMP PROGRAM
CONVENTIONAL TREATMENT GROUP, JULY/AUGUST

	FOOD STAMPS ONLY	AFDC/ FS .50	AD-JUSTED TOTAL	PROPOR-TION	INTER-VIEWS (RD/RC)	HOME VISITS	SUB-TOTAL	IN-QUIRY	OTHER NON-FORMS	SUB-TOTAL	FIL-ING	TELE-PHONE	CON-VER-SA-TION	OTHER-OUT-OF-OFFICE	TRAN-SIT	MIS-SING	TOTAL
Redetermination																	
Preparation	0	35	35	.1194	3	62	100	4	8	112	9	1	9	0	1	2	134
Budgeting	89	13	102	.3481	9	180	291	10	25	326	27	2	26	0	2	6	389
School verification	0	4	4	.0136	0	7	11	1	1	13	1	0	1	0	0	0	15
WIN/job service	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Reporting/grant change Δ	20	42	62	.2116	5	109	176	6	15	197	16	1	16	0	2	4	236
Other redetermination/ recertification	33	57	90	.3071	8	158	256	9	22	287	23	2	22	0	2	5	341
Total	142	151	293		25	516	834	30	71	935	76	6	74	0	7	17	1,115
Interim					INTER-VIEWS (OTHER)	CASE REVIEW											
Address change Δ	0	11	11	.3142	11	10	32	1	3	36	3	31	3	0	1	1	75
Budgeting	2	2	4	.1142	4	3	11	1	1	13	1	11	1	0	0	0	26
Grant change Δ	2	4	6	.1714	6	5	17	1	2	20	2	17	2	0	0	0	41
Supplement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lost/stolen	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Void and rewrite	2	0	2	.0571	2	2	6	0	1	7	0	6	0	0	0	0	13
Appeals/hearings	0	2	2	.0571	2	2	6	0	0	6	1	5	0	0	0	0	12
Corrective action	2	0	2	.0571	2	2	6	0	0	6	0	5	1	0	0	0	12
Other interim	6	2	8	.2285	8	7	23	1	2	26	2	22	2	0	0	1	53
Total	14	21	35		35	31	101	4	9	114	9	97	9	0	1	2	232

Table E-35

CALCULATIONS OF CASEWORKER COSTS
CONVENTIONAL TREATMENT GROUP, JULY/AUGUST

	TOTAL OBSERVATIONS PER TASK	PROPORTION (COLUMN 1 + TOTAL OBSERVATIONS)[a]	TOTAL HOURS PER TASK[b]	TOTAL COST PER TASK[c]	COST PER CASE MONTH[d]
Redetermination/ Recertification	1,115	.303	416	3,472	1.520
Interim					
Address change	75	.020	28	234	.102
Budgeting	26	.007	10	81	.035
Grant change	41	.011	15	128	.056
Supplement	0	0	0	0	0
Lost/stolen	0	0	0	0	0
Void and rewrite	13	.004	5	40	.018
Appeals/hearings	12	.003	4	37	.016
Corrective action	12	.003	4	37	.016
Other interim	53	.014	20	165	.072
Non-case	371	.101	138	1,152	.504

[a]Total work observations: 3,676.

[b]Total work hours: 1,371.

[c]Average weighted wage rate: $8.35.

[d]Total food stamp case months: 2,284.

Table E-36

CALCULATIONS OF SUPERVISORY COSTS
CONVENTIONAL TREATMENT GROUP, JULY/AUGUST

	TOTAL OBSERVATIONS PER TASK	PROPORTION (COLUMN 1 + TOTAL OBSERVATIONS)[a]	TOTAL HOURS PER TASK[b]	TOTAL COST PER TASK[c]	COST PER CASE MONTH[d]
Supervisors					
Redetermination/ recertification	49	.130	18	190	.091
Interim	17	.045	6	63	.028
Non-case	105	.278	39	412	.180

[a]Total work observations: 378.

[b]Total work hours: 142.

[c]Average weighted wage rate: $10.56.

[d]Total food stamp case months: 2,284.

Table E-37

CALCULATIONS OF ADMINISTRATIVE COSTS BY WORKER CLASS
CONVENTIONAL TREATMENT GROUP, JULY/AUGUST

	COST PER CASE MONTH	NON-WORK COSTS[a]	SUBTOTAL	TOTAL FRINGE BENEFIT COSTS[b]	TOTAL COSTS PER CASE MONTH
Caseworkers					
Redetermination/ recertification	1.520	.165	1.686	.778	2.464
Interim	.316	.035	.351	.161	.512
Non-case	.504	.055	.559	.258	.818
Supervisors					
Redetermination/ recertification	.091	.014	.105	.049	.154
Interim	.028	.003	.031	.016	.047
Non-case	.180	.028	.208	.096	.304
Unit Clerks					
Redetermination/ recertification	.159	.024	.183	.085	.268
Interim	.041	.006	.048	.022	.070
Non-case	.041	.006	.048	.022	.070

[a]See Appendix F for average non-work rates.

[b]Fringe benefit rate: .4615.

Table E-38

ADMINISTRATIVE COSTS PER CASE MONTH
BY WORKER CLASS BY MEASUREMENT PERIOD
CONVENTIONAL TREATMENT GROUP

	CASE-WORKERS	SUPER-VISORS	UNIT CLERKS	FINAN-CIAL	SUB-TOTAL	DATA PRO-CESSING	TOTAL
January-February	3.083	.528	.335	.193	4.14	.11	4.25
Percent of total	73%	12%	8%	5%		3%	
April-May	2.131	.391	.247	.230	3.00	.11	3.11
Percent of total	69%	13%	8%	7%		4%	
July-August	3.795	.506	.408	.370	5.08	.11	5.19
Percent of total	73%	10%	7%	7%		2%	

APPENDIX F

CALCULATING NET NON-WORK OBSERVATIONS AND HOURS

CALCULATING NON-WORK RATES

APPENDIX F

CALCULATING NET NON-WORK OBSERVATIONS AND HOURS

As can be seen from the calculation of work hours in Appendix B, for a significant portion of total paid hours, staff are not available for work. All staff are entitled to and actually do take paid leave time (holidays, vacation, sick leave). Some staff take leave without pay which must also be excluded from total hours available for work. Calculations for these procedures are described in Appendix B, and results are displayed in Tables B-1, B-2, and B-3.

Another source of non-available work time is allowed lunch and break periods. Workers at Southeast District Office are allowed a sixty-minute lunch period (unpaid) and two fifteen-minute paid breaks each day.

Information on allowed lunch and break time was estimated from our information on daily attendance. First, for each measurement period, a maximum amount of lunch/break time is calculated under the assumption of no absences. Then, the number of lunches and breaks associated with paid holidays are subtracted. Finally, the number of lunches and breaks for the actual number of absent person-days is subtracted. At Southeast District, almost 18 percent of paid hours available for work are allocated to allowed lunch/break time. This percentage is used in calculating net non-work hours.

For example, for caseworkers in the experimental treatment group in January/February, we have a total of 3,952 work and non-work observations. Of this total, 951 observations are counted as non-work. We exclude almost 18 percent of these observations from the analysis as observations of allowed lunch/break time.

.1767 (3,952) = 698 allowed lunch/break

So, our net count of non-work observations is:

951 - 698 = 253 net non-work

Thus, to estimate percent of non-work (excluding allowed lunches and breaks), we first subtract allowed non-work from total observations:

3,952 - 698 = 3,254

253/3,254 = .0778

If total hours available for work are 1,230 (Table 3-5), then:

.0778 (1,230) = 96 hours of non-work

and

1,230 - 96 = 1,134 hours of work.

Finally, we calculate total work observations:

3,254 - 253 = 3,001 work observations

The results of these calculations for each worker class by treatment group by observation period are reported in Tables B-4, B-5, and B-6.

Calculating Non-Work Rates

The non-work rate refers to the costs of office "slack" time. It is expressed as a cost per dollar of total worker case and non-case costs. Because the amount and hourly cost of non-work time varies for each class of workers, the computational procedures allow for the calculation of separate cost rates for each worker-class.

The computations below use the experimental office as an example. Table F-1 displays non-work rates by worker class by treatment group for all three measurement periods. In this analysis, average non-work rates were applied. That is, a non-work rate for each class of workers was calculated across the three measurement periods. These rates also appear in Table F-1. Calculations can be expressed as:

$$(H_{NWCW})\ (W_{CW})\ /\ M$$

where

H_{NWCW} = net non-work hours estimated for caseworkers;

W_{CW} = weighted average wage rate for caseworkers;

M = estimated caseload for treatment group.

Thus, for caseworkers in the experimental office in January/February, the cost of non-work time per case month is:

$$96\ (8.35)/2,739 = .2927$$

This figure is converted to a rate per dollar cost of work per case month by:

$$C_{NWCW}/C_{MR,1,NC,CW}$$

where

C_{NW} = the dollar cost of non-work per case month for caseworkers;

$C_{MR,I,NC,NW}$ = the per-case-month dollar cost of all work activities for caseworkers.

Thus, substituting observed costs in the equation gives the non-work rate for caseworkers during the January/February measurement period:

$$.2927/3.39 = .0863$$

Similar calculations were performed for each group of workers for each measurement period.

Table F-1

NON-WORK RATES BY WORKER CLASS BY TREATMENT GROUP

	EXPERIMENTAL	VARIANT	CONVENTIONAL
January/February			
Caseworkers	.0863	.0900	.0898
Supervisors	.1710	.0000	.1739
Clerks	.0745	.1327	NA
Financial	.4023	.4023	.3662
April/May			
Caseworkers	.1621	.1112	.1375
Supervisors	.1938	.0000	.3469
Clerks	.1120	.2947	NA
Financial	.3660	.3660	.3414
July/August			
Caseworkers	.0550	.0786	.1669
Supervisors	.0559	.0000	.5253
Clerks	.1021	.1868	NA
Financial	.5571	.5571	.5604

ALL GROUPS

Average	
Caseworkers	.1088
Supervisors	.1542
Clerks	.1541
Financial	.4358

APPENDIX G

COMPUTING A FRINGE BENEFIT RATE

APPENDIX G

COMPUTING A FRINGE BENEFIT RATE

There are three basic cost components of a fringe benefit rate: (1) paid leave time; (2) paid break time; and (3) "non-personnel" costs such as insurance. Computations for each of these three components are given below. It is important to note that these calculations treat fringe benefits as "earned" (or accrued) rather than as "actual." For example, paid leave time is valued in terms of how much paid leave time is earned per hour and not in terms of how much leave time was taken during the observation period. Also, fringe costs here are computed as a rate of per dollar of paid time available for work.

Base Number of Hours Worked and Base Salary

Illinois' gross annual salaries are based on 260 paid work days, or 1,950 hours:

7.5 paid hours/day (260) = 1,950 paid hours/year

Paid leave time of all types:

12 paid holidays	90.0 hours/year
12 paid sick days	90.0 hours/year
3 paid personal business days	22.5 hours/year
10 paid vacation days	75.0 hours/year
37 paid days of leave	277.5 hours/year

Thus, we have:

223 work days or 1,672.5 hours

which includes paid break time of

111.5 hours/year: .5 (223) = 111.5

Workers are paid for two fifteen-minute breaks each day, or .5 hours. Thus, the base number of hours actually available for work is:

1,672.5 - 111.5 = 1,561 hours

Assuming an hourly wage rate for caseworkers of $(8.03 (the mean of weighted hourly wage rates for caseworkers in January/February), then the annual base salary is:[1]

1,561 ($8.03) = $12,535

Earned Paid Leave Time

Employees of the Illinois Department of Public Aid are paid for an estimated 37 days of leave per year. (See list in preceding section.)

Two assumptions warrant comment.

First, in computing the cost of entitled sick time, this analysis assumes that workers in fact utilize all the sick time they earn in a given year. Since workers are allowed to carry over sick time into the next fiscal year, on an individual basis this assumption probably overstates the cost of this benefit. However, workers are allowed to exhaust all their sick time prior to retirement or termination of employment. Thus, in the aggregate the assumption of nearly full utilization of entitled sick time in any given year is not unreasonable.

Second, this potential overstatement is less worrisome because it may partially compensate for a possible underestimation of paid vacation days. The IDPA has a scale (more years of service equals more vacation days) for determining earned vacation. Lacking information on years of service for

[1]Since the fringe benefit rate is computed on the basis of worker salaries, it is insignificant whether the selected base is for caseworkers, clerks, or supervisors; the rate itself will be the same for all classes of workers. To avoid redundancies in this presentation, the computations are limited to caseworkers only.

SEDO employees, for this analysis we have assumed the minimal vacation days of ten per year.

37 days (7.5 hours/day) = 277.5 hours of paid leave/year

277.5 hours ($8.03) = $2,228 cost of paid leave time

Labor Costs for Paid Break Time

Workers are entitled to two fifteen-minute breaks per day for 223 days per year (260 - 37 = 223).

.5 (223) = 111.5 paid break hours/year

111.5 ($8.03) = $895 cost of paid break time

Non-Personnel Costs

This category incorporates all state contributions to insurance plans and pension funds. For 1982, these costs amounted to 17 percent of paid salaries:

	Percent
Insurance	5.0
Social Security	6.7
Retirement	5.3
	17.0

These figures, which were supplied by the Illinois Department of Public Aid, are computed as a percentage of gross salaries. Consequently, it is necessary to compute the dollar equivalent and then express the amount as a percent of salaries based on actual available work time. As shown earlier, annual paid hours total 1,950, or $15,659.

1,950 ($8.03) = $15,659

Thus, the dollar value of non-personnel fringe benefits is:

.17 ($15,659) = $2,662

Compiling the Fringe Benefit Rate

Total fringe costs can be summarized as follows:

Paid leave time	$2,228
Paid break time	895
Non-personnel	2,662
Total fringes	$5,785

The final step in these calculations is dividing the estimated fringe costs by the estimated base salary:

$5,785/$12,535 = .4615

This result shows that for every dollar of direct labor, total fringe costs equal $.46.

APPENDIX H

ESTIMATING POSTAGE COSTS

APPENDIX H

ESTIMATING POSTAGE COSTS

Estimates for postage costs for conventional clients are based on the assumption that on average, a client receives eight mailed communications per year.[1]

Thus:

8($.20) = $1.60/12 case months/year

= $.13 per case month

Postage estimates for monthly reporting were based on postage expenditures incurred by the Illinois Monthly Reporting Project. Postage expenses[2] for Southeast District (SEDO) and Peoria totaled $70,209. Of this sum, $42,476 was allocated to SEDO. This allocation was based on the caseload distribution between the two offices, where the average monthly reporting caseload at SEDO was 5,459; the average at Peoria was 3,564. SEDO accounts for 60.5 percent of the caseload. Thus:

.605 ($70,209) = $42,476

About 10 percent of these expenditures were incurred for Quality Control or other local project mailings. Thus, the total postage estimate for the 12-month experiment is $38,228 or $3,102 per month. This estimate was divided by the average monthly reporting caseload (5,459) to arrive at a per-case-month-cost of $.57.

---

[1] Information on this topic was provided by staff of the Illinois Monthly Reporting Project.

[2] Research mailings, project administrative expenditures, and postage costs for Kankakee have been eliminated from this estimate. See Chapter One for a discussion of these expenditures.

APPENDIX I

CALCULATING DATA PROCESSING COSTS

APPENDIX I

CALCULATING DATA PROCESSING COSTS

A complete data processing estimate would require detailed information on all automated systems operated by the Illinois Department of Public Aid (IDPA). Because acquisition of such information was infeasible, the data processing estimates used here are somewhat simplified. They do not incorporate IDPA's administrative system or its Medical Management System. The assumptions here are:

- Costs for these systems would be the same for both monthly and conventional reporting;
- Costs of these systems are included in the overall administrative cost estimates which include the general operation of the department (see Appendix O).

The focus here is on two subsystems of the Client Information System:

1. The Illinois Public Aid Communications System (IPACS) which is a data entry, editing, and inquiry system that inputs data to the UPDATE system;
2. The UPDATE system which continuously creates a new Client Data Base (CDB). The CDB contains a single record for each case which serves as the basis for issuing warrants, food stamp ATPs, medical eligibility cards and the like.

The Monthly Reporting System (MRS) served as a "front-end" system, similar to IPACS.

Theoretically, the monthly reporting treatment groups should have MRS, UPDATE, and local equipment costs while the conventional system would have IPACS, UPDATE, and local equipment costs. As this report has noted in some detail, the Illinois monthly reporting experiment had IPACS costs and a share of equipment costs assigned to the conventional financial unit because of ongoing problems with the MRS.

To calculate data processing costs, average (per month) system costs were needed as were the average number of transactions per month. A transaction is a case action datum entered on to the MRS or IPACS.

Information to calculate conventional system costs and caseload estimates were provided by IDPA's Bureau of Information Systems. Expenditure information on the MRS and on local equipment was provided by the Illinois Monthly Reporting Project. Transaction frequencies were obtained from Abt's Illinois Case Data Base.

Table I-1 displays average transactions per month for the three experimental groups. Average costs per month are shown in Table I-2. Information from the two tables is combined to arrive at an estimated cost per transaction.

Conventional Equipment Cost Per Transaction

As discussed in detail in Appendix L, the conventional financial unit also handled non-AFDC tasks, therefore, equipment costs must be adjusted to reflect this use. Across the three measurement periods, about 38 percent of at-desk forms observations in the financial unit were attributed to non-AFDC activities. Consequently, total equipment costs were adjusted:

.3837 ($966) = $370.65

$966 - $370.65 = $595.35 average AFDC costs per month

$595.35/6,055 total IPACS transactions per month

= $.0983 per transaction.

Costs per transaction are recombined with average numbers of transactions and average estimated caseload to arrive at data processing costs per case month. Estimates for the Food Stamp Program are displayed in Table I-3.

Table I-1

AVERAGE AFDC/FOOD STAMP TRANSACTIONS
PER MONTH BY TREATMENT GROUP

	NUMBER OF TRANSACTIONS	AVERAGE CASELOAD	TRANSACTIONS PER CASEMONTH
Monthly Reporting			
Experimental group	5,295		
Variant group	5,318		
Total MRS	10,613	5,523	1.92
IPACS (Conventional)[a]			
Experimental and variant groups	4,027	5,523	.73
Conventional group	2,028	2,810	.72
Total IPACS	6,055		

[a]Estimated statewide IPACs transactions per month is 3,512,880 (Bureau of Inforamtion Systems, IDPA).

Table I-2

AVERAGE COSTS PER MONTH FOR AUTOMATED SYSTEMS

MRS	
CPU	$3,563
Equipment (9 terminals, 2 printers and connecting lines)	1,416
Personnel	1,497
Other (storage, disk leasing, spooled output)	629
TOTAL	$7,105
IPACS	
CPU, Personnel, and Other	$106,475
Equipment (2 terminals, 1 printer, and connecting lines)	966
UPDATE	
IDPA estimate	$7,774

MRS Cost Per Transaction

$7,105/month/10,613 transactions

= $.6695 per transaction

IPACS Cost Per Transaction

$106,475/month/3,512,880 transactions

= $.0303 per transaction

UPDATE Cost Per Transaction

$7,774/month/328,398 transactions

= $.0237 per transaction

Table I-3

DATA PROCESSING COSTS FOR THE FOOD STAMP PROGRAM

	COST PER TRANSACTION	AVERAGE FOOD STAMP TRANSACTIONS PER MONTH	AVERAGE COST PER MONTH	AVERAGE CASELOAD PER MONTH	AVERAGE COST PER CASEMONTH
Monthly Reporting					
MRS	$.6695	4,386	$3,048.27	4,608	$ .66
Conventional Equipment	.0938	2,202	206.55		.05
IPACS	.0303	2,202	66.72		.01
UPDATE	.0237	6,588	156.14		.03
TOTAL					$ .75
Conventional Reporting					
Equipment	$.0983	1,558	153.15	2,286	$ .07
IPACS	.0303	1,558	47.21		.02
UPDATE	.0237	1,558	36.92		.02
TOTAL					$ .11

APPENDIX J

ADJUSTMENTS TO FINANCIAL UNIT CALCULATIONS

APPENDIX J

ADJUSTMENTS TO FINANCIAL UNIT CALCULATIONS

Because of problems with the automated system, workers in the conventional financial unit performed work for the experimental and variant treatment groups. Consequently, some of the costs of the conventional unit had to be assigned to monthly reporting. This appendix explains the procedures used to estimate these costs.

First, it is important to understand that workers in the conventional financial unit also handled non-AFDC chores. That is, they edited and entered data on various medical assistance programs, NPA-Food Stamps, and so on. During the random moment surveys, observers recorded for at-desk-forms activities whether or not financial unit workers were dealing with AFDC or non-AFDC tasks. Although we are not calculating non-AFDC costs in this analysis, they must be excluded, or AFDC administrative costs will be overestimated. Thus, the first allocation of data from the conventional financial unit is between AFDC and non-AFDC. These observations are shown in Table J-1. The proportion (AFDC to non-AFDC) is then applied to allocate other work observations that were not recorded by program. For example, the observed proportion is:

AFDC	392	.5144
Non-AFDC	370	.4856
	762	

Thus, to allocate the observations of other non-forms:

N = 494

.5144 (494) = 254 allocated as AFDC

.4856 (494) = 240 allocated as non-AFDC

The next step is the allocation of observations between casework and non-casework tasks. Direct observations of non-casework are reported in Table J-2. The proportion used above is again applied to assign non-casework costs to AFDC or non-AFDC.

Table J-1

OBSERVATIONS OF AFDC/NON-AFDC WORK ACTIVITIES
IN THE CONVENTIONAL FINANCIAL UNIT
(JANUARY/FEBRUARY)

	AFDC	NON-AFDC
Observed		
MSR inquiry	1	0
Edit forms	101	29
Data input	290	341
TOTAL	392	370
Allocated		
Other non-forms	254	240
Out-of-office[a]	19	17
TOTAL	273	257
Total Observed Plus Allocated	665	627

[a]All observations of out-of-office work activity in the financial unit are case-related.

Table J-2

OBSERVATIONS OF NON-CASEWORK ACTIVITIES
IN THE CONVENTIONAL FINANCIAL UNIT
(JANUARY/FEBRUARY)

	AFDC	NON-AFDC
General Activity		
Manuals	2	1
Staff meetings	5	5
Other	8	7
TOTAL	15	13

The next set of allocations (distributing observations of filing, telephone, and the like) utilizes total observations for casework and non-casework. There are 1,292 observations of direct casework activities for AFDC and non-AFDC and 28 observations of non-casework. Again, a proportion is calculated and applied to the work observations. Thus,

1,292	observations of casework	.9780
28	observations of non-casework	.0212
1,320		

There are 199 observations of filing activities, so:

.9780 (199) = 195 to casework
.0212 (199) = 4 to non-casework

Table J-3 shows all of these allocations.

The algorithm for distributing the direct casework observations between AFDC and non-AFDC is the previously calculated proportion between observed AFDC and non-AFDC at-desk-forms work activities. Thus, the 195 observations of filing assigned to direct casework are allocated:

.5144 (195) = 100 allocated to AFDC
.4856 (195) = 95 allocated to non-AFDC

Tables J-4 and J-5 show completed allocations for AFDC and non-AFDC casework and non-casework.

After AFDC and non-AFDC observations have been disaggregated, it is possible to assign AFDC observations to either conventional reporting or monthly reporting. There are, of course, no data from the random moment surveys to help with this allocation. Therefore, transactions data from the case data base were used in these computations. Most of the transactions on the case data base could be traced to a specific form and treatment group. That is, it was possible to ascertain whether or not a transaction for a specific client was entered onto the monthly or conventional reporting system. Transactions on the conventional system were reviewed, and average transactions per month were calculated. Average transactions by treatment group are:

Table J-3

ALLOCATIONS OF WORK ACTIVITIES BETWEEN DIRECT CASEWORK TASKS AND NON-CASEWORK IN THE CONVENTIONAL FINANCIAL UNIT (JANUARY/FEBRUARY)

	DIRECT CASEWORK	NON-CASEWORK
Filing	195	4
Telephone	10	0
Conversation	87	2
Transit	26	1
Missing	15	0
TOTAL	333	7

Table J-4

TOTAL OBSERVATIONS OF AFDC AND NON-AFDC DIRECT CASEWORK ACTIVITIES IN THE CONVENTIONAL FINANCIAL UNIT (JANUARY/FEBRUARY)

	AFDC	NON-AFDC
Observed[a]		
MSR inquiry	1	0
Edit forms	101	29
Data input	290	341
SUBTOTAL	392	370
Allocated[a]		
Other non-forms	254	240
Out-of-office	19	17
SUBTOTAL	273	257
Allocated[b]		
Filing	100	95
Telephone	5	5
Conversation	45	42
Transit	13	13
Missing	8	7
SUBTOTAL	171	162
TOTAL	836	789

[a]See Table J-1.

[b]See Table J-3.

Table J-5

TOTAL OBSERVATIONS OF NON-CASEWORK
ACTIVITIES IN THE CONVENTIONAL FINANCIAL UNIT
(JANUARY/FEBRUARY)

	AFDC	NON-AFDC
Observed[a] General Activity[a]		
Manuals	2	1
Staff meetings	5	5
Other	8	7
SUBTOTAL	15	13
Allocated[b]		
Filing	2	2
Telephone	0	0
Conversation	1	1
Transit	1	0
Missing	0	0
SUBTOTAL	4	3
TOTAL	19	16

[a] See Table J-2.

[b] See Table J-3.

Experimental	1,940	.32	.66
Variant	2,087	.34	
Conventional	2,028	.34	

These proportions were used to disaggregate observations of AFDC work activities to estimate costs for conventional and monthly reporting. For example, using observations reported in Table J-4, where 101 observations of "edit forms" were observed as AFDC. Thus:

.34 (101) = 34 observations allocated to conventional reporting

.66 (101) = 67 observations allocated to monthly reporting

Table J-6 shows these allocations by task. Non-AFDC observations are not repeated here because they are not germane to the remainder of the analysis.

A further allocative step is needed in this analysis: allocating work observations to food stamp tasks. The proportions of observed/allocated food stamp activity (Table 2-2) and the procedures described in Chapter Two were applied to obtain these estimates which are reported in Table J-7. For example, during January/February, 37 percent of at-forms caseworker observations in the conventional treatment group were considered to be related to food stamp activities. Thus, 37 percent (or 13) of the 34 observations of editing forms allocated to financial workers for conventional reporting (Table J-6) were assigned to the Food Stamp Program.

Similar calculations were performed for conventional financial unit observations for each measurement period. These adjusted observations served as the basis for computing administrative costs. The equations for calculating costs appear in Appendices A, C, F, and L. Tables J-8 and J-9 display estimated costs for both financial units for the three measurement periods.

Table J-6

ALLOCATION OF CONVENTIONAL FINANCIAL UNIT OBSERVATIONS TO MONTHLY AND CONVENTIONAL REPORTING (JANUARY/FEBRUARY)

	CASEWORK		NON-CASEWORK	
	AFDC CONVEN-TIONAL	AFDC MONTHLY REPORTING	AFDC CONVEN-TIONAL	AFDC MONTHLY REPORTING
Observed[a]				
MSR inquiry	0	1		
Edit forms	34	67		
Data input	99	191		
SUBTOTAL	133	258		
Allocated[a]				
Other non-forms	86	168		
Out-of-office	6	13		
SUBTOTAL	92	181		
Observed[b]				
General activity manuals			1	1
Staff meetings			2	3
Other			3	5
SUBTOTAL			6	9
Allocated[c]				
Filing	34	66	1	1
Telephone	2	3	0	0
Conversation	15	30	0	1
Transit	4	9	0	1
Missing	3	5	0	0
SUBTOTAL	58	113	1	3
TOTAL	283	552	7	12

[a]See Table J-4.

[b]See Table J-5.

[c]See Tables J-4 and J-5.

Table J-7

ALLOCATION OF OBSERVATIONS OF CONVENTIONAL FINANCIAL UNIT ACTIVITY TO MONTHLY AND CONVENTIONAL REPORTING IN THE FOOD STAMP PROGRAM (JANUARY/FEBRUARY)

	CASEWORK		NON-CASEWORK	
	CONVEN-TIONAL	MONTHLY REPORTING	CONVEN-TIONAL	MONTHLY REPORTING
Observed[a]				
MSR inquiry	0	0		
Edit forms	13	29		
Data input	37	82		
SUBTOTAL	50	111		
Allocated[a]				
Other non-forms	32	72		
Out-of-office	2	6		
SUBTOTAL	34	78		
Observed[b]				
General activity manuals			0	0
Staff meetings			1	1
Other			1	2
SUBTOTAL			2	3
Allocated[c]				
Filing	13	28	0	0
Telephone	1	1	0	0
Conversation	6	13	0	0
Transit	1	4	0	0
Missing	1	2	0	0
SUBTOTAL	22	48	0	0
TOTAL	106	237	2	3

Table J-8

ADMINISTRATIVE COST ESTIMATES PER CASE MONTH
FOR MONTHLY REPORTING FINANCIAL UNIT BY MEASUREMENT PERIOD[a]

	MONTHLY REPORTING UNIT	PROPORTION OF CONVENTIONAL REPORTING UNIT	TOTAL
January/February			
Casework	.3527	.0992	.4519
Non-casework	.0040	.0013	.0053
April/May			
Casework	.3064	.1338	.4402
Non-casework	.0415	.0281	.0696
July/August			
Casework	.3456	.1125	.4581
Non-casework	.0499	.0878	.1377

[a]Estimates include only direct labor. See Appendix E for total estimates which include non-work and fringe benefits.

Table J-9

ADMINISTRATIVE COST ESTIMATES PER CASE MONTH
FOR CONVENTIONAL REPORTING FINANCIAL UNIT BY MEASUREMENT PERIOD[a]

	CASEWORK	NON-CASEWORK
January-February	$.0879	$.0017
April-May	.0945	.0195
July-August	.0980	.0763

[a]Estimates include only direct labor. See Appendix E for total estimates which include non-work and fringe benefits.

APPENDIX K

COMPUTING LABOR COSTS FOR CLERICAL STAFF SUPPORT IN THE CONVENTIONAL TREATMENT GROUP

APPENDIX K

COMPUTING LABOR COSTS FOR CLERICAL STAFF SUPPORT IN THE CONVENTIONAL TREATMENT GROUP

The conventional treatment group at Southeast District Office did not directly employ unit clerks as did the two experimental units. However, clerical staff at the office performed various support services for caseworkers and supervisors in the conventional group. Consequently, to arrive at balanced administrative cost estimates, it was necessary to estimate labor costs for clerical services to conventional staff. This appendix presents the bases for the estimates used in this analysis.

Five clerks were assigned to the conventional unit.[1] Because these personnel were not observed during the random moment surveys, an estimate of hours worked was derived from observations of clerks in the experimental groups. Thus,

$$H_C = H_E + H_V/P_E + P_V\ (P_C)$$

where

H_E = observed work hours for clerks in the experimental group;[2]

H_V = observed work hours for clerks in the variant group;

P_E = number of clerks observed in the experimental group;

P_V = number of clerks observed in the variant group;

P_C = number of clerks assigned to the conventional group;

H_C = estimated number of work hours for clerks in the conventional group.

If we substitute observations of experimental clerks,[3] the equation is:

---

[1] Information obtrained from the Monthly Reporting Project Coordinator at Southeast District Office.

[2] Total for three measurement periods.

[3] See Tables B-4, B-5, and B-6.

564 + 628/5 + 6 x 5 = 541.82 hours per measurement period.

This estimate required further adjustment because the conventional treatment group included caseworkers and supervisors whose caseloads were not part of the experiment (NPA-food stamps, for example) and who were not included in the random moment observations. To adjust for the fact that clerks also performed services for these personnel, we calculated the AFDC proportion the total caseload in the conventional group:

2,810 average AFDC caseload/6,393 average overall caseload
= .4395

This proportion was then applied to the estimate of work hours:

.4395 (541.82) = 238 hours per measurement period for AFDC

The algorithm for allocating these hours to redetermination/recertification, interim case maintenance, and non-casework was based on observed work activity for conventional group caseworkers. A review of observed work activity for caseworkers and unit clerks in the experimental groups showed that as might be expected for a support service, clerical work activity reflected the work activities of caseworkers. For example, during the January/February measurement period, observations for conventional caseworkers were:

	Number	Percent
Redetermination/Recertification	754	.5314
Interim case maintenance	491	.3460
Non-case	174	.1226
TOTAL	1,419	

So, for conventional clerks for January/February, estimated total work hours were:

.37[1](238) = 88 hours

[1]Based on caseworker observations of program-specific activity. See Table 2-2.

Total work hours were disaggregated:

RD/RC	.5314 (88)	= 47 hours
Interim	.3460 (88)	= 30 hours
Non-case	.1226 (88)	= 11 hours

To arrive at dollar estimates, the hours allocations were multiplied by the average wage rate for clerks,[1] then divided by the estimated case months for the measurement period:

47 ($5.26)/2,335[2]

$.1059 estimated per-case-month-cost for recertification tasks for clerks in January/February

Table K-1 displays estimated clerical costs for the conventional treatment group for the three measurement periods. Similar information for clerks in the experimental and variant units appears in Appendix E.

Table K-1

ESTIMATED LABOR COSTS FOR CONVENTIONAL CLERKS BY MEASUREMENT PERIOD

	REDETERMINATION/ RECERTIFICATION	INTERIM	NON-CASE
January/February	$.1059	$.0676	$.0248
April/May	.0893	.0235	.0330
July/August	.1589	.0415	.0576

[1] See Appendix M for information on wage rates.

[2] See Appendix B for information on case months.

APPENDIX L

CALCULATING NON-CASEWORK COSTS

APPENDIX L

CALCULATING NON-CASEWORK COSTS

The non-casework cost is a measure of the dollar value of time spent on general work activities, that is work activities which do not directly involve the provision of case services. Examples include staff meetings, organization of work, and telephone inquiries regarding general policies. This rate is computed per dollar of direct caseworker costs.

Calculations for non-casework costs for the three worker-classes in the experimental unit for January/February are presented here as an example of the procedures used in this analysis. Non-case costs for all worker classes by treatment group by measurement period are reported in Table L-1.

The first requirement for this computation is a count of the total number of observations for all relevant non-case activities. Second, these counts in conjunction with counts of work observations are used to estimate the number of hours directed toward non-case work time. Finally, these time estimates are expressed in dollar terms to obtain cost rates.

Table L-2 displays actual and allocated observations of non-case activity for the three classes of experimental treatment group workers in the Food Stamp Program in January/February. Step two of this procedure can be displayed as:

$$(O_{NCCW}/O_{CW})\ (H_{CW})$$

where

O_{NCCW} = total observations (actual and allocated) of caseworkers engaged in non-case work activities;

O_{CW} = total work observations of caseworkers;

H_{CW} = total work hours for caseworkers.

$$(99/3{,}001)\ (1{,}134)$$

$$= (.033)\ (1{,}134)$$

= 37 hours of non-case activity.

Table L-1

NON-CASE COSTS BY WORKER CLASS BY TREATMENT GROUP
FOR THE FOOD STAMP PROGRAM

	EXPERIMENTAL	VARIANT	CONVENTIONAL
January/February			
Caseworkers	$.1328	$.5600	$.2324
Supervisors	.1951	.1965	.0950
Clerks	.0362	.0159	.0248
Financial[a]	.0053	.0053	.0017
April/May			
Caseworkers	$.5104	$.5171	$.2910
Supervisors	.2241	.1382	.1085
Clerks	.0670	.0436	.0330
Financial[a]	.0696	.0696	.0195
July/August			
Caseworkers	$1.2520	$.8787	$.5045
Supervisors	.3140	.2910	.1803
Clerks	.0135	.0333	.0415
Financial[a]	.1377	.1377	.0763

[a]The non-casework costs for the experimental financial unit reported in this table have been adjusted to include non-case costs incurred by conventional financial personnel while performing monthly reporting tasks.

Table L-2

ACTUAL AND ALLOCATED OBSERVATIONS OF NON-CASEWORK ACTIVITY
BY WORKER CLASS IN THE FOOD STAMP PROGRAM[a]
EXPERIMENTAL GROUP, JANUARY/FEBRUARY

	GENERAL ACTIVITY (OBSERVED)						GENERAL ACTIVITY (ALLOCATED)					
	UNIT MANAGE-MENT[b]	PLAN-NING	MAN-UALS	STAFF MEET-INGS	TRAIN-ING	OTHER	FIL-ING	TELE-PHONE	CONVER-SATION	IN-TRANSIT	MIS-SING	TOTAL NON-CASE OBSERVATIONS
Caseworkers	NA	0	3	8	0	58	8	10	11	0	1	99
Supervisors	40	0	9	12	0	2	5	17	29	0	3	117
Unit clerks	NA	1	9	2	0	21	3	1	3	0	1	41
Financial MR	NA	0	1	6	0	2	0	0	0	0	0	9

[a]Observations in this table have been adjusted to apply only to the Food Stamp Program.

[b]Casework supervisors only.

The final computation step can be expressed as:

$$H_{NCCW} \ (W_{CW})/M$$

where

H_{NCCW} = hours caseworkers engaged in non-casework activity;

W_{CW} = weighted wage rate for caseworkers;

M = estimated case months for measurement period.

(37) ($8.35)/2,327 = .1328 per case month

Calculations for supervisors and clerks are similar.

Supervisors

(117/527) (195) = (.2220) (195) = 43 hours

(43) ($10.56)/2,327 = $.1951 per case month

Clerks

(41/543) (206) = (.0755) (206) = 16 hours

(16) ($5.26)/2,327 = $.0362 per case month

Thus, non-case costs for the experimental treatment group in January/February are:

Caseworkers	$.1328
Supervisors	.1951
Unit clerks	.0362
	.3641

At Southeast District Office, financial unit costs must also be included. The financial unit non-case costs are calculated using the same procedures. However, there is one modification that must be noted: the calculation is based on the sum of case months for both the experimental and variant offices. Hence,

(9/1,595) (608) = (.0056) (608) = 3 hours

(3) ($6.22)/4,638 = $18.67/4,638 = $.004 per case month

Thus, total non-case costs for the experimental group in January/February are: $.3681 or $.37 per case month.

APPENDIX M

COMPUTING WEIGHTED WAGE RATES

APPENDIX M

COMPUTING WEIGHTED WAGE RATES

At Southeast District Office, actual wages paid to workers vary according to the grade and step level for each position. Because of this variation, it is necessary to compute an average wage. A straightforward basis for computing a single wage rate for each worker-class, which reflects within class variations, is to compute a weighted wage rate. The weights are based on the relative frequency of workers in each of the designated grade-step positions.

Information on position title and actual salary during the two observation periods on all of the workers in the three treatment groups was obtained from the Illinois Budgeted Position Inventory System. Data on grades and steps were acquired from the Department of Public Aid's Schedule of Rates.

Calculations are presented below for each worker class in the experimental treatment group during the January/February observation period. Hourly wage rates were calculated on the basis of 260 paid work days per year which equal 1,950 hours:

(260) (7.5) = 1,950 paid hours per year

Annual salaries were computed from monthly salary information available from the Illinois Budget Position Inventory System. For example, for supervisors in the experimental treatment group, both of whom are PA Caseworkers, Grade V, Step 7:

12 ($1,671) = $20,052 annual salary

$20,052/1,950 = $10.28/hour

Wage rates were calculated in a similar fashion for all other workers in the experimental group. (See Table M-1.)

Table M-1

HOURLY WAGE RATES AND NUMBER OF PERSONNEL BY JOB TITLE, GRADE, AND STEP FOR THE EXPERIMENTAL TREATMENT GROUP (JANUARY/FEBRUARY)

	STEP LEVEL						
TITLE/GRADE	1	2	3	4	5	6	7
Caseworkers (N=11)							
II		6.46 (1)			7.20 (1)		
III				7.96 (1)	8.26 (4)	8.56 (2)	8.86 (2)
Supervisors (N=2)							
V							10.28 (2)
Clerks (N=2)							
II	4.96 (1)	5.10 (1)					

The experimental office employed 11 caseworkers during the January/February observation period, so weights are computed as the relative frequency of grade/step divided by 11. Thus, using the wage rates from Table M-1:

.091 (6.46) + .091 (7.20) + .091 (7.96) + .364 (8.26)
+ .182 (8.56) + .182 (8.86)

= .588 + .655 + .724 + 3.007 + 1.558 + 1.613

= $8.14 weighted wage rate/caseworkers

There were two unit clerks, thus:

.5 (4.96) + .5 (5.10)

= 2.48 + 2.55

= $5.03 weighted wage rate for unit clerks

Weighted hourly wage rates for each worker class by treatment group by measurement period are reported in Table M-2. For this analysis, weighted average hourly wage rates were applied. That is, for each class of workers, a wage rate was calculated over time across treatment groups. The method described above was used for these calculations. These wage rates are also displayed in Table M-2.

Table M-2

HOURLY WAGE RATES

	JANUARY-FEBRUARY	APRIL-MAY	JULY-AUGUST[a]	OVERALL AVERAGE[b]
Experimental				
Caseworkers	8.14	7.69[c]	9.06	8.35
Supervisors	10.28	10.28	11.11	10.56
Unit Clerks	5.03	5.03	5.51	5.22
Variant				
Caseworkers	7.76	7.95[d]	8.69	8.35
Supervisors	10.28	10.28	11.11	10.56
Unit Clerks	5.12	5.12	5.93	5.22
Conventional				
Caseworkers	8.15	8.12[e]	8.97	8.35
Supervisors	10.28	10.28	11.11	10.56
Financial[f]				
MR	6.00	6.00	6.51	6.22
Conventional	6.13	6.03[g]	6.66	

[a]Hourly wage rates increased for the July/August period because annual raises were effective July 1.

[b]Overall wage rates average hourly rates for each class of workers across treatment groups and time periods.

[c]A senior worker was reassigned during May, with a junior caseworker taking the caseload. Plus, in January, a "floater" was assigned to this group bringing the caseworker total to eleven for the first observation period and ten for the second period.

[d]Several step promotions in this group led to slightly higher wages in May.

[e]A senior caseworker resigned in February and was replaced by a more junior worker which slightly lowered the average wage.

[f]Includes clerks and data input operators.

[g]When the full complement of workers was present, several junior clerks were added thus lowering the average wage.

APPENDIX N

INTERVIEW AND TELEPHONE LOGS

APPENDIX N

INTERVIEW AND TELEPHONE LOGS

Appendix D explained most of the algorithms used to allocate observations to specific tasks. In that appendix, we referred to the use of data from interview and telephone logs. These logs were maintained by workers at Southeast District Office. Interview logs were kept daily. Telephone logs were maintained on half of the observation days. Copies of these logs appear as Exhibits N-1 and N-2 in this appendix. The objective in maintaining these records was to obtain data connecting length of interview or call to the reason for the contact.

Interview Logs

When we attempted to prepare cross-tabulations on interview log entries, we found that most entries were incomplete and thus not as useful as we had hoped. Consequently, we were unable to use any interview log data from the January/February measurement period. There were problems with the July/August logs also. However, data from the April/May measurement period for caseworkers in the experimental and variant treatment groups did prove to be helpful.[1] We were able to disaggregate the interview data between the monthly reporting task and all interim tasks, and within these two categories we could obtain the frequencies of interviews by length of interview. We then assigned weights reflecting interview length. (See Tables N-1 and N-2.) The weighted frequencies were used to determine the proportions of logged interviews to assign to the two major tasks. These proportions were then applied to the observations of interviews, thus, for the experimental group:

Food Stamp Interviews = 46

.6654 (46) = 31 Monthly Reporting

.3346 (46) = 15 Interim

---

[1] Data from logs were not needed to allocate interview observations for conventional caseworkers because observers recorded interviews as redetermination/recertification or other.

Exhibit N-1

ILLINOIS DEPARTMENT OF PUBLIC AID
Monthly Reporting Project
Interview Log
R-27 (04/82)

Date: ___/___/___

Location: _____

OFFICE/DISTRICT: _____

PLEASE CHECK (✓) THE APPROPRIATE COLUMNS FOR EACH INTERVIEW THROUGHOUT THE DAY. SEE INSTRUCTIONS ON COMPANION PAGE FOR COMPLETING THE LOG.

INTER-VIEW #	INTERVIEWER IS			AFDC CLIENT?		INTERVIEW IS RELATED TO		REASON FOR INTERVIEW (CHECK ALL THAT APPLY)						APPROPRIATE LENGTH			
	IM CW	IM CWS	UNIT CLERK	YES	NO	AFDC	FS	Monthly Reporting/ Redet./ Recert.	Annual Eligib. Interv.	Change Address	Lost/Stolen Warrant/ATP	Earned Income	Other	under 2 min.	2-5 min.	5-10 min.	over 10 min.
1																	
2																	
3																	
4																	
5																	
6																	
7																	
8																	
9																	
10																	
11																	
12																	
13																	
14																	
15																	
16																	
17																	
18																	
19																	
20																	
21																	
22																	
23																	
24																	
25																	
26																	
27																	
28																	
29																	
30																	

Exhibit N-2

ILLINOIS DEPARTMENT OF PUBLIC AID
Monthly Reporting Project
Telephone Log
R-26 (04/82)

Office/District: _____ Date: ___/___/___

PLEASE CHECK (✓) THE APPROPRIATE COLUMNS FOR EACH CALL YOU MAKE OR RECEIVE THROUGHOUT THE DAY. ALSO, PLEASE BE SURE TO COMPLETE THE REVERSE SIDE OF THIS FORM. SEE INSTRUCTIONS ON COMPANION PAGE FOR COMPLETING THE LOG.

CALL #	RELATED TO WORK		CONVERSATION IS WITH			PROGRAM RELATION		REASON FOR CALL (CHECK ALL THAT APPLY)					APPROXIMATE LENGTH				
	YES	NO	Client	DPA	Other	AFDC	FS	Client in office	Monthly Reporting ********** Rede./ Recert.	Earned Income	Report Change	Other	under 30 sec.	under 2 min.	under 5 min.	over 5 min.	
1																	
2																	
3																	
4																	
5																	
6																	
7																	
8																	
9																	
10																	
11																	
12																	
13																	
14																	
15																	
16																	
17																	
18																	
19																	
20																	
21																	
22																	
23																	
24																	
25																	
26																	
27																	
28																	
29																	
30																	

Table N-1

CASEWORKER INTERVIEWS: ALLOCATION TO
MONTHLY REPORTING AND INTERIM ACTIVITIES
EXPERIMENTAL TREATMENT GROUP

LENGTH OF INTERVIEW	OBSERVED FREQUENCY	UNIT WEIGHTS	WEIGHTED FREQUENCY	PROPORTION
Monthly Reporting				
Less than 2 minutes	1	.0313	.03	
2-5 minutes	18	.0781	1.41	
5-10 minutes	34	.1563	5.31	
More than 10 minutes	44	.2344	10.31	
TOTAL	97		17.06	.6654
Interim				
Less than 2 minutes	7	.0313	.22	
2-5 minutes	34	.0781	2.66	
5-10 minutes	23	.1563	3.59	
More than 10 minutes	9	.2344	2.11	
TOTAL	73		8.58	.3346

Table N-2

CASEWORKER INTERVIEWS: ALLOCATION TO MONTHLY REPORTING AND INTERIM ACTIVITIES VARIANT TREATMENT GROUP

LENGTH OF INTERVIEW	OBSERVED FREQUENCY[a]	UNIT WEIGHTS	WEIGHTED FREQUENCY	PROPORTION
Monthly Reporting				
Less than 2 minutes	3	.0313	.0939	
2-5 minutes	8	.0781	.6248	
5-10 minutes	17	.1563	2.6571	
More than 10 minutes	25	.2344	5.8600	
TOTAL	53		9.2358	.6618
Interim				
Less than 2 minutes	1	.0313	.0313	
2-5 minutes	18	.0781	1.4058	
5-10 minutes	6	.1563	.9378	
More than 10 minutes	10	.2344	2.3440	
TOTAL	35		4.7189	.3382

[a]Annual Eligibility Interviews are excluded. Such observations were assumed to be part of monthly reporting activities.

These observations were allocated to subtasks using proportions obtained from at-desk forms frequencies. (See Appendix D.)

We felt that the April/May interview logs most probably reflected a fairly steady state situation. Thus, these proportions were applied to all three measurement periods.

Telephone Logs

For the first two measurement periods, data obtained from telephone logs were more complete than the information acquired from interview logs. We were able to compute weighted frequencies for caseworkers in all treatment groups for both measurement periods. (See attached tables).[1] Unfortunately, telephone logs for the July/August observation period were mislabled. However, we were able to compute weighted frequencies across all classes of workers. (See Tables N-5, N-8, and N-11.) We averaged these frequencies with the caseworker frequencies computed for the first two measurement periods to arrive at average frequencies which were applied in this analysis. Average proportions appear in Table N-12. Actual allocations of telephone observations are in Appendix E.

[1] Telephone logs for unit clerks and supervisors were generally incomplete. Thus, the algorithm for allocation for these worker classes was based on observations of at-desk-forms tasks. (See Appendix D.)

Table N-3

ALLOCATION OF TELEPHONE CALLS
CASEWORKERS, EXPERIMENTAL TREATMENT GROUP
(JANUARY/FEBRUARY)

LENGTH OF INTERVIEW	OBSERVED FREQUENCY	UNIT WEIGHTS	WEIGHTED FREQUENCY	PROPORTION
Monthly Reporting				
Less than 30 seconds	332	.02	6.64	
Less than 2 minutes	372	.08	29.76	
Less than 5 minutes	239	.16	38.24	
More than 5 minutes	110	.24	26.40	
TOTAL	1,053		101.04	.6314
Interim				
Less than 30 seconds	645	.02	12.90	
Less than 2 minutes	264	.00	21.12	
Less than 5 minutes	99	.16	15.84	
More than 5 minutes	38	.24	9.12	
TOTAL	1,046		58.98	.3686

Table N-4

ALLOCATION OF TELEPHONE CALLS
CASEWORKERS, EXPERIMENTAL GROUP
(APRIL/MAY)

LENGTH OF INTERVIEW	OBSERVED FREQUENCY	UNIT WEIGHTS	WEIGHTED FREQUENCY	PROPORTION
Monthly Reporting				
Less than 30 seconds	218	.02	4.36	
Less than 2 minutes	348	.08	27.84	
Less than 5 minutes	269	.16	43.04	
More than 5 minutes	126	.24	30.24	
TOTAL	961		105.48	.7261
Interim				
Less than 30 seconds	277	.02	5.54	
Less than 2 minutes	156	.00	12.48	
Less than 5 minutes	88	.16	14.08	
More than 5 minutes	32	.24	7.68	
TOTAL	553		39.78	.2739

Table N-5

ALLOCATION OF TELEPHONE CALLS
CASEWORKERS, EXPERIMENTAL TREATMENT GROUP
(JULY/AUGUST)

LENGTH OF INTERVIEW	OBSERVED FREQUENCY	UNIT WEIGHTS	WEIGHTED FREQUENCY	PROPORTION
Monthly Reporting				
Less than 30 seconds	126	.02	2.52	
Less than 2 minutes	525	.08	42.00	
Less than 5 minutes	252	.16	40.32	
More than 5 minutes	109	.24	26.16	
TOTAL	1,012		111.00	.8408
Interim				
Less than 30 seconds	71	.02	1.42	
Less than 2 minutes	86	.00	6.88	
Less than 5 minutes	42	.16	6.72	
More than 5 minutes	25	.24	6.00	
TOTAL	224		21.02	.1592

Table N-6

ALLOCATION OF TELEPHONE CALLS
CASEWORKERS, VARIANT GROUP
(JANUARY/FEBRUARY)

LENGTH OF CALL	OBSERVED FREQUENCY[a]	UNIT WEIGHTS	WEIGHTED FREQUENCY	PROPORTION
Monthly Reporting				
Less than 30 seconds	85	.02	1.70	
Less than 2 minutes	266	.08	21.28	
Less than 5 minutes	135	.16	21.60	
More than 5 minutes	94	.24	22.56	
TOTAL	581		67.14	.5379
Interim				
Less than 30 seconds	308	.02	6.16	
Less than 2 minutes	202	.00	16.16	
Less than 5 minutes	92	.16	14.72	
More than 5 minutes	86	.24	20.64	
TOTAL	688		57.68	.4621

[a]Annual Eligibility Interviews are excluded. Such observations were assumed to be part of monthly reporting activities.

Table N-7

ALLOCATION OF TELEPHONE CALLS
CASEWORKERS, VARIANT GROUP
(APRIL/MAY)

LENGTH OF CALL	OBSERVED FREQUENCY[a]	UNIT WEIGHTS	WEIGHTED FREQUENCY	PROPORTION
Monthly Reporting				
Less than 30 seconds	36	.02	.72	
Less than 2 minutes	243	.08	19.44	
Less than 5 minutes	93	.16	14.88	
More than 5 minutes	91	.24	21.84	
TOTAL	463		56.88	.4557
Interim				
Less than 30 seconds	181	.02	3.62	
Less than 2 minutes	216	.00	17.28	
Less than 5 minutes	147	.16	23.52	
More than 5 minutes	98	.24	23.52	
TOTAL	642		67.94	.5443

[a]Annual Eligibility Interviews are excluded. Such observations were assumed to be part of monthly reporting activities.

Table N-8

ALLOCATION OF TELEPHONE CALLS
CASEWORKERS, VARIANT GROUP
(JULY/AUGUST)

LENGTH OF CALL	OBSERVED FREQUENCY[a]	UNIT WEIGHTS	WEIGHTED FREQUENCY	PROPORTION
Monthly Reporting				
Less than 30 seconds	35	.02	.70	
Less than 2 minutes	320	.08	25.60	
Less than 5 minutes	61	.16	9.76	
More than 5 minutes	67	.24	16.08	
TOTAL	483		52.14	.6154
Interim				
Less than 30 seconds	13	.02	.26	
Less than 2 minutes	62	.00	4.96	
Less than 5 minutes	108	.16	17.28	
More than 5 minutes	42	.24	10.08	
TOTAL	225		32.58	.3846

[a]Annual Eligibility Interviews are excluded. Such observations were assumed to be part of monthly reporting activities.

Table N-9

ALLOCATION OF TELEPHONE CALLS
CASEWORKERS, CONVENTIONAL GROUP
(JANUARY/FEBRUARY)

LENGTH OF CALL	OBSERVED FREQUENCY	UNIT WEIGHTS	WEIGHTED FREQUENCY	PROPORTION
Redetermination/ Recertification				
Less than 30 seconds	6	.02	.12	
Less than 2 minutes	18	.08	1.44	
Less than 5 minutes	14	.16	2.24	
More than 5 minutes	15	.24	3.60	
TOTAL	53		7.40	.0911
Interim				
Less than 30 seconds	506	.02	10.12	
Less than 2 minutes	312	.00	24.96	
Less than 5 minutes	121	.16	19.36	
More than 5 minutes	97	.24	19.40	
TOTAL	1,036		73.84	.9089

Table N-10

ALLOCATION OF TELEPHONE CALLS
CASEWORKERS, CONVENTIONAL GROUP
(APRIL/MAY)

LENGTH OF CALL	OBSERVED FREQUENCY	UNIT WEIGHTS	WEIGHTED FREQUENCY	PROPORTION
Redetermination/ Recertification				
Less than 30 seconds	20	.02	.40	
Less than 2 minutes	16	.08	1.28	
Less than 5 minutes	10	.16	1.60	
More than 5 minutes	7	.24	1.68	
TOTAL	53		4.96	.0589
Interim				
Less than 30 seconds	112	.02	2.24	
Less than 2 minutes	363	.00	29.00	
Less than 5 minutes	182	.16	29.12	
More than 5 minutes	79	.24	18.96	
TOTAL	736		79.32	.9411

Table N-11

ALLOCATION OF TELEPHONE CALLS
CASEWORKERS, CONVENTIONAL GROUP
(JULY/AUGUST)

LENGTH OF CALL	OBSERVED FREQUENCY	UNIT WEIGHTS	WEIGHTED FREQUENCY	PROPORTION
Monthly Reporting				
Less than 30 seconds	5	.02	.10	
Less than 2 minutes	7	.08	.56	
Less than 5 minutes	4	.16	.64	
More than 5 minutes	0	.24	0.00	
TOTAL	16		1.30	.0210
Interim				
Less than 30 seconds	202	.02	4.04	
Less than 2 minutes	205	.00	16.40	
Less than 5 minutes	160	.16	25.60	
More than 5 minutes	61	.24	14.64	
TOTAL	628		60.68	.9790

Table N-12

OBSERVED AND AVERAGE PROPORTIONS
FOR ALLOCATING TELEPHONE
OBSERVATIONS FOR CASEWORKERS

	OBSERVED PROPORTION	
	MONTHLY REPORTING	INTERIM
Experimental		
January/February	.6314	.3686
April/May	.7261	.2739
July/August	.8408	.1592
Average	.7328	.2672
Variant		
January/February	.5379	.4621
April/May	.4557	.5443
July/August	.6154	.3846
Average	.5363	.4637
	Redetermination/ Recertification	
Conventional		
January/February	.0911	.9089
April/May	.0589	.9411
July/August	.0210	.9790
Average	.0570	.9430

APPENDIX O

ESTIMATING INDIRECT ADMINISTRATIVE COSTS

APPENDIX O

ESTIMATING INDIRECT ADMINISTRATIVE COSTS

Indirect administrative cost estimates are composed of intake costs; costs for local office administration; and expenditures for state, regional, and local administration and overhead. This appendix separately addresses the estimation of each component of indirect administrative costs.

Intake Cost Estimates

The estimation of intake costs can be expressed as:

$$UI = I/CM$$

where

UI = unit intake cost;
I = total intake cost (for the AFDC/food stamp caseload);
CM = case months.

Total intake costs are composed of personnel and data processing costs. Using salary information from the Illinois Budgeted Position Inventory System and SEDO staff lists, position and salary rosters for intake staff were compiled for the three measurement periods. Total intake personnel costs are displayed in Table O-1.

These figures incorporate all intake personnel costs at SEDO and required adjustment for application to the AFDC/FS caseload. Adjustments were based on IDPA Monthly Reports of Application Activity. Table O-2 shows total, AFDC, and average application activity for January, February, April, May, July, and August.

The average ratio between total and AFDC application activities was used to estimate the proportion of average total intake personnel costs to allocate to the AFDC program. Thus,

Table O-1

INTAKE PERSONNEL COSTS BY MEASUREMENT PERIOD

	JANUARY/ FEBRUARY	APRIL/ MAY	JULY AUGUST	AVERAGE
Intake personnel costs				
Salaries	$79,363	$78,134	$79,540	$79,012
Fringe benefits	6,349	6,251	6,363	6,321
AFDC intake personnel costs				
Salaries	$62,935	$61,960	$63,075	$62,656
Fringe benefits	5,035	4,957	5,046	5,013

Table O-2

APPLICATION ACTIVITY BY MONTH AT SEDO

	JANUARY	FEBRUARY	APRIL	MAY	JULY	AUGUST	AVERAGE
Applications	1,126	1,027	1,101	982	942	1,107	1,048
AFDC applications	839	794	833	673	845	1,000	831
Ratio of AFDC/ total applications	.7451	.7731	.7566	.6853	.8970	.9033	.7930

Total average intake personnel costs (January/February)	=	$79,012.00
		x
Average ratio of AFDC to total applications	=	.7930
Average AFDC intake personnel costs	=	$62,656.00

The same procedure was applied to estimate average fringe benefit costs which are $5,013.

Data processing costs for AFDC intake are added to the personnel costs. Calculation of data processing estimates is explained in Appendix I. Average transactions per month for AFDC intake are 1,409, and the total data processing cost is $76.08. To arrive at a per-case-month cost, average case months must be estimated. These figures are presented in Table O-3. Average AFDC case months are estimated at 8,333. So, to complete the equation presented at the beginning of this appendix:

$62,656 + $5,013 + $76/8,333
= $8.13 AFDC intake costs per case month

In this analysis, 42 percent (average food stamp observations) of these costs were allocated to the Food Stamp Program:

.42 ($8.13) = $3.41 food stamp intake costs per case month

Local Administrative Costs

For this analysis, local administrative estimates include only personnel costs. Using the salary and personnel information sources cited earlier in this appendix, personnel costs were calculated for administrative and services staff at Southeast District Office for the three measurement periods. Table O-4 displays this information. To assign a portion of these

Table O-3

AFDC CASELOAD ESTIMATES BY MONTH, SOUTHEAST DISTRICT OFFICE

	EXPERIMENTAL	VARIANT	CONVENTIONAL	TOTAL
1982				
January	2,728	2,774	2,831	8,333
February	2,771	2,777	2,835	8,383
March	2,845	2,820	2,809	8,474
April	2,839	2,792	2,791	8,422
May	2,774	2,730	2,787	8,291
June	2,691	2,664	2,779	8,134
July	2,676	2,583	2,778	8,037
August	2,747	2,635	2,815	8,197
September	2,773	2,742	2,839	8,354
October	2,939	2,929	2,838	8,706
Average	2,778	2,745	2,810	8,333

Table O-4

PERSONNEL COSTS FOR LOCAL ADMINISTRATION AT SEDO
BY MEASUREMENT PERIOD

	ADMINISTRATIVE	SERVICES	TOTAL	
January/February				
Salaries	$33,062	$14,598	$47,660	$51,473
Fringe benefits	2,645	1,168	3,813	
April/May				
Salaries	38,844	14,706	49,550	53,519
Fringe beenfits	2,788	1,176	3,964	
July/August				
Salaries	37,393	14,168	51,561	55,686
Fringe benefits	2,992	1,133	4,125	
Average				
Salaries	35,100	14,491	49,591	53,558
Fringe benefits	2,808	1,159	3,967	

costs to AFDC, average proportion of AFDC caseload to total caseload was computed. Table O-5 presents these data. Thus:

.6953 ($35,100) = $24,405 average local administrative costs for AFDC by month

To arrive at a per case month cost:

$24,405/8,333 = $2.93 per case month for local administrative costs for the AFDC program

Again, applying the 42 percent allocational algorithm, $1.23 per food stamp case month is assigned for local administrative costs.

Similar procedures are applied to services salaries and to fringe benefit estimates. Per-case-month costs are reported in Table O-9.

Non-personnel costs for Southeast District Office are based on expenditure data provided by IDPA's Bureau of Fiscal Operations. Table O-6 reports these data. The average cost is first adjusted for caseload ratio:

.6953 ($24,821) = $17,258

This figure is divided by average case months:

$17,258/8.333 = $2.07 AFDC local administrative costs per case month

To adjust for application to the Food Stamp Program, the 42 percent rule-of-thumb is used:

.42 ($2.07) = $.87 per-food-stamp-case month

State, Regional, and Local Administrative Costs

This estimate of administrative costs is disaggregated between personnel expenditures and non-personnel expenditures (e.g., postage, office supplies, rent, and so on). In addition to salaries of state and regional

Table O-5

OVERALL AND AFDC CASELOAD BY MONTH
AT SOUTHEAST DISTRICT OFFICE

	AFDC	OVERALL	RATIO
1982			
January	8,333	11,970	.6962
February	8,383	12,068	.6946
March	8,474	12,198	.6947
April	8,422	12,066	.6980
May	8,291	11,861	.6990
June	8,134	11,666	.6972
July	8,037	11,560	.6952
August	8,197	11,745	.6979
September	8,354	11,834	.7059
October	8,706	12,293	.7082
November	NA	12,230	-
December	NA	12,323	-
Average	8,333	11,985	.6953

Table O-6

NON-PERSONNEL EXPENDITURES BY MONTH FOR
SOUTHEAST DISTRICT OFFICE

1981		
	September	$28,532
	October	22,456
	November	28,670
	December	26,192
1982		
	January	$29,171
	February	23,305
	March	21,527
	April	28,932
	May	21,224
	June	19,260
	July	28,592
	August	22,476
	September	22,341
	Average	24,821

administrators, this category encompasses expenditures for quality control personnel, staff training, and the like.

The information on which these estimates are based was again provided by IDPA's Bureau of Fiscal Operations. Line items already in the calculations (e.g., data processing costs at Southeast District Office) are excluded. Table O-7 displays cost allocations.

These costs were allocated to the AFDC Program and to Southeast District Office based on caseload ratios. See Table O-8. For example, costs to personnel for Quality Control for the Illinois Department of Public Aid are $147,284. Thus,

.4822 ($147,284) = $71,020 state average costs per month for Quality Control are allocated to the AFDC program;

.0365 ($71,020) = $2,592 state per month average costs for Quality Control allocated to AFDC at SEDO.

Again, to obtain per case month estimates, the figure above is divided by average caseload:

$2,592/8,333 = $.31 per case month

Finally, to adjust this estimate to apply only to the Food Stamp Program, the cost is multiplied by 42 percent:

.42 ($.31) = $.13 per case month in state personnel costs for Quality Control allocated to the Food Stamp Program.

Table O-9 displays costs for each category.

Table O-7

BASIS FOR CALCULATING INDIRECT COSTS
(SEPTEMBER 1981 THROUGH SEPTEMBER 1982)

	PERSONNEL[a]	AFDC[b]	SEDO[c]	PER CM	NON-PERSONNEL	AFDC[b]	SEDO[c]	PER CM
Hearings	90,561	43,669	1,594	.19	25,291	12,195	445	.05
Quality control	147,284	71,020	2,592	.31	13,425	6,474	236	.03
Staff development	78,157	37,687	1,376	.17	32,989	15,907	581	.07
Information systems[d]	681,287	244,378	8,920	1.07	1,350,961	484,590	17,688	2.12
Other central office	1,327,998	640,361	23,373	2.80	454,522	219,171	8,000	.96
Group insurance				.85	-	-	-	-
				5.39				3.23

[a]Personnel costs include FB except for group insurance. Average cost per month.

[b]Based on ratio of average AFDC state caseload to average total public assistance caseload in Illinois. See Table O-8.

[c]Based on ratio of average AFDC caseload at Southeast District Office to average AFDC state caseload: 8,333/228,173 = .0365.

[d]Adjusted to exclude costs previously included in data processing estimates.

Table O-8

RATIO: AFDC/ADJUSTED STATE CASELOAD

	ADJUSTED TOTAL CASELOAD	AFDC	RATIO
January 1982	451,468	227,303	.5035
February	456,456	227,092	.4975
March	465,783	228,564	.4907
April	470,631	227,195	.4827
May	469,098	225,079	.4798
June	466,894	224,525	.4809
July	468,263	225,643	.4819
August	471,654	227,929	.4833
September	477,519	229,685	.4810
October	484,665	231,510	.4777
November	490,249	230,853	.4709
December	505,790	232,702	.4601
Average	473,206	228,173	.4822

Table O-9

TOTAL INDIRECT COSTS PER CASE MONTH

	PERSONNEL COSTS	NON-PERSONNEL COSTS	DATA PROCESSING	FRINGE BENEFITS	TOTAL	AFDC TOTAL	FOOD STAMP TOTAL (.42)
Intake	7.52	-	.014	.60	8.13	8.13	3.41
Local administration	-	2.07[a]	-	-	2.07		
1. Administration	2.93	-	-	.23	3.16		
2. Services	1.21			.10	1.31		
				TOTAL	6.54	6.54	2.75
Local administration food stamp only	.31			.02	.33	-	.33
Regional administration	.06[b]	.01	-	-	.07	.07	.03
State administration							
hearings	.19[b]	.05	-	-	.24		
Quality control	.31[b]	.03	-	-	.34		
Staff development	.17[b]	.07	-	-	.24		
Information systems	1.07[b]	2.12	-	-	3.19		
Other central	2.80[b]	.96	-	-	3.76		
Group insurance	.85	-	-	-	.85		
				TOTAL	8.62	8.62	3.62
					TOTAL	23.36	10.14

[a]Including intake.

[b]Includes fringe except for group insurance.