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HOUSING ALLOWANCES AND
ADMINISTRATIVE EFFICIENCY

G. Thomas Kingsley
Priscilla M. Schlegel

HOUSING ASSISTANCE SUPPLY EXPERIMENT

A RAND NOTE

This Note was prepared for the Office of Policy Development and Research, U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT, under Contract No. H-1789. Its views and conclusions do not necessarily reflect the opinions or policies of the sponsoring agency.



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Rand
SANTA MONICA, CA. 90406

PREFACE

This note was prepared for the Office of Policy Development and Research, U.S. Department of Housing and Urban Development (HUD). It examines administrative costs in the housing allowance programs operated as a part of the Housing Assistance Supply Experiment from 1974 through 1980.

The authors are indebted to many individuals who helped to prepare the data used in this research. Records on costs and workloads were provided by the housing allowance offices (HAOs) of Brown County, Wisconsin (Lars Larson, Director) and St. Joseph County, Indiana (Hollis Hughes, Director). In particular, we would like to thank Jarvis Woulf, Vice President for Financial Management in Brown County; and Timothy Corcoran, Deputy Director, and Wazir Chand, former Chief of Finance and Administration, in St. Joseph County, who with their directors, responded to many requests for special tabulations and helped us interpret all of the information assembled. Dianne Munley, Sarah J. Rich, and Larry Schlereth of Rand checked the data received from the HAOs and reformatted it for analytic use.

We are also indebted to W. Eugene Rizor of Rand, who provided helpful advice throughout the research, and to Richard Rettig and Ira S. Lowry of Rand, and Howard M. Hammerman of HUD, who with Rizor, reviewed earlier drafts and contributed valuable suggestions for improvement.

Finally, we owe special thanks to Luetta Pope, who did a superb job preparing the typescript and the many tables that appear throughout the text and in the appendixes.

SUMMARY

In the Housing Assistance Supply Experiment, housing allowance programs were established in Brown County, Wisconsin (metropolitan Green Bay), and St. Joseph County, Indiana (metropolitan South Bend). They made monthly payments directly to low- and moderate-income households to help them obtain adequate housing. All income-eligible renters and homeowners could enroll and live wherever they chose within the program area; but to receive assistance, their dwellings had to meet basic housing quality standards.

The experiment was conducted by The Rand Corporation under the sponsorship of the U.S. Department of Housing and Urban Development (HUD). Its central purpose was to test the effects of the housing-allowance approach on housing market conditions, but it also yielded a data base that permitted a more thorough technical analysis of program administration than is usually feasible in public programs.

In this note, we examine administrative efficiency in the allowance programs. We first define a system for measuring administrative cost per unit of service provided, then use the system to track changes in efficiency over time and examine its determinants. Finally, we draw lessons that should aid efficiency improvements in other programs that have similar administrative tasks to perform.

MEASURING EFFICIENCY

The two allowance programs were administered by housing allowance offices (HAOs): nonprofit corporations that were supervised by Rand as they operated the programs from 1974 through 1980. Both became the largest public assistance agencies in their communities, serving more recipients than even the local Aid to Families with Dependent Children (AFDC) programs. Together, in their first five years, they enrolled 29,800 households, disbursed 428,300 monthly allowance payment checks to those who met program housing requirements and, in process, spent \$13.6 million on administration (two-thirds of which went for personnel salaries and fringe benefits). To measure the yield from

these expenditures, an accounting system was developed that allocated costs among the following functions:

- Outreach: Using advertising and other techniques to inform eligibles that the assistance was available.
- Enrollment (or eligibility certification): Accepting applications and interviewing applicants to determine whether they were eligible, and if so, the amount of the payment they are entitled to receive; eligibility recertification: periodically updating information on household status and income, and revising eligibility and payment determinations accordingly.
- Housing certification and recertification: Evaluating participants' housing before they entered the program and periodically thereafter and, perhaps, offering services to help those in deficient housing repair their current units or move to other units so they could qualify for payments.
- Payments operations: Disbursing monthly payments to recipients.

For various study periods while the experiment was under way, we divided expenditures on each of these functions (and a number of more detailed subfunctions) by associated workload counts to determine costs per case processed. We then reassembled these costs to establish two summary measures: intake cost per new recipient (expenses on outreach, enrollment and housing certification required to bring one new recipient into the program) and maintenance cost per recipient-year (expenses on payments operations, eligibility recertification and housing recertification required to maintain a household in recipient status for one year).

COSTS OF CLIENT INTAKE AND MAINTENANCE

Because of a larger eligible population in its community, the St. Joseph County program had on average 62 percent more recipients than

the Brown County program. It was surprising, then, to find that the two summary cost measures defined above were very similar in the two sites at most points in the programs' history. Including all time periods for which we have data, St. Joseph County's maintenance costs and intake costs (after adjustment for local policy differences affecting outreach and services) differed from the comparable Brown County costs by less than 10 percent, on average. Given this similarity, we can use intersite averages to summarize outcomes (all costs in constant 1976 dollars):

- By the time both programs had reached steady-state conditions (mid-1977 through mid-1979), intake cost averaged \$194 per new recipient. Enrollment accounted for 53 percent of the total, housing certification for 34 percent, and outreach 13 percent.
- Steady-state maintenance cost averaged \$115 per recipient-year. Eligibility recertification accounted for 60 percent, housing recertification for 28 percent, operations for 12 percent.
- Both HAOs consistently improved their administrative efficiency even in the last three years of the experimental period. Between mid-1976 and the midpoint of the steady-state period, intake cost per new recipient declined by 10 percent per year, and maintenance cost per recipient-year declined by 8.2 percent per year.

TOTAL ADMINISTRATIVE COST PER RECIPIENT-YEAR

Dividing an assistance program's total administrative costs by the average number of recipients it supports in a given year yields a summary measure that is generally misleading. With no change in efficiency, that measure can change dramatically depending on how fast the program is growing. Using steady-state HAO intake and maintenance costs given above, the measure would be \$154 when the ratio of new recipients to recipient-years is two to ten; if the ratio is changed to 20 to 10, the measure would be \$503.

The only reliable way to calculate the total is to consider cost over the long term. Data on recipient attrition permitted us to estimate that the average HAO recipient remains in the program for four years. The full administrative cost for the typical recipient then will be \$194 for intake plus four times \$115 for maintenance: a total of \$654 or, dividing by four, \$163 per recipient-year.

- This cost is 14 percent below the \$190 average calculated by comparable methods for a national sample of Section 8 Existing Housing programs. Section 8 administrative functions are generally similar to those for the HAOs, except that subsidies are disbursed through contracts with landlords. This gives Section 8 agencies additional work in landlord outreach and in negotiating and maintaining those contracts. On the other hand, when these comparisons were made, Section 8 required eligibility recertifications only once each year for nonelderly recipients and once every two years for the elderly. The HAOs recertify all recipients' eligibility semiannually.
- The HAO cost is substantially below the \$235 median for the only other housing allowance programs for which data are available--those operated in the HUD sponsored Administrative Agency Experiment (AAE). The main reason for the difference is that the AAEs spent much more for services to help enrollees meet program housing requirements. Eligibility certification costs in the two programs were similar, but AAE recertification requirements were the same as those in Section 8, i.e., much less rigorous than those applied by the HAOs.
- The HAO \$163 total comprises \$108, to administer the programs, income-transfer functions; and \$55, to administer housing requirements. The former was only 37 percent of the \$295 average cost of administering the same functions in the national AFDC program in 1976. The HAOs' \$108 was lower than the AFDC averages in all but two states.

INFLUENCE OF SCALE AND ATTRITION

The fact that per-unit administrative costs in the St. Joseph County program were nearly the same as those in the Brown County program, whose typical workloads were much smaller, indicates that economies of scale were not significant in allowance program administration (at least not in programs in the HAO size-range, serving from 3,000 to 6,500 recipients at any given time). As we examined changes in the direct costs of each HAO function, we found no case in which scale had an important effect on cost. There were some differences in overhead expenses. At steady state, Brown County's overhead cost per recipient-year exceeded St. Joseph County's by 14 percent, but this gap was smaller than we had expected and clearly not large enough to have had a strong influence on total costs.

Participant attrition, however, has a substantial effect on the costs of administration in both the intake and maintenance phases. On the average, only 43 percent of all applicants ever met all program requirements and qualified for payments. In their first five years, the HAOs' recipient attrition rate (recipient terminations per recipient-year) often reached 35 percent (although we estimate a long-term average of about 25 percent). Because there were no important scale effects, administrative costs can be expected to vary in proportion to workload volumes. Attrition affects costs because it causes dramatic variations in workload volumes.

Given actual attrition, to yield one new recipient from intake the HAOs had to accept and process 2.32 applications, conduct 1.58 enrollment interviews, enroll 1.24 households, and perform 2.07 housing evaluations. If attrition was eliminated, only one application, interview, and enrollment, and 1.68 housing evaluations would be required. We estimate that as a result, intake cost per new recipient would be reduced from \$194 to \$130.

The influence of attrition in the maintenance phase is more complicated. The main workloads are semiannual recertifications (mail-back questionnaires), annual recertifications (complete interview as in enrollment), and housing reevaluations. The HAOs consistently performed less than one annual recertification per

recipient-year because a large number of recipients who enrolled a year earlier had terminated by the time the annual came due. The HAOs performed more than one semiannual recertification per recipient-year, however, because those recertifications are completed before most of the year's attrition occurs.

At steady state, the HAOs initiated 1.26 semiannual recertifications, and processed 0.81 annuals and 0.98 housing evaluations per recipient-year. With no attrition, one semiannual and annual, and 1.40 housing evaluations would be required. Because of the shape of the attrition curve and the differences in per-case costs, maintenance cost per recipient-year would actually increase if no recipient was ever terminated (from \$115 to \$134).

A reduction in the recipient attrition rate, however, can reduce total administrative cost per recipient-year, since the slight increase in maintenance cost can be more than offset by the effect of amortizing intake cost over a longer duration of reciprocity. Suppose, for example, that duration increased from four to five years. Per recipient-year, intake would cost \$39 (194 divided by five) and maintenance cost would go up to \$120. The total would be \$159; \$4 less than the actual \$163 average.

In the real world of operating programs, there is little administrative agencies can do to influence attrition, but knowledge of its mechanics should help them prepare more accurate budgets and control costs more sensitively.

INFLUENCE OF PARTICIPANT CHARACTERISTICS

Different types of clients affect administrative costs quite differently. This occurs principally because their attrition rates differ; but in some functions, costs per case also vary (e.g., some types of clients have more complicated and thus more time-consuming enrollment interviews than others). Estimates for Brown County illustrate the point (see Fig. S.1):

- Variations in intake cost per new recipient are pronounced. The cost for the highest group (nonelderly homeowner couples

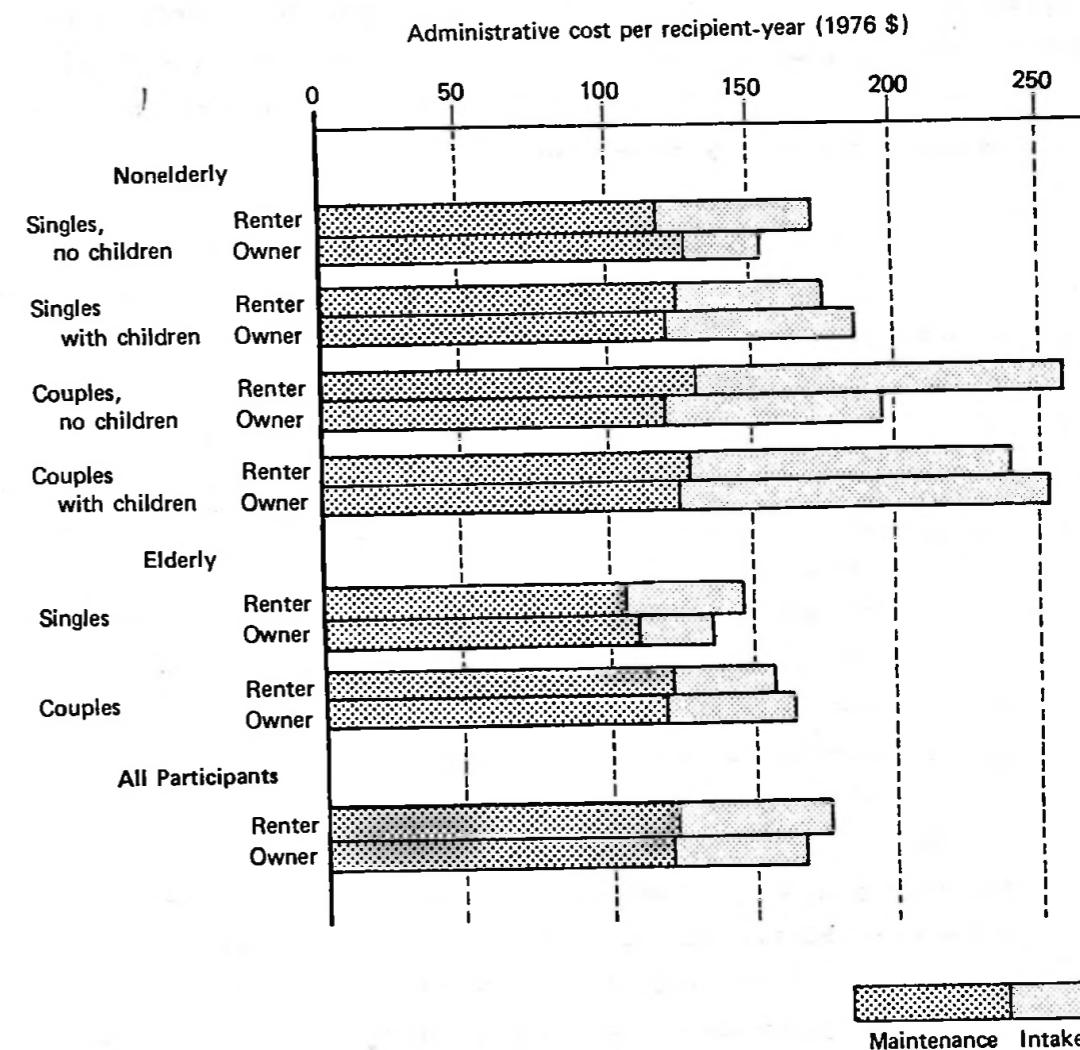


Fig. S.1 — Administrative cost by tenure and life-cycle stage: Brown County housing allowance program

with children), \$202, exceeds the cost for the lowest group (elderly single renters) by 43 percent. Maintenance costs per recipient-year do not vary as much; the cost for the highest group (nonelderly renter couples without children), \$130, exceeds that for the lowest group (elderly single renters) by 17 percent.

- The range of variations is much greater when total administrative costs per recipient-year are calculated, because of significant differences in the average duration of reciprocity over which intake costs are amortized. Nonelderly renter couples receive payments for an average of only 1.25 years, and require an administrative expense of \$260 per recipient-year. Elderly single homeowners generate a cost just over half that amount (\$135); their average duration of reciprocity is 7.8 years.
- Age and household composition have more effect on administrative cost than tenure. Total administrative cost per recipient-year was \$172 for renters and \$153 for homeowners.

Knowledge of such variations can help the designers and managers of public programs in two ways. First, given a set of eligibility rules and estimates of the composition of the population of participants, it can help them estimate budget requirements more realistically and do a better job of controlling costs. Second, in some circumstances it might help them modify eligibility rules to more effectively target the use of program resources.

Our analysis suggests a specific opportunity in the second category. Household heads who are temporarily unemployed need financial help, but we doubt that it is cost-effective to earmark that assistance for housing. Because of their short durations of reciprocity, the unemployed generate the highest administrative cost and, for the same reason, are the least likely to use assistance to make long-term changes in their housing consumption, changes that are central to program objectives. They also tend to have much higher allowance payments than the average.

Under current HAO rules, a temporary recession could swell recipient populations with the unemployed. We estimate that if under these circumstances the number of recipients in an allowance program increased by 30 percent, total program outlays would increase by about 51 percent. The increase could be avoided with a rule that would not permit housing assistance to start until six to nine months after a household has lost its primary source of income.

IMPLICATIONS FOR LOCAL PROGRAM OPERATIONS

The Section 8 Existing Housing program is presently administered by Public Housing Authorities (PHAs) operating in localities across the country. If a national housing allowance (or voucher) program is adopted by Congress, the PHAs would no doubt assume responsibility for its administration as well. The understanding of the determinants of workload and cost generation we have gained should help them in budgeting and cost control. What other lessons from HAO experience are relevant to efficiency improvements in their operations?

Most important, we have learned that simplicity in program design has a notable effect on administrative cost. Requirements of the housing allowance program implied that the HAOs had only a few straightforward administrative functions to perform--fewer than those required in any other HUD-assisted housing program. The fact that the HAOs did not have to maintain separate contracts with landlords was probably the most important factor lowering their administrative costs in relation to the Section 8 program. We also found that administrative costs are quite sensitive to variations in the required frequency of recertification. These factors deserve careful examination by HUD as it considers program design changes, since they could have sizeable impacts on PHA administrative budgets.

It also appears that the HAOs' unified and automated records system made an important contribution to efficiency as well as error control. When client eligibility certification data were updated, the computer handled payment adjustments and a number of other tasks automatically. With considerable reductions in computer costs, more

and more PHAs should find systems with similar capabilities to be cost-effective investments.

These features, however, do not explain how the HAOs were able to consistently improve efficiency over a long period of time. A part of the explanation, no doubt, lies in some advantages the HAOs had over typical local government agencies in this regard. First, the excitement associated with a national experiment helped the HAOs recruit a top-quality staff. Second, Rand and the HAO governing boards gave more time and emphasis to administrative cost reduction in design and operations than can usually be expected in a typical program. Also, since the HAOs were private, nonprofit corporations, they had more freedom to create incentives for performance than exists in many agencies.

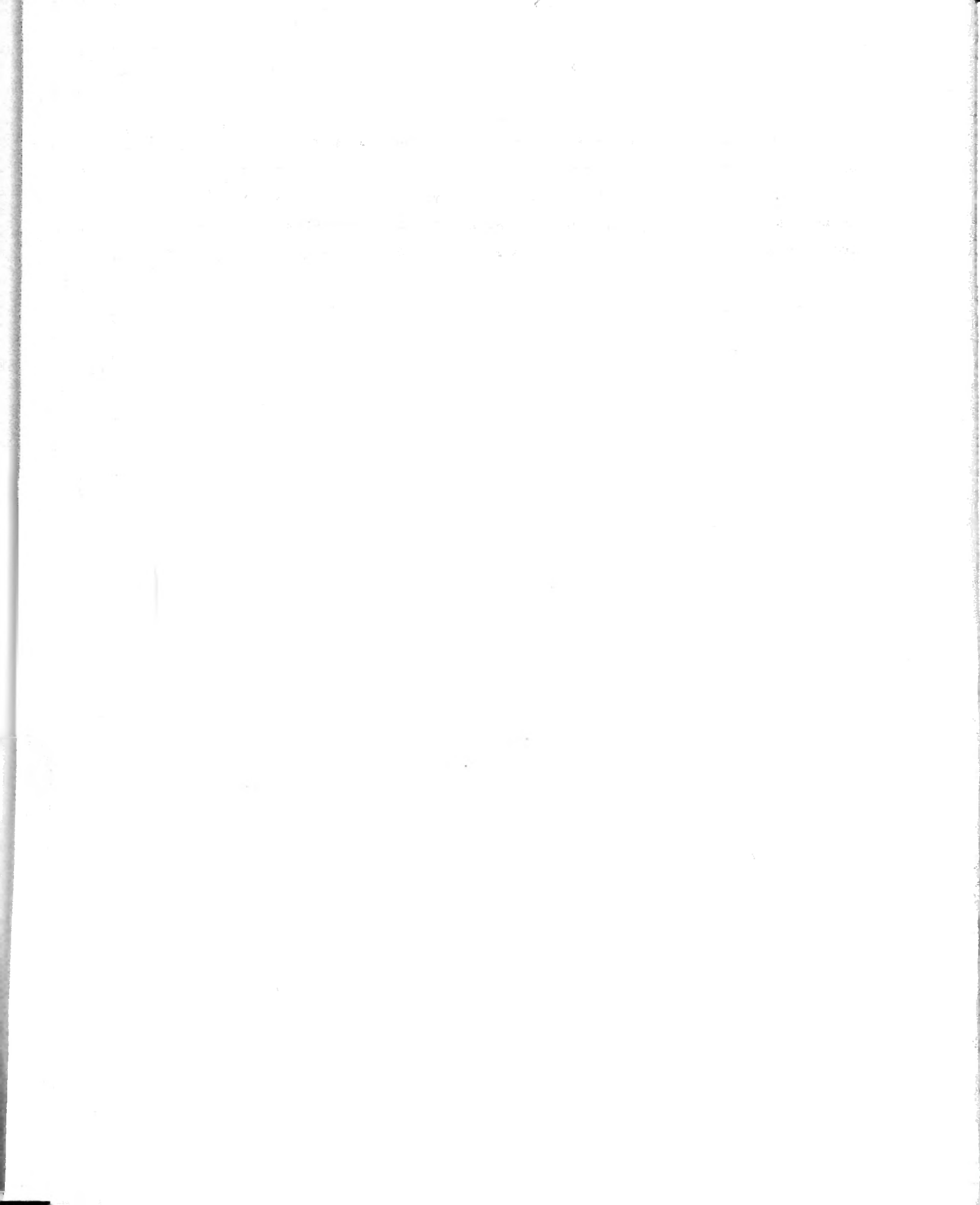
We do not believe, however, that these differences tell all or even most of the story. Almost all HAO staff were recruited locally, and salary structures were comparable to those of other local agencies. The HAOs were not driven by the competitive pressures of the private sector; funding was assured by HUD. We believe that two other features were also critical.

The first is the HAOs' formal staff-training programs. Training sessions provided an opportunity for HAO managers to stress productivity with all new employees. Also, by tightly defining methods for handling routine tasks, training reduced employee discretion to follow less efficient procedures.

The second is the HAOs' use of management information systems. These systems reported trends in staffing and cost per unit of output for most functions, as well as error rates. Most reports were computer-generated, so they did not place substantial tabulation burdens on employees. Top managers reviewed the reports regularly and could step in to take corrective actions when serious problems emerged. They also used the statistics in performance reviews for individual employments. Largely, however, the systems promoted efficiency without heavy-handed action from the top. Individual staff members and section supervisors, knowing that the reports would

surface incipient problems, did what they could ahead of time to prevent their further development.

Both of these features helped create an "efficiency orientation" in the HAOs. We believe that they are among the most promising tools for PHAs to use in their efforts to enhance operating efficiency as well.



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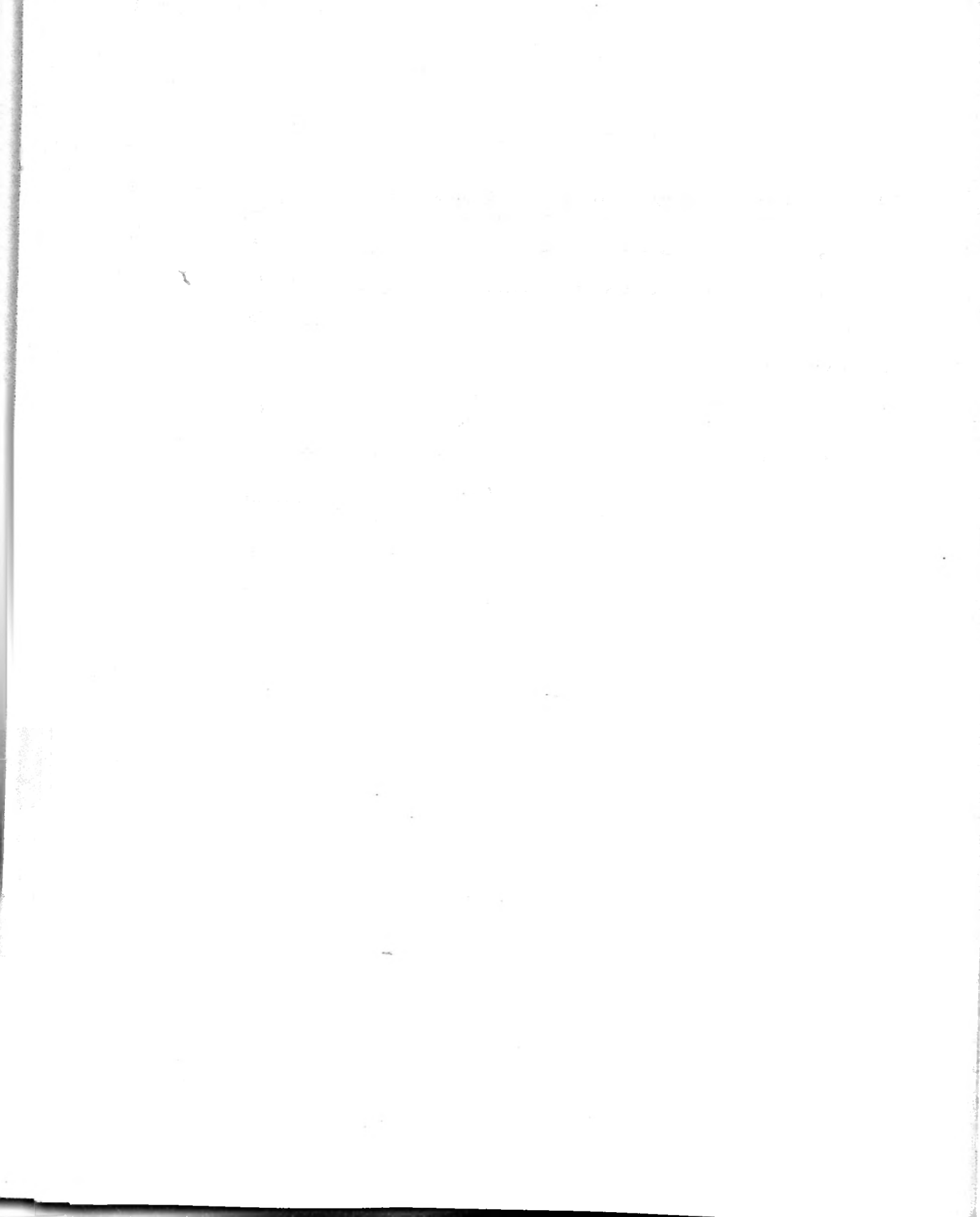
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I. INTRODUCTION

The administrative performance of government programs is seldom systematically researched. This may seem surprising, given increasingly vocal public concern about "waste and inefficiency" and the fact that efforts to improve efficiency are impeded by lack of knowledge. Reaching consensus about how to make improvements is often hampered by basic disagreements about the nature of the problem at hand or the likely effects of various proposed remedies--disagreements that could be resolved by sensible factual analysis.

The dearth of administrative research is explained by several factors, including inadequate management incentives and capabilities, and time limitations. We think, however, that data problems are often the dominant barrier. Most programs keep careful records of their expenditures, but few agency accounting systems permit managers to reliably calculate changes in efficiency (cost per unit of output), or to relate efficiency measures to potential explanatory variables.

This note examines administrative cost and performance of two programs that kept more complete records: the housing allowance programs operated as a part of the Housing Assistance Supply Experiment (HASE). In these programs, administrative functions were similar to those of many other public programs--interviewing applicants to determine their eligibility, distributing monthly benefit payments, inspecting housing. Their scale and duration were unique among social experiments: 29,800 households were enrolled over the first five years of operation.

Because of the special experimental context, we cannot demonstrate that the precise administrative cost and efficiency measures reported here could be replicated in a nonexperimental setting. However, the more general patterns and relationships discovered should be of value to the designers and managers of other programs; these include, for example, dramatic differences in cost

requirements to be expected when dealing with different types of low-income households; the dynamics of workload volumes (often surprising, given a cursory knowledge of program rules); and the manner in which particular rule changes can alter both the level of assistance payments and administrative cost.

In the rest of this section, we describe the Supply Experiment housing allowance programs, explain their administrative functions, and outline the purpose and contents of this note.

EHAP AND THE SUPPLY EXPERIMENT HOUSING ALLOWANCE PROGRAMS

The Supply Experiment was a component of the Experimental Housing Allowance Program (EHAP), a major research effort sponsored by the U.S. Department of Housing and Urban Development (HUD). Congress authorized EHAP to resolve uncertainties about how a housing allowance program would work in practice before making decisions about implementing the program nationally.

In a housing allowance program (as operated in the Supply Experiment), monthly subsidy payments are made directly to low- and moderate-income households to help with their expenses in existing private housing. The amount of the payment is calculated to fill the gap between the "standard cost of adequate housing" in the community and one quarter of the household's adjusted gross income. Payments are made to eligible homeowners as well as renters, and recipients can change tenure and move to wherever they choose in the program area without interrupting their assistance. While receiving payments, however, they must live in housing that has been inspected and approved as meeting basic housing quality standards. This requirement earmarks the subsidy for housing and thus distinguishes the approach from that of a pure income-transfer program.

This approach is a considerable departure from the federal government's traditional way of providing housing assistance, which entails subsidizing the construction of new projects (or the rehabilitation of substandards structures) specifically for occupancy by low-income households. To test its effects EHAP was designed with

three components: (1) the Demand Experiment (a small sample test of consumer reactions to housing allowances offered under varying terms in Pittsburgh and Phoenix); (2) the Administrative Agency Experiment (AAE) (an experiment focused on administrative procedures and their costs in eight small agencies around the nation); and (3) the Supply Experiment.

The Supply Experiment was designed and operated by The Rand Corporation (from 1974 through 1980) to test the market and community effects of a full-scale long-term housing allowance program. Its primary objective was to answer such questions as: To what extent would the program cause rent inflation and disrupt neighborhoods, or induce landlords and homeowners to invest more in upgrading and maintaining the housing stock? Soon after the experiment was under way, HUD introduced a secondary objective--analysis of program administration to supplement the studies of the AAE.¹

In the Supply Experiment, program enrollment was open to all eligible households in two metropolitan areas with contrasting market structures:

- Brown County, Wisconsin (metropolitan Green Bay). Brown County has a persistently tight housing market because of rapid growth in employment and population. It has very few minority-group residents. When the experiment began, its total population was about 170,000 (48,000 households).
- St. Joseph County, Indiana (metropolitan South Bend). Manufacturing employment has declined sharply in St. Joseph County since World War II, resulting in population losses. The central city has a large surplus of deteriorated housing, and there is a large minority population. Total population was 240,000 (76,000 households) when the experiment began.

¹ More complete descriptions of the Supply Experiment's purposes and design and summaries of its interim findings may be found in the Fourth Annual Report, 1978, and Sixth Annual Report, 1980. A series of final reports on the experiment are scheduled for completion in 1982. The broader purposes and components of EHAP are described in U.S. Department of Housing and Urban Development, 1980.

In each site, the program has been administered by a separate nonprofit corporation--a housing allowance office (HAO)--which works under contract to local housing authorities. Program funding under Section 23 of the U.S. Housing Act of 1937 was committed for a ten-year operating period. The experimental phase ran from the date the funding contract was signed through the first five years of open enrollment. During this phase, Rand employees held a majority of the positions on the Board of Trustees of each HAO and controlled HAO activities to ensure conformance of experimental requirements. Rand then relinquished its control to local community leaders who, as trustees, are responsible for program activity for the rest of the ten-year operating period (see Appendix E for HAO organization and staffing).

In Brown County, the funding contract was signed in March 1974. After a start-up and systems-testing period, open enrollment was initiated in June 1974. The experimental phase ended five years later in June 1979. In St. Joseph County, the contract was executed in September 1974, open enrollment began in April 1975, and the experimental phase was complete at the end of March 1980. During the experimental periods, the Brown County HAO staff averaged 51 full-time equivalents (FTEs); the St. Joseph County HAO, 76 FTEs.

The administrative relationships outlined above are unusual, but they were effective in meeting the requirements of a unique situation. To ensure that the experiment's objectives would not be thwarted in local political upheavals, Rand had to have complete control over the program's administration during the experimental phase. Thus, although relationships were maintained with the local housing authorities and other local groups, initial contracts made it clear that only Rand was empowered to make decisions on operations during the first five years. Yet, the same contracts provided a vehicle for full transition to local control when Rand stepped out of the picture as the experimental phase was complete.

Rand could not have exercised its control through its majority representation on the HAO Boards of Trustees alone. To handle day to day management, Rand hired a staff to function as the experiment's Field and Program Operations Group (FPOG). FPOG designed the program's

administrative systems and procedures, played the central role in hiring local HAO managers and otherwise implementing the program in both sites, and then monitored and controlled operations regularly thereafter.

The FPOG manager, along with four to five other representatives of top Rand management, sat on each of the HAO Boards. From two to three community leaders in each site rounded out the Board's membership. The FPOG staff provided trustees with the information needed for decisions in their periodic (usually quarterly) meetings.

The size of the FPOG staff peaked at 11 FTEs during implementation, but averaged 5 FTEs in the last two years of the experimental phase. All FPOG staff members had prior experience in designing or administering local housing programs, but they were not chosen solely for their expertise in administration. Some had previously worked as researchers for Rand and all were well-versed on national housing policy issues and had backgrounds that made them responsive to the experiment's research charter.

ADMINISTRATIVE GOALS AND FUNCTIONS

Before discussing the contents of this note, we review our concept of the goals of allowance program administration and the nature of the administrative functions the HAOs perform. These factors form the background structure for our analysis.

The Goals of Program Administration

Administrative goals can be thought of as distinct from program goals. The program was designed to ease the housing-expense burdens of low-income households, to improve the quality of the housing stock, and to distribute assistance in an equitable manner. The administration of the program could be effective independent of the degree to which these goals are achieved.

The HAOs had four administrative goals: the first three define administrative effectiveness and the fourth is efficiency:

- Prompt workload processing. Expediting required workloads associated with intake, maintenance, and terminations in accord with program rules to avoid unreasonable delays and backlogs.
- Program integrity. Making accurate determinations with regard to eligibility certification, housing certification, and payments, thus ensuring that the right households receive the correct amount of assistance in accord with program standards. Accuracy was particularly important in the Supply Experiment because of the need for reliable research data as well as the responsibility of safeguarding public funds.
- Client and community satisfaction. Meeting program expectations and minimizing unnecessary burdens for clients (such as excessive paper work, infringements on privacy, unclear rules and procedures) or frictions in the general community of nonparticipants.
- Administrative efficiency. Performing requisite program functions effectively at the lowest possible administrative cost.

These goals do not offer unambiguous guidelines. They often pull in conflicting directions. An extreme attempt to avoid burdens for clients, for example, might lead to the elimination of effective error-control devices. Overzealous error control, on the other hand, might substantially increase operating cost as well as inconvenience for clients. The challenge for the HAOs was to achieve, within each administrative function, the most reasonable balance between effectiveness and efficiency.

Administrative Functions

During the experimental phase, the HAOs had two basic objectives: first, to operate the housing allowance program; and second, to support the experiment's research agenda by such activities as preparing computer files for transmission to Rand, conducting special studies,

and preparing special reports and presentations for HUD. Program operations involve intake functions (those required to bring new clients into the program) and maintenance functions (those required to maintain clients as allowance recipients once they have achieved that status). These activities provide the HAOs' direct outputs. They are dependent, however, on the performance of additional, indirect activities--administrative support functions such as general management, training, press and community relations, and accounting. In summary, the superstructure of HAO functions is as follows:

Direct Functions

- Program Operations
 - Client Intake
 - Client Maintenance
- Experimental Support

Indirect Functions

- Administrative Support

The components of intake and maintenance account for the largest share of all HAO expenditures and have the greatest influence on the character of HAO administration. They are the main focus of our research.

Client Intake

Outreach. Using advertising and other techniques to inform eligibles about the program.

Eligibility Certification (Enrollment). Arranging and administering means tests for households that submit an application. The enrollment process includes the following:

- Screening and scheduling. Preliminary screening of applicants, and scheduling enrollment interviews for those not clearly ineligible.
- Program information and enrollment interview. Providing information to applicants about program rules, and conducting

interviews with them to obtain information on household status and income; determining whether the household is eligible; if eligible, determining the amount of its allowance entitlement; and signing participation agreements with eligibles who choose to enroll.

- Error control and data processing. Checking enrollment forms to detect and correct errors; verifying undocumented information with employers, banks, public agencies, etc.; and creating client records in the HAO computer system.

Housing certification. Ensuring that new recipients meet allowance program housing requirements. This function has two components:

- Housing evaluation. Inspecting enrollees' housing units; informing them of the results; reevaluating units after repairs are attempted; processing evaluation results and lease agreements, and authorizing payments to those whose housing qualifies.
- Enrollee services. Providing services to help enrollees obtain certifiable housing. In the Supply Experiment, such services consisted mainly of voluntary group counseling sessions and legal services in discrimination cases.

Client Maintenance

Payment operations. Generating and mailing monthly allowance checks; suspending or terminating payments; adjusting payment amounts to reflect recertification results, security deposit advances, or previous underpayments or overpayments.

Eligibility recertification. Periodically conducting three types of means tests to monitor client eligibility and allowance entitlement:

- Semiannual recertification. Processing mail-back questionnaires on household status and income, prepared halfway between enrollment anniversaries. Includes follow-up to obtain

additional information when questionnaire responses are inadequate; error control; and data processing.

- Annual recertification. Activities are similar to those in enrollment certification: scheduling, interviewing, error control, and data processing. The interview is conducted in the month of the client's enrollment anniversary.
- Special recertification. Administering means tests by telephone or interview in special circumstances between semiannual and annual recertifications.

Housing recertification. Monitoring to ensure that recipients continue to meet housing requirements.

- Housing reevaluation. Annually inspecting dwellings occupied by recipients; inspecting units to which recipients plan to move; informing recipients of evaluation results; reevaluating failed units after repairs have been attempted; and processing results.
- Recipient services. Conducting voluntary group counseling sessions; providing literature on housing maintenance; and providing legal services for discrimination cases.

Administrative Procedures and Standards

As noted earlier, the administrative procedures employed to implement each function were designed by Rand's Field and Program Operations Group and the senior staffs of the two HAOs. They are summarized in Sec. III of this report and recorded in full in a comprehensive Housing Allowance Office Handbook whose contents were approved by HUD and modified as warranted by subsequent experience (Katagiri and Kingsley, 1980). The Handbook covered all elements of program administration. More detailed instructions for several functions were provided in a series of manuals, of which the most important were the Instruction Manual for the Enrollment Application and the Housing Evaluation Manual. In addition, policy clarification memoranda (PCMs) were issued as needed to clarify rules

or transmit modifications. A total of 228 PCMs were issued during the experimental phase.

Although the number of technical modifications over the five years was substantial, almost all represented "fine tuning"; the basic procedures designed at the outset were retained throughout. It is also important to note that, with a few minor exceptions, detailed procedural specifications were the same for both HAOs. HUD and Rand monitored program operations more intensively than could be expected in a regular operating program to ensure consistency between sites and over time.

PURPOSES AND CONTENTS OF THIS NOTE

This note examines administrative costs over the full five-year experimental phase in both sites. It has three major purposes: First, to determine HAO costs per unit of service provided (in total and for component administrative functions) and examine how those costs changed over the five-year analysis period. Second, to use the information we have gathered to shed light on the determinants of administrative cost and the way various determinants interact to affect program outcomes. Third, to draw implications of relevance for regular operating programs, particularly the local Public Housing Authorities (PHAs) that now administer the Section 8 Existing Housing program and would have responsibilities for administering a national housing allowance (or voucher) program if one is enacted.

In Sec. II, we present data on five-year HAO workloads and expenditures (to give the reader a sense of the scale of program operations) and then describe our approach to the analysis of administrative efficiency. Sec. III shows how direct costs per unit of output (excluding indirect or administrative support costs) varied for each function in the two HAOs from April 1976 through June 1979. It also examines learning curve and scale effects on those costs.

In Sec. IV, we present the remaining steps needed to derive stable measures of total intake and maintenance cost per unit of output. We examine workload generation for each function, as well as analysis of experimental support and administrative support costs.

In order to develop findings relevant to the operation of regular programs (the third purpose of our study), we need to understand not only what happened in the HAOs but also why it happened; to identify the determinants of administrative cost and, to the extent the data will permit, examine the way they work to affect overall agency efficiency. In Sec. V, we review a series of factors we judge most important in determining costs in the HAOs, and analyze one in detail: the influence of participant characteristics. Briefly, we find that the cost of administering the program for some kinds of households (differentiated by tenure and life-cycle stage) is much higher than the cost for others.

Sec. VI brings together information from the preceding sections and applies new information on the effects of recipient attrition rates to establish reliable measures of total administrative cost per unit of service provided. It also shows how total costs vary depending on the types of households participating in the program, and how HAO costs compare with administrative costs in the AFDC program, the AAE housing allowance programs, and HUD's Section 8 Existing Housing program

In Sec. VII, we discuss implications of our findings for management control and efficiency improvement in other operating programs.

The appendixes to this note provide comprehensive reference material on allowance program administration in the Supply Experiment. The first three contain quarterly data on key accounts from HAO management reporting systems for the full five-year experimental period in both sites. Client accounting data (e.g., numbers of applicants, enrollees, recipients, terminees) appear in Appendix A. Workload counts (e.g., number of means tests and housing evaluations conducted) are tabulated in Appendix B. Program expenditures (administrative costs by type and allowance payments disbursed) are shown in Appendix C. Appendix D contains data on staff work-hours and expenditures allocated to administrative functions for the January 1977 through June 1979 study period, and Appendix E describes the HAO organizational structure and staff allocation to the prescribed organizational units.

II. WORKLOADS, EXPENDITURES, AND ANALYTIC APPROACH

Experimental assistance programs usually operate for a short period of time and draw their participants from a limited sample of all eligibles. The Supply Experiment housing allowance programs operated under quite different conditions. Funding was committed for ten years and the programs were open to all eligibles who chose to apply. The programs soon became the largest low-income assistance programs in their communities. By the end of year two in both sites, more local households were receiving housing allowances than welfare assistance from any other program, including AFDC. The number of allowance recipients was substantially greater than the number served by conventional public housing and all other traditional HUD assistance programs combined.

The main purpose of this section is to describe our approach to the analysis of HAO administrative costs. Before we do so, however, it should be helpful to provide a clearer sense of the scale of HAO operations, reviewing data on workload volumes and expenditures and the ways in which both changed over the course of the experimental period.

CLIENT ACCOUNTING AND WORKLOADS

In five years of open enrollment at each site, the HAOs together received a total of 59,300 applications for assistance (Table 2.1).¹ By the end of the period, however, only 29,800 (roughly half) had been

¹ In the text of this report, we use the term "enrollment" to cover both initial enrollments and reinstatements. This means that we count "participation episodes" rather than participant households. If a household submits an application, enrolls, receives payments, and is terminated, it has completed one episode. If it applies again, is reinstated and so forth, a second episode is under way and our cumulative transaction counts are increased. If we counted a household only once no matter how many times it participated, our counts would not reflect the work performed by the HAOs. Complete definitions of client accounting and workload measures, and quarterly transaction tables are provided in Appendixes A and B.

Table 2.1

HOUSING ALLOWANCE PROGRAM WORKLOADS
FIRST FIVE YEARS OF OPEN ENROLLMENT

Item	Brown County	St. Joseph County	Total
<i>Client Intake</i>			
Applications submitted	18,106	41,198	59,304
Interviews conducted	13,041	28,691	41,732
Enrolled	10,200	19,599	29,799
Intake verifications	3,932	8,432	12,364
Intake housing evaluations	16,281	28,654	44,935
New recipients authorized	8,388	14,667	23,055
<i>Client Maintenance</i>			
<u>Recipient-Years</u>	13,578	22,116	35,694
<u>Semiannual Recertifications</u>			
Initiated	16,981	31,132	48,113
Verified	1,002	1,496	2,498
Processed	14,468	24,213	38,681
<u>Annual Recertifications</u>			
Initiated	11,962	20,474	32,436
Interviews conducted	10,593	17,443	28,036
Verified	4,522	5,186	9,708
Processed	10,037	16,129	26,216
<u>Special Recertifications</u>			
Verified	650	1,718	2,368
Processed	1,655	3,342	4,997
<u>Maintenance Housing Evaluations</u>	12,343	21,783	34,126
<i>Terminations (adjusted)</i>			
Enrolled, never paid	1,485	3,976	5,461
Received payments	<u>4,579</u>	<u>7,667</u>	<u>12,246</u>
Total	6,064	11,643	17,707

SOURCE: HAO Management Information Reports as tabulated in Appendixes A and B.

NOTE: Open enrollment began in July 1974 in Brown County and April 1975 in St. Joseph County.

interviewed, found eligible, and enrolled. Many applicants (17,600) had not accepted the HAOs' invitation to attend an enrollment interview, either because they assumed they were not eligible or otherwise decided not to participate; 11,900 who were interviewed were not enrolled, in most cases because they failed to meet the program's eligibility requirements.

In contrast, most of those enrolled (23,100 or 78 percent) met program housing requirements and received one or more monthly housing allowance payments; in process, 44,900 intake housing evaluations were performed.

Maintaining these households as recipients entailed disbursing payments (428,300 monthly checks issued over the five-year period in both sites); conducting eligibility recertifications (69,900 cases processed); and recurrent housing inspections (34,200 evaluations complete).

The "recipient-year" is a useful summary measure of workload in the maintenance phase; one recipient-year is the equivalent of 12 months in recipient status regardless of the number of households involved. If two households received payments for 6 months and two others for 9 months during a given year, for example, the yield would be 30 recipient months or 2.5 recipient-years. Altogether, the HAOs supported 35,700 recipient-years during their first five years of operation.

Both HAOs experienced considerable participant turnover as the programs evolved, a phenomenon we analyze in some depth later in this report. By the end of the five years, 17,700 enrollments had been terminated (12,200 of those who had been authorized to receive payments).

Intake and maintenance workload relationships in the two sites differed in a number of respects. Many of these differences will be examined in Sec. III, but two are important enough to be noted here. First, St. Joseph County workloads were typically from 1.5 to 2 times as large as Brown County workloads, a fact explained by differences in the size of the eligibility populations in the two sites rather than differences in program operations or public

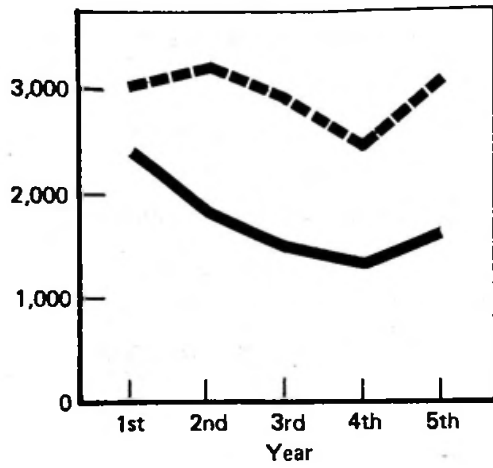
response. Second, St. Joseph County generally suffered higher rates of attrition in the intake phase. Only 36 percent of St. Joseph County applicants, compared with 47 percent of Brown County applicants, had become recipients by the end of the five-year period. Both sites, however, had the same overall termination rate; 60 percent of all those ever enrolled had been terminated by the end of the period.

Both HAOs experienced significant shifts in workload volumes over the course of the five years, as illustrated in Fig. 2.1. The Brown County HAO brought 2,300 new recipients into its program during the first year, July 1974-June 1975--a number expanded by the effects of the national recession still under way in late 1974. Its intake volume then dropped and leveled off (Graph A). The number of new recipients added per year in years two through five ranged from 1,412 to 1,676, 61 to 72 percent of the first-year rate. Cumulatively, the number ever authorized for payment grew along an almost straight line, reaching 8,388 by the end of year five (Graph C).

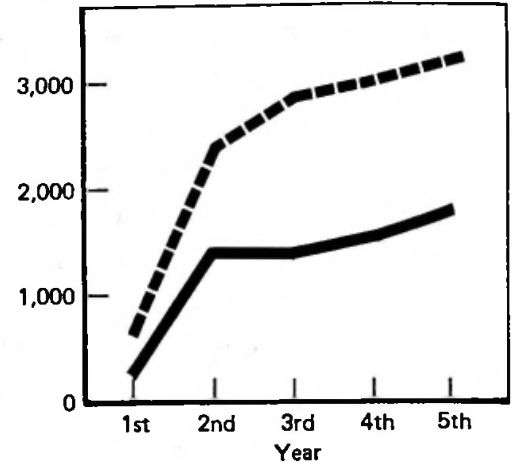
With turnover, of course, the number actually receiving payments at any time was considerably smaller. Recipient terminations were negligible during the first year when only a few households were participating; but ranged from 910 to 1,261 per year over the rest of the period (Graph B). In years two through five, these terminations represented a surprisingly high and remarkably stable 35 to 37 percent of the average number of recipients during each year.

The average number of recipients in each year (Graph D) results from the net effect of intake and terminations: the Brown County figure climbed from 939 in year one to 2,493 in year two and 3,201 in year three, but grew only gradually thereafter, reaching 3,600 in year five.

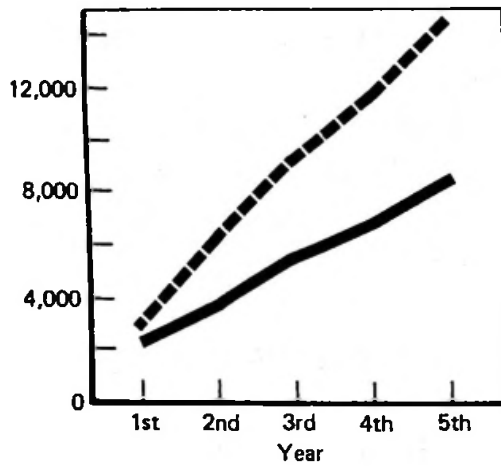
St. Joseph County's experience was generally similar but, as expected, with larger numbers in all categories. Two differences should be noted. First, intake rates (new recipients added per year, Graph A) declined less rapidly over the first few years than they did in Brown County. Second, intake jumped sharply in year five (April 1979 through March 1980), again reflecting the impact of a national recession.



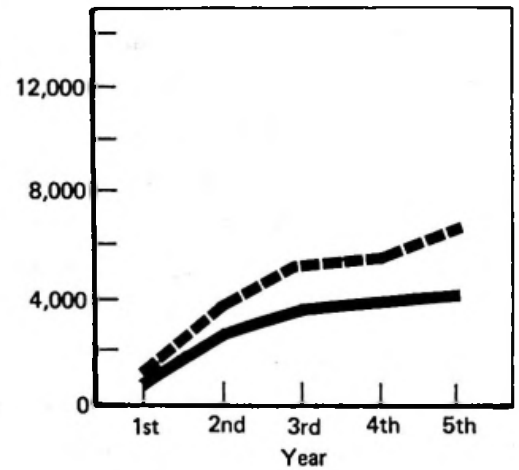
(A) New recipients added per year



(B) Recipient terminations per year



(C) Cumulative new recipients added by end of each year



(D) Average number of recipients during year

— Brown County (7/74-6/79)
- - - St. Joseph County (4/75-3/80)

Fig. 2.1 — Change in the recipient population

The number of new recipients added to the program in year five (3,106) was in fact slightly higher than the number added in year one.

The number of recipients ever added to the St. Joseph County program reached 14,667 by the end of year five. As in Brown County, terminations were high, ranging from 1,394 to 2,290 in years two through five. The average number actually receiving payments grew rapidly to reach 5,232 in year three; increases were modest in year four but more rapid in year five when the average reached 6,178.

The similarity in turnover rates between sites, as well as over time, is noteworthy. St. Joseph County's annual termination rate was 39 percent in year four, but in years two, three and five, it fell within the same 35- to 37-percent range noted above for Brown County.

The scale of these programs (number of recipients ranging from 3,600 to 6,200 in year five) is truly significant compared with most local housing programs in the United States. The Section 8 Existing Housing Program, for example, has many features similar to the allowance program and is now HUD's fastest growing mechanism for housing assistance (see discussion in Sec. VI). In recent years, the average number of recipients served by local Section 8 programs fell in the 300-400 range.

PROGRAM EXPENDITURES

Five-year program expenditures in both sites totaled \$46.7 million (Table 2.2). The bulk of this amount, \$32.3 million, was chargeable to the housing allowance payment account, all but 0.4 percent of which was disbursed as direct payments to recipient households. The small remainder was made up of (1) \$65,500, covering collection losses (written off when, for example, after reasonable efforts the HAO was unable to collect amounts due from participants who had been overpaid prior to termination); and (2) \$79,300, covering the net difference between funds advanced to recipients to make security deposits when they moved to new housing units, and the amounts they had repaid.

Table 2.2

HOUSING ALLOWANCE PROGRAM EXPENDITURES AND STAFFING
FIRST FIVE YEARS OF OPEN ENROLLMENT

Item	Brown County	St. Joseph County	Total
<i>Housing Allowance Office Expenditures (\$000s)</i>			
<u>ADMINISTRATIVE EXPENDITURES</u>			
<u>Personnel Expenditures</u>			
Salaries	3,000,663	4,676,910	7,677,573
Fringe benefits	568,736	871,798	1,440,534
Total	3,569,399	5,548,708	9,118,107
<u>Nonpersonnel Expenditures</u>			
Professional services	367,658	428,648	796,306
Outreach advertising	76,497	358,345	434,842
Travel	69,243	149,062	218,305
Computer operations	186,221	262,922	449,143
Office and equipment rental	556,094	776,073	1,332,167
Supplies, postage, printing, and miscellaneous	293,532	498,312	791,844
Equipment purchase and office renovation	269,848	182,278	452,126
Total	1,819,093	2,655,640	4,474,733
<u>Total</u>	5,388,492	8,204,348	13,592,840
<u>HOUSING ALLOWANCE PAYMENTS</u>			
<u>Payments to Recipients</u>			
Payments to renters	7,782,619	10,190,302	17,972,921
Payments to homeowners	4,109,080	10,041,477	14,150,557
Total	11,891,699	20,231,779	32,123,478
<u>Collection Losses</u>	25,746	39,799	65,545
<u>Security Deposit Advances</u>			
Advanced	90,083	192,647	282,730
Collected	(73,469)	(129,993)	(203,462)
Net	16,614	62,654	79,268
<u>Total</u>	11,934,059	20,334,232	32,268,291
<u>TOTAL EXPENDITURES</u>	17,322,551	28,538,580	45,861,131
<i>Staffing and Service Ratios</i>			
<u>Average HAO staff full-time equivalents (FTE)</u>	50.8	75.8	126.6
<u>Expenditures per FTE (annualized)</u>			
Salaries	11,814	12,340	12,129
Total administrative expenditures	21,215	21,647	21,474

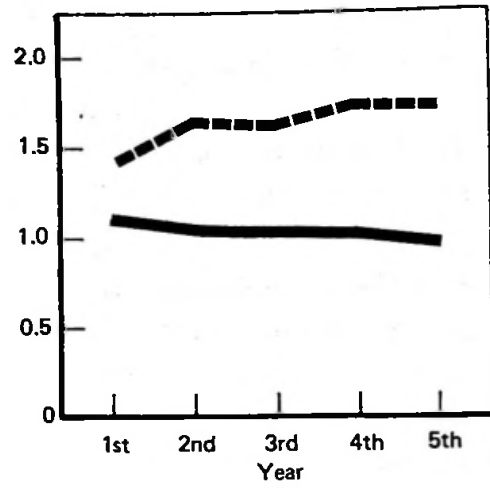
SOURCE: HAO accounting records as tabulated in Appendix C.

NOTE: Open enrollment began in July 1974 in Brown County and April 1975 in St. Joseph County.

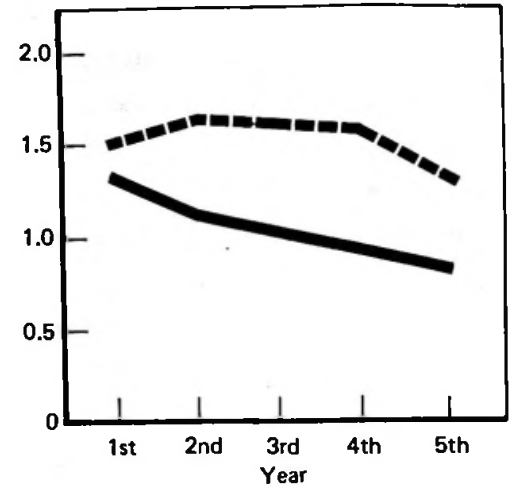
Costs of administering both programs amounted to \$13.6 million. Both HAOs were always labor-intensive organizations; personnel costs (salaries and fringe benefit payments) accounted for two-thirds of total cost. The next largest category was office and equipment rental amounting to 10 percent of all administrative expenditures. Capital expenditures (equipment purchase and office renovation) accounted for only 3 percent. Although aggregate expenditures for program administration were quite different in the two sites (the St. Joseph County HAO spent one-and-one-half as much as the Brown County HAO in five years), percentage allocations among components were in most cases nearly the same.

Figure 2.2 shows how key administrative variables changed over time, revealing an interesting difference between the sites. In Brown County, annual administrative costs in current dollars were highest in year one (\$1.2 million) and declined each year thereafter. In St. Joseph County, year one was the low point at \$1.4 million; administrative costs increased to \$1.6 million in years two and three and \$1.7 million in years four and five (Graph A). There was considerable inflation during this period of course, and the picture is naturally altered when we express costs in constant dollars (Graph B): Brown County administrative costs decline more steeply; St. Joseph County costs also decline after year two, but not by as much.

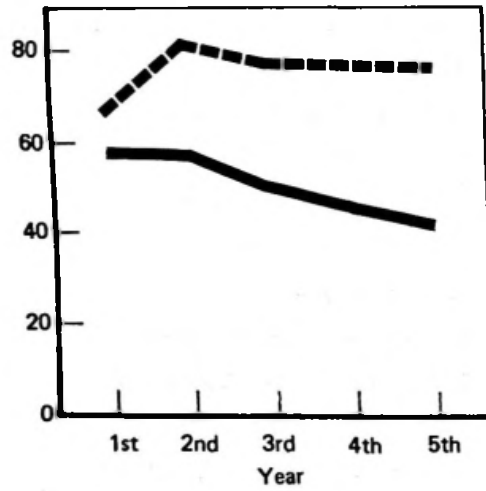
Given the dominance of personnel costs in overall HAO administration, it is not surprising that staffing levels (Graph C) follow the same general pattern as expenditures. Brown County staff averaged 57 full-time equivalents (FTE) in years one and two, then declined gradually to 42 by year five. St. Joseph County staff increased from 66 in year one to 82 in year two and then leveled off at 77 in years three through five. There was a strikingly close relationship in costs and staffing in the two sites. Over the full five years, total administrative costs per FTE averaged \$21,200 in Brown County, \$21,600 in St. Joseph County (current dollars).



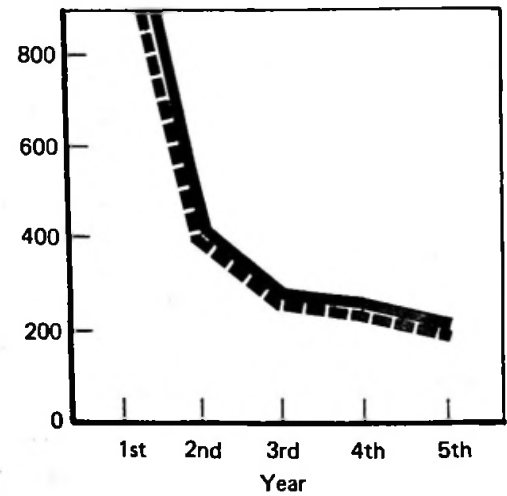
(A) Administrative expenditures per year (current \$ millions)



(B) Administrative expenditures per year (constant 1976 \$ millions)



(C) Average staff full-time equivalents



(D) Average administrative expenditure per recipient-year (\$)

— Brown County (7/74-6/79)
- - - St. Joseph County (4/75-3/80)

Fig. 2.2—Administrative expenditures / staff

ANALYTIC APPROACH

Thus far, we have reviewed overall cost and expenditure data but have not begun to answer the questions of greatest interest for policy. To do so, we first need to define a standard measure of overall efficiency, and use it to compare changes in performance of the two HAOs over time. The fact that Brown County administrative costs declined more than St. Joseph County costs, for example, tells us nothing about efficiency; the important question is how HAO costs changed per unit of output or service provided. Second, we would like to measure changing cost per unit of output for individual HAO activities such as conducting enrollment interviews or housing evaluations. Efficiency may have increased in some areas and declined in others. Patterns like this must be known to enable us to understand variations in overall HAO performance. When such measures are in hand we can then more realistically examine the influence of various factors in determining administrative cost levels.

The Overall Measure: Long-Term Cost Per Recipient-Year

The news media often compare administrative cost of income-transfer programs to the level of benefits provided; e.g., "It costs \$.25 in administration to give away \$1 to recipients." These ratios, however, are notably bad indicators of administrative performance. A program being run quite inefficiently could have an attractively low ratio of administration cost to total outlay simply because its benefit formula yields larger payments to recipients than other programs. Researchers generally recognize that better measures for comparing efficiency in programs like these involve calculating cost per beneficiary over a fixed period of service. In this report, we focus on administrative cost per recipient-year.

The most direct way to calculate this ratio is to divide total HAO administrative costs during a given period by the number of recipient-years logged in during that period. The result of this method for each HAO for each of the first five years of program operation is shown in Graph D, Fig. 2.2. During year one in both

sites, administrative cost per recipient-year (\$1,433 in Brown County, \$1,196 in St. Joseph County) was higher than the average annual allowance payment. In year two, the ratios plummeted to the \$430 to \$447 range. In the remaining years, they continued to decline, though less dramatically each year. Cost per recipient-year in year five reached \$229 in Brown County, \$214 in St. Joseph County.

The graph is impressive, not only because of the dramatic decline in the cost ratio, but also because of the similarity of the curves for the two sites. Nonetheless, the measure calculated in this way is not a valid indicator of administrative efficiency. In year one HAO staffs did a tremendous amount of work bringing new households into the program, but as would be expected, the number of recipient-years generated (the denominator in the cost ratio) was still quite small. In year five, much less work was devoted to intake than to maintaining what was by then a large recipient population; yet administrative costs per recipient-year averaged only 17 percent of the year-one costs. It is impossible to believe that the staffs became that much more efficient.

The difference is largely explained by the composition of the workload. This method of calculation loads the full cost of intake into the period in which it occurred. In any period where intake workloads dominate, the cost ratio will be distorted upward regardless of the level of agency productivity. To avoid such distortion, we developed the measure long-term administrative cost per recipient-year, calculated as follows:

$$C = \frac{S}{P} + M, \quad (1)$$

where C = total long-term administrative costs per recipient-year.

S = total cost of administering intake functions per new recipient added to the program.

M = total cost of administering maintenance functions per recipient-year; and

P = average number of years recipients remain in the program.

This method solves the problem because it amortizes intake cost over the full duration of reciprocity. It creates additional information requirements, however. The costs of intake must be carefully separated from the costs of maintenance.

Determining Intake and Maintenance Costs

Table 2.2 and Appendix C present fully audited HAO expenditures in an object-class or line-item accounting structure. This system of accounts organizes costs according to the type of commodity or service purchased (personnel services, office rental, supplies, etc.), i.e., by type of input. To determine intake and maintenance costs (S and M), in Eq. 1 we need to redistribute the same dollars differently, relating them to the HAO functions they supported, i.e., by type of output. If, for example, an employee worked half-time verifying enrollee income data and the other half conducting housing evaluations, his salary must be divided between those two functions.

Once function-cost data are available, it is necessary only to divide by the output produced (workload units completed) for the given cost to yield an efficiency measure for each function. For example, we would then know what it costs on the average to complete one housing evaluation. Next we calculate the contribution of each function to total intake and maintenance:

$$S = \sum_{i=1}^{N_s} C_{si} U_{si} \quad (2)$$

where N_s = number of intake functions
 C_{si} = cost per unit of intake function i workload,
 U_{si} = units of intake function i workload, per new recipient; and

$$M = \sum_{i=1}^{N_m} C_{mi} U_{mi}, \quad (3)$$

where N_m = number of maintenance functions
 C_{mi} = cost per unit of maintenance function i
workload,
 U_{mi} = units of maintenance function i workload
per recipient year.

Substituting Eqs. (2) and (3) into Eq. (1) yields:

$$C = \sum_{i=1}^{N_s} C_{si} \left[\frac{U_{si}}{P} \right] + \sum_{i=1}^{N_m} C_{mi} U_{mi} \quad (4)$$

A simpler way to calculate the intake factor would be to divide the full costs of intake and each of its component functions in a period by the number of new recipients added to the program in that period. The same method could be applied to maintenance, dividing all function costs by recipient-years. However, this approach leads to distortion if the workload volumes performed in some functions in the period are significantly out of line with long-term requirements.

To take an extreme example, suppose the staff spends most of its time in Period A processing 100 preliminary applications at a cost of \$2 each; only one household becomes a recipient before the end of the period. The simpler method yields a cost of \$200 per new recipient for application processing in Period A. Suppose further that the 99 other applicants from Period A are enrolled and become recipients in Period B. The staff works mostly on getting them through the system; only one new application is processed, again for \$2. The Period B cost of application processing per new recipient would be $\$2 \div 99$, or \$.02 according to the simpler method.

Allocating Costs to Functions

After the programs began, all HAO expenditures were assigned to specific object-class accounts when entered in agency financial records. When the HAO pays the bill for gasoline used by its automobiles, for example, the code for the "Local Travel" account accompanies the dollar amount in the bookkeeping entry. The analysis of administrative costs was later added to the Supply Experiment research agenda, and we recognized that to perform this analysis, a system had to be designed to allocate object-class costs among HAO function, for example, to distribute local travel costs by trip purposes such as housing evaluation, enrollment interview (occasionally conducted at the applicant's home), and general management.

The system was implemented in April 1976, 21 months after the program began in Brown County, and 12 months after the program began in St. Joseph County. The data were first used to analyze costs for April-December 1976 period (see Fourth Annual Report, 1978, and Kingsley, 1979). The allocation system is fully described in Kingsley and Schlegel, 1979. Except for a few modifications (spelled out in Appendix D of this report), the system as defined there is the same as the one used in this analysis to develop cost data for later periods.

In summary, the system yields costs for each of the HAO functions described in Sec. I, structured as follows:

Direct Expenditures

- Program Operations
 - Client Intake Functions: outreach, enrolling applicants, performing initial housing evaluations and housing-related services.
 - Client Maintenance Functions: payment operations, recertifying eligibility, evaluating recipients' housing, and performing housing-related services for recipients.
- Experimental Support: e.g., conducting special studies and preparing computer files for submission to Rand.

Indirect Expenditures

- Administrative Support: e.g., general management, accounting, office rent, and general supplies.

Personnel costs are allocated across these functions by an intermediary staff-time accounting system. As they fill out their regular time sheets for payroll purposes, HAO employees divide their work hours among the types of activities that occupied them each day. Although the system has a total of 88 different activity codes, only a few are applicable to any one staff member, so tracking their time accurately is not a complicated job for them. Special efforts were made to define activities clearly and naturally to avoid ambiguities. Time sheets are reviewed by HAO supervisors to ensure conformance to specifications. Once the time sheets are complete, activity data (work hours and related portions of salaries and fringe benefit payments) can be cleanly aggregated into our system of function accounts.

The allocation of nonpersonnel costs to functions is more straightforward. Some expenditures are clearly chargeable to only one function; for example, payments for newspaper advertisements to inform potential applicants about the program clearly belong in the outreach account. Others can be spread as direct charges among several functions, depending on their purpose; e.g., data on automobile mileage according to purpose of trip support a reasonable distribution of local travel costs. Still others cannot be considered as direct charges and must be grouped as indirect (administrative support) costs. We found no reasonable way to distribute office rent across individual functions, for example, so it was charged in the aggregate to the administrative support account.

Source Data for This Analysis

In this analysis, we use function cost data for both HAOs covering the 39-month period from April 1976 through June 1979. Data (work hours, personnel costs, nonpersonnel costs and total costs by function) for the April-December 1976 period are found in Kingsley and

Schlegel, 1979. Similar data for the January 1977-June 1979 are presented in Appendix D of this report.

The tables in Appendix D present the data for five six-month intervals for each site: January-June 1977, July-December 1977, January-June 1978, July-December 1978 and January-June 1979. Workload data for the same periods were aggregated from the quarterly tables in Appendix B. Six-month intervals (rather than months or quarters) were selected to minimize distortion due to delayed timing of workload counts. In our financial accounting systems, costs are always reflected in the right period; e.g., the costs for work done on income verification in June will appear as June costs. Workload accounting is trickier. We can count the number of verification cases assigned to the staff in June and the number complete in June, but there is no way to count the work being done while it is in process; 80 percent of the work on 20 verification cases might have been completed in June but none of that work will be counted in the denominator of our June cost ratio if those cases are not logged in as complete until July. There is no way to avoid such distortion completely, but the longer the study period, the less important it is likely to be in relation to the totals.

III. DIRECT COSTS OF ADMINISTRATIVE FUNCTIONS

In this section, we examine changes in direct cost per unit of output for each function and subfunction in housing allowance program operations. We first describe the procedures followed by the HAOs in administering the function, and then compare costs in the two sites for six periods running from April 1976 through June 1979. The costs (C_{si} and C_{mi}) are calculated by dividing total direct expenditures for a given function during each period (converted to constant June 1976 dollars; Appendix D, Tables D.4 and D.8) by the number of workload units processed by the function over the period (Appendix B, Tables B.2 and B.4).

At the end of the section, we examine trends in these costs over time and determine whether scale (changes in the number of workload units processed) had any influence on costs independent of the effects of time. We do not hypothesize that either time or scale are likely to have powerful effects on unit costs for all functions. However, they are obvious factors to be considered in an administrative analysis, and we need to understand their influence before we examine the effects of other cost determinants.

INTAKE COSTS

In the paragraphs below, we first explain how each function works and then compare its costs in the two sites.

Outreach

In the outreach function, the HAOs used a variety of techniques to inform low-income households about the housing allowance program and encourage them to apply if they thought they might be eligible. The function's costs cover staff work (giving presentations to community groups, planning outreach campaigns, etc.) and printing costs (brochures and posters). By far, the largest expenditure went for media advertising, in newspapers and on radio and television.

In a previous analysis (Kingsley, 1979, Sec.III), we showed that although both HAOs used all of the same outreach techniques, their strategies were quite different. The differences were yet more pronounced during the April 1976-June 1979 study period.

The Brown County HAO relied on advertising extensively over the first two years of open enrollment. The level of exposure, particularly the use of television spots, aroused substantial criticism in the community. As a result, the HAO reduced its advertising outlays. By mid-1976, the allowance program was well-known in Brown County. The HAO found that even with lower level "maintenance advertising," a sufficient number of applications were being submitted to support modest program growth. Function costs averaged \$10.80 per application during the last three quarters of 1976, dropping to \$3.84 in 1977 and further to \$.58 in 1978 and 1979 (Table 3.1).

The St. Joseph County HAO spent a great deal more on advertising, including television. There was less community criticism of their outreach strategy, and HAO managers believed that continued advertising was essential to adequately inform newly eligible households about the program. They did cut back after year two--campaigns were less frequent--but still spent considerably more than the Brown County HAO. Outreach cost averaged \$12.73 per application received in St. Joseph County over the study period, in contrast to \$4.41 for Brown County.

Screening and Scheduling

Screening and Scheduling is the first major subfunction of "Eligibility Certification" (the enrollment process). It has three components:

- Receipt and screening of contacts
 - Potential applicants contact the HAO (usually by telephone).
 - An HAO employee reviews program features and answers questions.
 - If the person is still interested, the employee asks screening questions (e.g., about household size, income).

Table 3.1

DIRECT COST PER CASE PROCESSED:
FUNCTIONS 11 THROUGH 12.31
(Constant June 1976 dollars)

<i>Function (Workload) Code^a and Title; Site</i>						
Item	11(11) Outreach		12.11(11) Receipt & Screen. of Contacts		12.12(11) Application Computer Process.	
	Brown County	St. Joseph County	Brown County	St. Joseph County	Brown County	St. Joseph County
<u>Cost Per Case (1976 \$)</u>						
April-December 1976	10.80	15.43	3.42	.93	1.16	.54
January-June 1977	4.65	21.16	5.21	2.20	1.68	.54
July-December 1977	3.04	10.02	3.33	1.48	1.04	.63
January-June 1978	.63	6.42	3.56	3.01	1.05	.67
July-December 1978	.26	16.16	2.95	1.98	1.04	.55
January-June 1979	.86	3.31	1.84	2.13	1.12	.36
Average	4.41	12.73	3.34	1.79	1.17	.54
Coefficient of variation	(b)	(b)	.32	.36	.21	.19

<i>Function (Workload) Code^a and Title; Site</i>						
Item	12.13(11) Interview Scheduling		12.2(12) Interview and Prog. Information		12.31(13) Enrollment Data Review	
	Brown County	St. Joseph County	Brown County	St. Joseph County	Brown County	St. Joseph County
<u>Cost Per Case (1976 \$)</u>						
April-December 1976	1.01	1.95	17.95	17.61	7.90	8.22
January-June 1977	1.02	3.79	22.13	15.48	4.63	5.54
July-December 1977	1.59	2.97	14.15	12.53	4.23	6.10
January-June 1978	1.88	3.39	15.49	14.28	3.99	8.40
July-December 1978	1.46	2.59	17.76	14.53	2.97	5.84
January-June 1979	.72	2.27	13.99	13.49	2.88	4.46
Average	1.24	2.72	16.92	15.06	4.91	6.50
Coefficient of variation	.34	.25	.18	.12	.41	.24

SOURCE: Rand analysis of HAO accounting records and Management Information Reports as tabulated in Appendixes B and D.

^aWorkload codes are defined in the stub of Table 4.1.

^bNot calculated because extent of variation is set by HAO policy.

- If the applicant is not clearly ineligible, a brief application form is filled out.
- Application computer processing
 - The computer assigns a household identification number to the applicant designated on the application form.
 - The computer prints a scheduling roster to be used in arranging the interview appointment; stores the application data; and prints weekly statistical summaries.
- Interview scheduling
 - The HAO sends a letter to the applicant asking him to call the HAO to arrange an interview appointment.
 - If there is no response, the HAO tries to call the applicant.
 - If unable to contact by phone (after three attempts), another letter is sent asking the applicant to contact the HAO.
 - When the applicant contacts the HAO, staff use the scheduling rosters as worksheets and set a time and date for the interview. A confirmation letter is sent to the applicant.

Costs for the two HAOs in each of these components differ significantly (Table 3.1). The difference in receipt and screening of contacts (average of \$3.34 per application for Brown County vs. \$1.79 for St. Joseph County) was expected. The Brown County staff developed an "intensive screening" approach before 1976; they characteristically asked more detailed questions about income and other eligibility factors in the initial phone conversation than did the St. Joseph County staff. They also tended to receive more telephone contacts per initial enrollment application (Kingsley, 1979).

The cost differences in application processing and interview scheduling are more difficult to explain. There were no obvious procedural differences between the HAOs in these functions, yet Brown County costs averaged \$1.17 and \$1.24 per case respectively vs. \$.54 and \$2.72 in St. Joseph County. We suspect that the St. Joseph County staff that worked with scheduling rosters may have

allocated their time incorrectly between these activities and function 22.21 (annual recertification interview scheduling, which is handled by the same staff). Adding the three costs together shows much less variation between the HAOs; the average was \$1.25 per case in Brown County vs. \$1.39 in St. Joseph County.

Enrollment Interview and Program Information

This is by far the most expensive component in the enrollment process. It includes the following activities.

- Providing program information before the interview
 - The HAO mails to the applicant a program information brochure and a list of documents that may be needed during the interview.
 - A brief slide show outlining program requirements is presented to each applicant at the office just prior to the interview (Brown County); or applicants are invited to attend a more elaborate program information session held at a separate time (St. Joseph County).
- Conducting the enrollment interview
 - The interviewer answers any questions the applicant may have about the program.
 - The interviewer asks a standard set of questions to determine eligibility (place of residence, household composition and size, assets, debts, income deductions, housing expenses).
 - The applicant must present documentation for financial information; if unable to do so, the applicant is asked to sign release forms authorizing the HAO to seek third-party verification.
 - The interviewer determines eligibility and calculates the allowance entitlement.
 - Eligible applicants review the participation agreement (that specifies mutual obligations of participants and the HAO), and sign if they wish to enroll.

In this function, costs per interview for the two HAOs are surprisingly similar, averaging \$16.92 per interview in Brown County over the study period and \$15.06 in St. Joseph County. Variation between the sites and over time was slight.

Enrollment Data Review

After the interview, the remaining activities in the enrollment process include error control and data processing. The first error control procedure is data review which, in Brown County works as follows:

- Computer editing: After the interview, the enrollment application is keypunched and run through a preliminary edit, which checks for valid codes, accurate calculations, and consistency within the form. Staff make corrections as needed.
- Manual review: The preliminary computer edit is followed by a manual review of the form, in which staff look for incorrect application of rules, unacceptable documentation, information copied incorrectly from documentation, and inaccurate use of codes.

The same activities are performed in St. Joseph County, but the sequence is reversed; the manual review is completed before the form is keypunched and subjected to the computer edit. In both sites, a staff unit different from the one responsible for the interview performs the manual review to reduce the possibility of fraud.

Over the study period, the process in Brown County was somewhat more efficient, with an average cost of \$4.91 per enrollee compared with \$6.50 in St. Joseph County.

The sequencing difference may explain the smaller unit cost in Brown County. When the computer checks the forms first, duplication of effort should not be a problem. When staff examine the forms first, however, they are likely to catch and correct errors the computer could have detected more economically.

Enrollment Verification

Verification is the HAOs' second major error-control technique. It is conducted as follows:

- Applications are selected for third-party verification on a sample basis. The sampling rate depends on the amount of undocumented income and asset information provided by the enrollee in the interview:

Sampling Rate	Selection Criteria
10%	<ul style="list-style-type: none">- 50% of total income documented. All income sources of \$2,000+ documented.- 50%+ of total assets documented (if assets are within \$1,000 of the limit, all must be documented).
33.3%	<ul style="list-style-type: none">- 10-49% of total income documented. All income sources of \$2,000+ documented.- 50%+ of total assets documented (if assets are within \$1,000 of the limit, all must be documented).
100%	<ul style="list-style-type: none">- Less documentation provided than required for 33.3% group.
100%	<ul style="list-style-type: none">- Any suspicious case, regardless of amount of documentation.
0%	<ul style="list-style-type: none">- Full documentation provided or applicant is ineligible.

- For each case selected, "request for information" forms are mailed to the relevant third parties.
- If the third party reports a discrepancy that would change allowance amount by more than \$10/month or would affect eligibility, the client is notified and has 30 days to contest the information before the change is made.

Brown County HAO verification costs averaged \$2.99 per case processed (Table 3.2). St. Joseph County had a higher average, \$4.63.

Enrollment Computer Processing

Computer work related to processing the enrollment form is much more elaborate and expensive than that required in processing preliminary applications.

- Preliminary computer edits are performed as discussed above.
- After correction of errors discovered in data review, the computer does a final edit check and adds the records for the case to the computer file.
- The computer file is maintained with records on all enrollment cases since the start of the program.
- The computer prints out weekly management reports.

In this function, Brown County costs were higher during the study period, averaging \$7.49 per enrollee, compared with a \$6.61 average for St. Joseph County.

Housing Evaluation

The computer processing of enrollment data marks the end of the first major component of intake--eligibility certification. The next major phase is housing certification. Its first two functions are described below:

- Housing evaluation
 - The evaluation is initiated when the request section of a housing unit certification form is filled out, usually during the enrollment interview.
 - The evaluator later calls the enrollee to confirm a specific appointment.
 - The evaluator inspects the interior and exterior of the dwelling to rate each of 39 items. If any one item fails, the dwelling is rated unacceptable.

Table 3.2

DIRECT COST PER CASE PROCESSED:
FUNCTIONS 12.32 THROUGH 21
(Constant June 1976 dollars)

<i>Function (Workload) Code^a and Title; Site</i>						
Item	12.32(14) Enrollment Verification		12.33(13) Enrollment Computer Process.		13.11(15) Housing Evaluation	
	Brown County	St. Joseph County	Brown County	St. Joseph County	Brown County	St. Joseph County
<u>Cost Per Case (1976 \$)</u>						
April-December 1976	3.76	8.51	8.72	6.86	13.80	15.46
January-June 1977	3.11	3.77	10.51	6.12	11.80	14.26
July-December 1977	3.71	4.09	6.80	5.36	10.13	13.27
January-June 1978	3.73	4.43	6.26	6.97	10.26	15.16
July-December 1978	.27	4.01	6.66	8.67	10.31	13.13
January-June 1979	1.34	3.16	5.37	5.91	9.31	12.16
Average	<u>2.99</u>	<u>4.63</u>	<u>7.49</u>	<u>6.61</u>	<u>11.12</u>	<u>14.05</u>
Coefficient of variation	.56	.41	.26	.17	.15	.09

<i>Function (Workload) Code^a and Title; Site</i>						
Item	13.12(15) Housing Require. Processing		13.2(13) Enrollee Services		21(M1 ÷ 12) Payments Operations	
	Brown County	St. Joseph County	Brown County	St. Joseph County	Brown County	St. Joseph County
<u>Cost Per Case (1976 \$)</u>						
April-December 1976	3.51	3.25	.46	6.50	.88	1.08
January-June 1977	2.41	2.63	1.50	6.22	.62	.73
July-December 1977	2.10	3.07	.61	7.16	.70	.57
January-June 1978	1.95	3.94	1.78	5.77	.60	.46
July-December 1978	1.84	3.35	1.54	7.76	.66	.52
January-June 1979	<u>1.61</u>	<u>3.37</u>	<u>.67</u>	<u>5.03</u>	<u>.49</u>	<u>.39</u>
Average	<u>2.32</u>	<u>3.21</u>	<u>.89</u>	<u>5.29</u>	<u>.67</u>	<u>.62</u>
Coefficient of variation	.30	.13	(b)	(b)	.20	.40

SOURCE: Rand analysis of HAO accounting records and Management Information Reports as tabulated in Appendixes B and D.

^aWorkload codes are defined in the stub of Table 4.1.

^bNot calculated because extent of variation is set by HAO policy.

- A checklist is mailed to the enrollee indicating items that must be repaired (if the unit failed) and less serious conditions that should be watched to prevent future failures.
- For 5 percent of all evaluations, a second independent quality-control evaluation is conducted by the evaluation supervisor or his deputy to ensure the accuracy of the initial evaluator's determinations.
- Housing requirements processing
 - The housing unit certification forms and the housing evaluation form are keypunched and processed through an edit program that checks for valid codes and consistency within each form. Errors are sent back for manual correction and resubmitted for storage.
 - If the dwelling is rated acceptable, the evaluation results are collated with data on housing expenses and (for renters) an acceptable lease agreement.
 - When all required data are assembled, a payment authorization is issued.

Housing evaluation costs per case completed averaged \$11.12 in Brown County, \$14.05 in St. Joseph County. The difference is in part explained by an added work requirement in St. Joseph County: the HAO there had to collect special research data for an "EHAP comparability panel" for a much larger share of its participants than was required in Brown County.

In housing requirements processing, the Brown County HAO appears more efficient, with an average cost of \$2.32 per case compared with \$3.21 for St. Joseph County (there were no differences in procedural requirements between the sites).

Enrollee Services

Neither HAO was expected to provide extensive services to help its enrollees meet program housing requirements; but original HAO rules called for two basic forms of assistance:

- Formal housing information sessions. All enrollees were to be invited to attend lectures at the HAO on topics that might help them as housing consumers--leases, landlord-tenant relationships, home purchase, housing standards and home improvement techniques, and neighborhood characteristics and available housing (for those considering moving).
- Equal opportunity legal services. Enrollees were to be encouraged to take advantage of HAO-funded legal services if they encountered discrimination in their search for better housing.

Regardless of intentions, circumstances warranted different treatments in the two sites as the programs evolved. In Brown County, attendance at formal information sessions was negligible; the practice was cancelled before the end of year one. In St. Joseph County, attendance at the sessions was also substantially below original expectations, but enough demand remained to justify offering them (although with limited frequency) throughout the experimental period. Equal opportunity legal services were always available in Brown County, but because of the small local minority population, the HAO received no enrollee requests for the service. In St. Joseph County, legal service demands warranted continued support expense.

During the April 1976-June 1979 study period, the Brown County HAO spent \$.89 per enrollee for services; this expense covered the cost of revising information brochures and sporadic staff time counseling enrollees on housing options or referring them to other agencies for help. In St. Joseph County, with its larger ongoing workloads, service costs average \$5.29 per enrollee.

MAINTENANCE COSTS

Below, we review April 1976-June 1979 unit costs for maintenance functions, following the same approach used in our review of the intake process.

Payment Operations

The payment operations function entails:

- Making monthly payments to recipient households
 - Based on client status as indicated in the central computer file, the computer system generates allowance payment checks for all households authorized to receive them each month, and prints envelopes ready for mailing.
 - Manual reconciliations are made at several points to ensure accuracy.
- Processing status changes affecting client payments
 - Payment transactions are required when a recipient household moves to another housing unit; changes its regular housing expenses (in some cases); has a change in allowance entitlement due to recertification; is suspended or terminated; or pays back the HAO for a security deposit advance or to clear a previous overpayment.
 - Most of the work in preparing these transactions is charged to other functions (e.g., recertification or housing requirements processing). Only computer processing costs are charged to the payments function.

Payments operations costs were similar in the two sites--\$.67 per recipient-month in Brown County, \$.62 in St. Joseph County (Table 3.2).

Semiannual Recertification

Each allowance program participant must undergo eligibility recertification twice each year. Annual recertification requires a complete interview similar to the one required at enrollment. Semiannual recertification is a simpler process:

- Client contact and processing.
 - Five to six months after the enrollment interview and annually thereafter, the computer system prepares a Semiannual Recertification Form, which is mailed to the client.
 - Household members and income sources from the last interview are preprinted on the form; the client must write in the current amounts for each income source and list any changes to household composition or income that have occurred since the last interview.
 - Each household has about one month to complete the form and return it to the HAO.
 - When the forms are returned, they are reviewed for completeness.
 - Follow-up interviews (by telephone or in person) are initiated by the HAO when a change is reported and data are insufficient to redetermine eligibility or allowance entitlement.
 - In Brown County, a separate staff unit does a manual review of the form, checking the accuracy of the person who handled initial processing. This practice is not followed in St. Joseph County.
 - When the form has been completed, any status changes are transcribed for keypunching. If allowance entitlement has been affected or if the client is now ineligible, appropriate forms are processed to alter the client's status or payments. Letters are mailed to notify the client of the recertification results.
- Verification

Information provided at semiannual is subject to the same type of third-party verification as the enrollment application. Cases are selected using sampling criteria that differ from those used for enrollment verification.

Sampling Rate	Selection Criteria
10%	- \$0-39 monthly income change reported.
33.3%	- \$40-99 monthly income change reported.
100%	- \$100+ monthly income change reported.
100%	- Suspicious cases or claimed disability not reported at last interview.
0%	- Full documentation or determined ineligible.

• Computer processing

- The computer produces materials for recertification (e.g., household status report (the most recent data for each client); mailing labels; and the semiannual recertification form that is mailed to the client).
- Data-processing staff and computer time are required for keypunching and running semiannual recertification results and related forms when changes are necessary.
- In processing the recertification forms, the computer conducts an edit similar to the enrollment processor edit.
- If errors are detected, the form is sent back for manual correction, then resubmitted for storage.
- The computer prints weekly statistical summaries.

Contact and initial processing cost averaged \$4.71 per case initiated (i.e., mailed to client) in St. Joseph County (Table 3.3). The cost was higher in Brown County (\$7.83), probably largely because of the extra review of the form by a separate staff unit. In Brown County verification cases cost an average of \$2.99 (exactly the same as the cost of verifying initial enrollments there). St. Joseph County verification cases cost \$3.47 (an amount lower than their cost for initial enrollment verification). Computer costs for semiannual

Table 3.3

DIRECT COST PER CASE PROCESSED:
FUNCTIONS 22.11 THROUGH 22.23

(Constant June 1976 dollars)

<i>Function (Workload) Code^a and Title; Site</i>						
Item	22.11(M3) Semiannual Recert. Contact & Process.		22.13(M4) Semiannual Recert. Verification		22.14(M5) Semiannual Recert. Computer Process.	
	Brown County	St. Joseph County	Brown County	St. Joseph County	Brown County	St. Joseph County
<u>Cost Per Case (1976 \$)</u>						
April-December 1976	9.94	7.17	4.27	2.13	2.35	1.83
January-June 1977	9.86	4.20	4.73	4.51	2.91	1.78
July-December 1977	8.04	4.44	2.71	2.56	2.11	1.88
January-June 1978	6.22	3.98	4.30	2.53	2.03	1.44
July-December 1978	6.93	4.06	2.04	3.66	1.92	2.42
January-June 1979	5.68	4.23	1.83	4.06	1.31	1.99
Average	7.83	4.71	2.99	3.47	2.09	1.88
Coefficient of variation	.23	.26	.38	.30	.25	(b)

<i>Function (Workload) Code^a and Title; Site</i>						
Item	22.21(M6) Annual Recert. Interview Sched.		22.22(M7) Annual Recert. Interview		22.23(M9) Annual Recert. Data Review	
	Brown County	St. Joseph County	Brown County	St. Joseph County	Brown County	St. Joseph County
<u>Cost Per Case (1976 \$)</u>						
April-December 1976	1.39	2.43	17.80	14.26	5.42	5.76
January-June 1977	.95	1.55	19.91	12.25	4.54	7.44
July-December 1977	1.94	1.01	13.50	12.57	5.12	5.13
January-June 1978	1.87	.55	13.57	13.29	3.87	4.46
July-December 1978	1.23	.01	13.62	12.76	5.37	4.56
January-June 1979	.67	.01	12.57	12.90	5.29	5.20
Average	1.34	.88	15.03	13.02	4.96	5.25
Coefficient of variation	.37	1.02	.29	.05	.12	.20

SOURCE: Rand analysis of HAO accounting records and Management Information Reports as tabulated in Appendixes B and D.

^aWorkload codes are defined in the stub of Table 4.1.

^bNot calculated because extent of variation is set by HAO policy.

recertification are more nearly the same in the two sites--\$2.09 per completed recertification in Brown County, \$1.88 in St. Joseph County.

Annual Recertification

Annual recertification is the most costly of all allowance program maintenance functions. In most dimensions, the process parallels that required for initial enrollment.

- Initiating the annual recertification; scheduling the interview
 - Initiating the process: About eleven months after the enrollment interview and annually thereafter, the computer produces a list of clients whose annual interview is due the following month.
 - Letters are mailed to the clients requesting that they contact the HAO to schedule an interview date. If a client fails to do so, the HAO attempts to call the household. Continued failure to make contact eventually results in termination for failing to complete recertification.
- Conducting the interview
 - The same questions are asked at the annual interview that were asked at enrollment. The emphasis is on determining if any changes have occurred. The entitlement is recalculated as appropriate.
 - If the household is found to be ineligible, the client is given a letter confirming this fact and stating that participation will be terminated.
 - After the interview, housing evaluation requests are filled out for those remaining eligible and enrolled; termination forms are filled out for those found ineligible.
- Data review
 - Manual editing: Same as for enrollment application.
 - Computer editing: After the manual review, the forms are keypunched and processed; errors caught by the computer are corrected, and the record is resubmitted for storage.

- If allowance payments need to be changed, adjustment forms are submitted to alter the amount on subsequent checks.
 - If errors are caught during the manual or computer reviews that result in a payment change of less than \$5 per month, a letter is sent to inform the client of the new amount.
 - If the change is more than \$5 per month, or if the correction results in ineligibility, the interviewer calls the client as well as mailing the notification.
- Verification

The sample selection criteria and verification procedures are the same as for the initial enrollment applications.
 - Computer processing
 - The computer produces materials for recertification (e.g., household status report, mailing labels, roster cards as control logs for the recertification process).
 - Recertification forms are keypunched and processed for storage. The computer conducts an edit similar to the enrollment processor edit. If errors are detected, the form is sent back for manual correction, then is resubmitted for final storage.
 - The computer prints weekly statistical summaries.

Annual recertification cost data are provided in Tables 3.3 and 3.4. In general, costs of these functions were similar for the two HAOs. The calculations put St. Joseph County's average scheduling expense at \$.88 per household due for recertification (compared with \$1.34 for Brown County), but as noted earlier, we believe that the St. Joseph County HAO allocated insufficient time to this function. The cost difference for interviews was comparatively small (\$15.03 in Brown County; \$13.02 in St. Joseph County); and quite small for data review (\$4.96 and \$5.25 respectively); verification (\$3.01 and \$2.86); and computer processing (\$4.88 and \$5.65).

Table 3.4

DIRECT COST PER CASE PROCESSED:
FUNCTIONS 22.24 THROUGH 22.34

(Constant June 1976 dollars)

<i>Function (Workload) Code^a and Title; Site</i>						
Item	22.24(M8) Annual Recert. Verification		22.25(M9) Annual Recert. Computer Process.		22.31(M11) Special Recert. Interview	
	Brown County	St. Joseph County	Brown County	St. Joseph County	Brown County	St. Joseph County
<u>Cost Per Case (1976 \$)</u>						
April-December 1976	4.39	2.84	4.87	4.22	21.25	15.33
January-June 1977	2.26	2.07	6.27	6.92	17.48	21.88
July-December 1977	2.64	1.47	5.00	5.46	22.06	26.12
January-June 1978	3.75	2.15	5.69	5.25	18.90	27.92
July-December 1978	2.11	5.29	4.31	7.11	16.00	22.51
January-June 1979	1.60	4.23	3.46	5.52	10.98	22.56
Average	<u>3.01</u>	<u>2.86</u>	<u>4.88</u>	<u>5.65</u>	<u>17.47</u>	<u>22.10</u>
Coefficient of variation	.38	.49	.20	.19	.22	.19

<i>Function (Workload) Code^a and Title; Site</i>						
Item	22.32(M11) Special Recert. Data Review		22.33(M10) Special Recert. Verification		22.34(M11) Special Recert. Computer Process.	
	Brown County	St. Joseph County	Brown County	St. Joseph County	Brown County	St. Joseph County
<u>Cost Per Case (1976 \$)</u>						
April-December 1976	12.30	6.36	5.25	3.34	6.80	4.77
January-June 1977	14.27	2.21	1.83	1.27	8.64	6.00
July-December 1977	5.97	2.36	4.83	1.51	6.49	8.27
January-June 1978	4.44	4.30	3.12	2.17	6.02	9.41
July-December 1978	3.36	6.97	2.31	7.09	4.38	11.75
January-June 1979	3.53	4.79	3.12	3.80	2.95	7.96
Average	7.26	4.55	3.54	2.72	5.70	7.68
Coefficient of variation	.65	.44	.40	.67	.39	.30

SOURCE: Rand analysis of HAO accounting records and Management Information Reports as tabulated in Appendixes B and D.

^aWorkload codes are defined in the stub of Table 4.1.

^bNot calculated because extent of variation is set by HAO policy.

Special Recertification

In the administrative design for the allowance program it was assumed that required recertifications every six months would keep HAO records reasonably consistent with household circumstances in most cases. We recognized, however, that special recertifications would be appropriate at other times if: (1) the household's situation indicated that a major income change could soon be expected; or (2) a major loss in nonallowance income (or change in household size) occurred.

- Types of special recertifications

HAO-initiated: The HAO requires special recertifications on a regular cycle if it is determined at enrollment or at a regular recertification that a household:

- has lost its primary source of income over the preceding 90 days; or
- has an adjusted gross income of zero.

Client-initiated: The HAO performs a special recertification when a client reports:

- moving to a new unit where relatives are living;
- relatives joining the enrolled household at the time of a move;
- a decrease in monthly income of more than \$40; or
- an increase in household size.

- Interview

For client-initiated special recertifications, the process begins when the client contacts the HAO. For HAO-initiated specials, the HAO uses a tickler file to follow up on a contact schedule established at the prior interview.

Initially, the HAOs collected special recertification data at an in-person interview or, for simpler cases, over the phone (client signatures and documentation being handled by mail). Later, both HAOs shifted to an approach more like the semiannual recertification; i.e., a simple form

is mailed to the client, the client notes status changes, signs the form and mails it back to the HAO.

- Data review and verification

Data review and verification functions are handled in the same way as in the semiannual recertification process. (Again, data review is performed by a separate staff unit in Brown County, but not in St. Joseph County.)

- Computer processing

Procedures and tasks are similar to those for semiannual recertification.

The cost of data collection for specials (by interview or mail-back form) averaged \$17.47 in Brown County and \$22.10 in St. Joseph County per eligible case processed.¹

The costs of data review, verification, and computer processing for specials were typically higher than the cost for the same functions in annual recertification. A difference in this direction is not unexpected; special recertification is a comparatively low-volume and sporadic operation.

Housing Recertification

The housing recertification function provides continued earmarking of assistance payments for housing purposes. It has three components paralleling those in intake:

- Housing reevaluation

- Annual: When a client remains eligible and enrolled after the annual recertification interview, the housing unit is reevaluated to confirm continued acceptability under HAO housing standards. If the dwelling fails, the client has

¹ These costs are not comparable to data collection costs for other recertifications because a different denominator is used. The HAOs did not maintain information on the number of special recertifications initiated.

about two months to repair (or move to an acceptable dwelling) before payments are suspended.

- Pre- and post-move: An enrollee may move to a new dwelling at any time, but can continue to receive allowances only if the dwelling is inspected and approved by the HAO.
- Procedures for reevaluations are essentially the same as for the initial evaluation.
- As in intake, independent quality-control evaluations are conducted to check 5 percent of all regular evaluations.

- Housing requirements processing

The procedures are the same as described above for initial evaluations.

- Recipient services

- Housing information--brochures and other information on home repair and maintenance and other relevant housing topics--is occasionally sent to recipients.
- Equal-opportunity legal services are still made available to recipients upon request if they encounter discrimination in searching for better housing.

Housing reevaluation costs per completed evaluation are almost exactly the same as for intake evaluations (averaging \$11.91 in Brown County, \$14.57 in St. Joseph County). Again, the added requirement for collecting research data in St. Joseph County is important in explaining the gap. The per-case costs of processing housing requirements were \$2.50 in Brown County and \$2.06 in St. Joseph County. Recipient services costs were small in both sites: \$.83 per recipient-year in Brown County; \$1.64 per recipient-year in St. Joseph County.

EXAMINING VARIATIONS IN DIRECT FUNCTION COSTS

So far in this section, we have focused on comparisons of absolute levels of costs for different functions in the two HAOs. Here, we look back over the data to examine variations in costs in different time periods. Specifically, we consider two questions: (1) did costs change consistently (up or down) over time (i.e., are the effects of a learning

curve evident); and (2) did differences in workload volumes processed in different periods influence costs (i.e., are scale effects evident)?

The Extent of Variation

Our interest in time and scale effects should not obscure a dominant observation: that in most functions, there was little variation to be explained. Costs of two activities (outreach, services) sometimes changed dramatically from one period to the next, but that was to be expected given the way expenditures for those activities were determined. For most of the 24 other functions identified in Tables 3.1 through 3.5, however, costs were quite stable. Coefficients of variation exceeded 0.40 for only three functions in Brown County and six in St. Joseph County; they fell below 0.25 for 12 Brown County functions and 14 St. Joseph County functions.

Variation Over Time

In the first four columns of Table 3.6, we show the average change in unit costs for each function in each site over the study period. Clearly, the direction of most of the variation that did occur over time was downward. Among the 24 functions where the nature of the work remained consistent, unit costs declined in 23 in Brown County and 14 in St. Joseph County. Some of the declines were substantial; unit costs were dropping at an annual rate of 20 percent or more for 12 of the Brown County functions and 5 of the St. Joseph County functions.

Although there were some exceptions, most of the functions involving computer operations exhibited less change in unit cost than the others, a result we anticipated. HAO data processing protocols were tightly specified and unchanging. There was less opportunity for efficiency improvements in these functions than in others where rules left more room for staff members to alter detailed techniques as they learned from experience, e.g., data review, verification.

Table 3.5

DIRECT COST PER CASE PROCESSED:
FUNCTIONS 23.11 THROUGH 23.2
(Constant June 1976 dollars)

<i>Function (Workload) Code^a and Title; Site</i>						
Item	23.11(M12) Housing Reevaluation		23.12(M12) Housing Require. Processing		23.2(M2) Recipient Services	
	Brown County	St. Joseph County	Brown County	St. Joseph County	Brown County	St. Joseph County
<u>Cost Per Case (1976 \$)</u>						
April-December 1976	14.52	16.66	2.98	2.94	1.02	3.52
January-June 1977	12.67	14.87	2.46	1.88	1.29	1.84
July-December 1977	11.45	14.26	2.50	1.71	.60	1.35
January-June 1978	11.20	15.97	2.43	1.58	1.58	1.71
July-December 1978	11.79	13.90	2.45	2.25	.11	.72
January-June 1979	9.16	12.33	2.12	2.15	.43	.87
Average	<u>11.91</u>	<u>14.57</u>	<u>2.51</u>	<u>2.06</u>	<u>.83</u>	<u>1.64</u>
Coefficient of variation	.15	.11	.11	.24	(b)	(b)

SOURCE: Rand analysis of HAO accounting records and Management Information Reports as tabulated in Appendixes B and D.

^aWorkload codes are defined in the stub of Table 4.1.

^bNot calculated because extent of variation is set by HAO policy.

Table 3.6

ANALYSIS OF CHANGE IN DIRECT FUNCTION COSTS
APRIL 1976 - JUNE 1979

Function	Average Change in Direct Cost Per Case (annualized) ^a				Partial Correlation Coefficients: Cost and Scale ^b	
	1976 (\$)		Percent of Average Cost		Brown County	St. Joseph County
	Brown County	St. Joseph County	Brown County	St. Joseph County		
<i>Intake Functions</i>						
<u>OUTREACH</u>	(c)	(c)	(c)	(c)	(c)	(c)
<u>ELIGIBILITY CERTIFICATION</u>						
<u>Screening and Scheduling</u>						
Receipt and Screening of Contacts	-.64	.48	-19.2	26.8	-.992	-.812
Application Computer Processing	-.02	-.08	-1.7	-14.8	-.743	-.790
Interview Scheduling	-.12	.12	-9.7	4.4	-.243	-.513
<u>Interview and Program Information</u>	-1.58	-.82	-9.3	-5.4	-.610	-.297
<u>Error Control and Data Processing</u>						
Enrollment Data Review	-2.00	-1.50	-40.7	-23.1	-.950	-.954
Enrollment Verification	-.96	-2.14	-32.1	-46.2	.160	-.518
Enrollment Computer Processing	-1.34	-.38	-17.9	-5.7	-.600	-.244
<u>HOUSING CERTIFICATION</u>						
<u>Housing Evaluation</u>						
Housing Evaluation	-1.80	-1.32	-16.2	-9.4	.259	-.837
Housing Requirements Processing	.76	.40	32.8	1.2	.608	-.957
<u>Enrollee Services</u>	(c)	(c)	(c)	(c)	(c)	(c)
<i>Maintenance Functions</i>						
<u>PAYMENTS OPERATIONS</u>	-.16	-.28	-23.9	-45.2	-.875	-.990
<u>ELIGIBILITY RECERTIFICATION</u>						
<u>Semiannual Recertification</u>						
SAR Client Contact and Processing	-1.70	-1.18	-21.7	-25.1	-.725	-.775
SAR Verification	-.98	.78	-32.8	22.5	-.630	.436
SAR Computer Processing	-.42	.06	-20.1	3.2	.481	-.525
<u>Annual Recertification</u>						
AR Interview Scheduling	-.28	-.96	-20.9	-109.1	.224	-.562
AR Interview	-2.10	-.54	-14.0	-4.1	-.734	-.318
AR Data Review	-.06	-.22	-1.2	-4.2	-.049	-.887
AR Verification	-1.12	.56	-37.2	19.6	-.801	-.901
AR Computer Processing	-.56	.52	-11.5	9.2	.363	-.503
<u>Special Recertification</u>						
SR Interview	-4.10	2.90	-23.5	13.1	-.895	-.046
SR Data Review	-3.50	-.62	-48.2	-13.6	.440	-.585
SR Verification	-.86	.18	-24.3	6.6	-.306	-.640
SR Computer Processing	-1.54	1.28	-27.0	16.7	-.487	-.418
<u>HOUSING RECERTIFICATION</u>						
<u>Housing Reevaluation</u>						
Housing Reevaluation	-2.14	-1.74	-18.0	-11.9	-.567	.474
Housing Requirements Processing	-.34	-.32	-13.5	-15.5	-.501	-.869
<u>Recipient Services</u>	(c)	(c)	(c)	(c)	(c)	(c)

SOURCE: Rand analysis of HAO Management Information Reports.

^aAverage of changes from period to period calculated from data in Tables 3.1 through 3.5.

^bPartial correlation coefficients, cost and scale independent of the effects of time. Cost data are from Tables 3.1 through 3.5. Scale is specified as number of workload cases processed during each period (from Appendix B). Time is specified as number of months from start of open enrollment to midpoint of each period.

^cNot calculated, since the extent of variation is set by HAO policy.

Scale Effects

The last two columns of Table 3.6 contain partial correlation coefficients quantifying for each function the relationship between unit costs and scale (number of cases processed) independent of the effects of time. As would be expected, most of the coefficients are negative (costs decrease as scale increases). However, the correlations were not strong for many functions. Of the 24 functions for which data are shown, only 8 in Brown County and 9 in St. Joseph County had coefficients between $-.7$ and -1.0 .

We had expected high inverse correlations for computer processing functions; computers can normally handle substantial increases in processing volumes with only marginal increases in cost; thus cost per unit of work should decrease as scale goes up. The expected high coefficients were found for payments operations and applications computer processing in both sites, but not for the other HAO computer functions. There were no strong or consistent patterns among other functions.

The correlation analysis suggests that scale was not a very important determinant of HAO direct function costs. This view is reinforced when we consider the lack of major cost differences between the two HAOs. The cost data show that neither site was clearly more efficient than the other. Brown County costs were higher for 13 functions; St. Joseph County costs were higher for the remaining 14. Where costs in one site substantially exceeded those in the other, the gap was often largely explained by a policy or procedural difference. In the remaining functions, the differences were seldom large, and tended to be smallest for the higher cost functions, e.g., enrollment and annual interviews.

Workloads in St. Joseph County were typically 1.5 to 2 times as large as those processed in Brown County over the study period. If scale economies were important, St. Joseph County costs should have been lower throughout. Scale might have stronger effects in either larger or smaller programs, but those effects do not appear significant over the size range in which the HAOs operated (serving from 3,000 to 6,500 recipients).

IV. TOTAL COSTS OF INTAKE AND MAINTENANCE

The unit costs in the preceding section are the foundation for determining reliable measures of total intake and maintenance costs. Because they have different denominators, however, they are like apples and oranges, and thus cannot simply be summed to derive the totals. As explained in Sec. II, we convert to common denominators via long-term workload relationships (Eqs. (2) and (3)).

In this section, we first perform the requisite analysis of workload requirements and derive total direct intake costs per new recipient and total direct maintenance costs per recipient-year over the study period for both HAOs. We next examine the costs of the remaining components of HAO administration--experimental support and administrative support. We can then show how total intake and maintenance costs, direct plus indirect, varied over the period.

LONG-TERM WORKLOAD REQUIREMENTS

To derive stable measures of intake function costs per new recipient (C_{si}), we multiply function costs per case presented above by a long-term workload requirement, i.e., the number of such cases that ultimately must be processed to yield one new recipient (U_{si}). The resulting costs may then be summed to derive the total direct cost of intake (S). A similar procedure is followed to calculate maintenance cost per recipient-year for individual functions (C_{mi}) and in total (M). Here, we examine five-year data to estimate the workload requirements.

Intake Workloads

Data on intake workloads per new recipient are given in Table 4.1. Ratios for the most important intake workloads are graphed in Fig. 4.1.

The number of applications received per enrollment interview conducted (Graph A) rose gradually over time in both sites, from a low of 1.32 (Brown County, year one) to a high of 1.50 (St. Joseph County, year five). Thus, throughout the period, a large number of

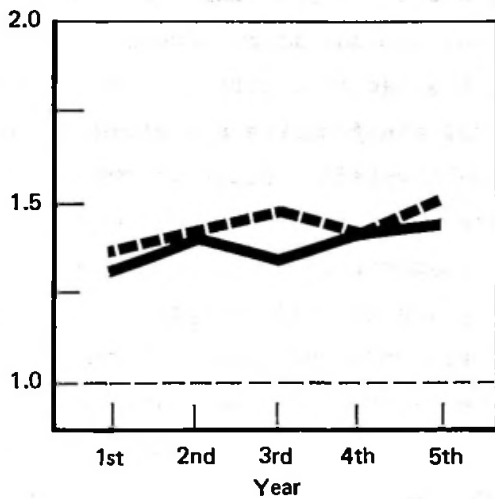
Table 4.1

INTAKE AND MAINTENANCE WORKLOAD RATIOS

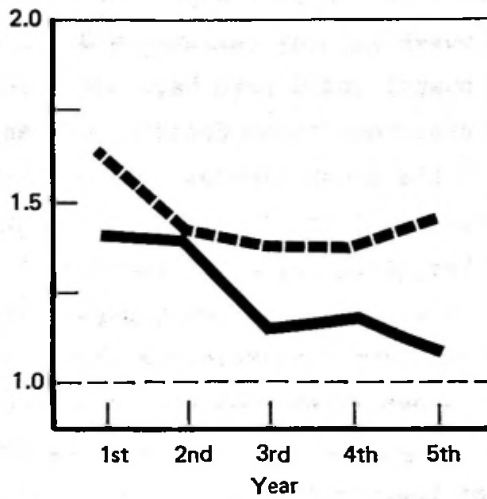
Workload and Site	Year 1	Year 2	Year 3	Year 4	Year 5	July 1977- June 1979
<i>Intake Workloads Per New Recipient</i>						
<u>BROWN COUNTY</u>						
I1 Applications submitted	2.55	2.29	1.85	1.98	1.89	1.94
I2 Interviews conducted	1.87	1.65	1.37	1.40	1.30	1.35
I3 Enrolled	1.34	1.18	1.14	1.17	1.17	1.17
I4 Intake verifications	.19	.69	.65	.51	.44	.47
I5 Intake housing evaluations	1.85	1.76	1.81	2.21	2.15	2.18
I6 New recipients	1.00	1.00	1.00	1.00	1.00	1.00
<u>ST. JOSEPH COUNTY</u>						
I1 Applications submitted	3.34	2.67	2.44	2.64	2.90	2.70
I2 Interviews conducted	2.40	1.88	1.67	1.86	1.94	1.81
I3 Enrolled	1.47	1.32	1.22	1.33	1.33	1.30
I4 Intake verifications	.82	.35	.46	.60	.66	.56
I5 Intake housing evaluations	2.13	1.83	2.05	1.90	1.87	1.96
I6 New recipients	1.00	1.00	1.00	1.00	1.00	1.00
<i>Maintenance Workloads Per Recipient-Year</i>						
<u>BROWN COUNTY</u>						
M1 Recipient years	(a)	1.00	1.00	1.00	1.00	1.00
M3 Semiannual recert. initiated	(a)	1.58	1.14	1.20	1.19	1.19
M4 Semiannual recert. verified	(a)	.08	.07	.05	.12	.08
M5 Semiannual recert. processed	(a)	1.21	1.02	1.04	1.02	1.03
M6 Annual recert. initiated	(a)	.90	.93	.96	.95	.95
M7 Annual recert. interview	(a)	.81	.76	.95	.79	.87
M8 Annual recert. verified	(a)	.49	.49	.30	.20	.25
M9 Annual recert. processed	(a)	.77	.74	.81	.82	.82
M10 Special recert. verified	(a)	.03	.07	.04	.05	.05
M11 Special recert. processed	(a)	.10	.13	.12	.15	.14
M12 Maintenance housing evaluations	(a)	1.03	.96	1.02	.89	.96
<u>ST. JOSEPH COUNTY</u>						
M1 Recipient years	(a)	1.00	1.00	1.00	1.00	1.00
M3 Semiannual recert. initiated	(a)	1.45	1.41	1.30	1.30	1.33
M4 Semiannual recert. verified	(a)	.05	.02	.06	.11	.05
M5 Semiannual recert. processed	(a)	1.16	1.13	1.04	.94	1.04
M6 Annual recert. initiated	(a)	.93	1.00	.98	.96	.98
M7 Annual recert. interviewed	(a)	.77	.86	.84	.81	.85
M8 Annual recert. verified	(a)	.16	.29	.24	.26	.26
M9 Annual recert. processed	(a)	.67	.82	.80	.76	.80
M10 Special recert. verified	(a)	.11	.11	.05	.04	.07
M11 Special recert. processed	(a)	.21	.14	.12	.12	.12
M12 Maintenance housing evaluations	(a)	.83	1.04	1.08	1.12	1.08

SOURCE: Rand analysis of HAO Management Information Reports as tabulated in Appendixes A and B.

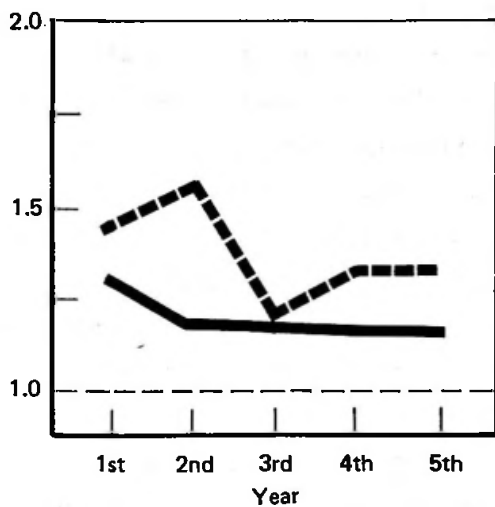
^aToo few cases to calculate stable ratios.



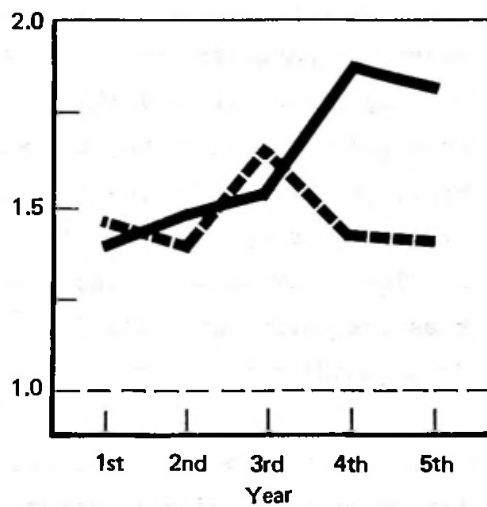
(A) Applicants/interview



(B) Interviews/enrollee



(C) Enrollees/new recipient



(D) Housing evaluations/enrollee

— Brown County (7/74-6/79)
- - - St. Joseph County (4/75-3/80)

Fig. 4.1 — Intake workload ratios

households that applied for the program decided not to take the next step toward participation. HASE survey data show that most such households (69 percent in Brown County, 82 percent in St. Joseph County) would have been declared ineligible had they attended the interview; their decision was an efficient one from the standpoint of their own time as well as that of the HAO staff. Actually, we suspect that many of these applicants were "shopping around" when they initially contacted the HAO; they did not firmly intend to follow through, even though after passing the initial telephone screening they said yes when asked if they wanted to apply. Given the persistence of the ratio over five years in both sites, it can be expected that this sort of behavior will be a permanent feature of the program.

Graph B shows the number of interviews required to yield one enrollee, a ratio exhibiting more variation between sites and over time. In year one, the Brown County HAO had to perform 1.42 interviews per enrollee. The ratio then declined and leveled off (ranging from 1.11 to 1.19 in years three through five). The curve for St. Joseph County has the same general shape, but is higher on the chart, starting with 1.64 in year one and ranging between 1.37 and 1.46 in years two through five.

These curves imply that applicants in later years were better able to assess their own eligibility; they declined the interview after first deciding they were unlikely to be accepted into the program. The recession of the winter of 1979-1980 may explain the slight increase in the St. Joseph County ratio in year five; applicants then comprised a higher proportion of recently unemployed households, less familiar with the program and its rules than the populations yielding the bulk of the applicants in years two through four. The very low Brown County HAO ratios in years three through five suggests that their more intensive approach to screening during the initial phone contact may have paid off. Spending some more money on screening may have led to saving more than a corresponding amount on wasteful interviews, i.e., those resulting in a determination of ineligibility.

Brown County also had consistently fewer enrollees that did not become recipients (Graph C). In year one there, it took 1.30 enrollees to yield one recipient; the curve in the remaining years was almost perfectly flat at 1.17 to 1.18. Although more variable, the St. Joseph County curve is, again, generally similar but higher on the chart; the new recipient yield improved over time, with the ratio remaining in the 1.22 to 1.33 range during the last three years.

Much more variation is found in the ratio of housing evaluations performed per enrollee (Graph D). In the first three years in Brown County, it ranged from 1.40 to 1.54. It then shot up to 1.89 in year four and stayed high in year five (1.84). The reason for the increase was an important change in program housing standards implemented in January 1977 (the mid-point of year three); this was a more stringent rule concerning lead-based paint hazards. The new standard increased the initial housing failure rate, thus more failed-unit reevaluations were required as enrollees attempted repairs.

The lead paint standard implementation date fell three months before the end of year two in St. Joseph County. The unexpected result shown in Graph D was that a similar increase in the housing evaluation per enrollee ratio did not occur during the last three years there. The reason was an offsetting reduction in the number of evaluations in another category; these were evaluations of preenrollment housing units for enrollees planning to move. The reduction was in part because of another program change. Nonelderly single-person households became eligible for the program in mid-1977. Many were living with relatives when enrolled--relatives who were often unwilling to let the HAO inspect their homes.

Maintenance Workloads

There was even less variation over time and between sites in maintenance workloads ratios. These ratios may seem surprising; they are not so clearly determined by fixed program rules as it might be first assumed. Table 4.1 provides the data for all maintenance workloads for program years two through five; ratios were not

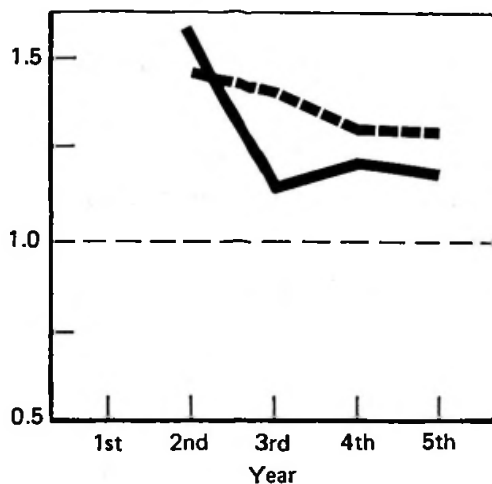
calculated for year one because only small numbers of maintenance cases were processed then.

Four of the most important ratios are plotted in Fig. 4.2. The most variation occurs in the number of semiannual recertifications initiated per recipient year (Graph A). In Brown County, the ratio dropped from 1.58 in year two and stayed in the 1.14 to 1.20 range in years three through five. The St. Joseph County HAO initiated 1.45 semiannuals per recipient-year in year two; the ratio there also declined but not by as much, reaching 1.30 in both years four and five.

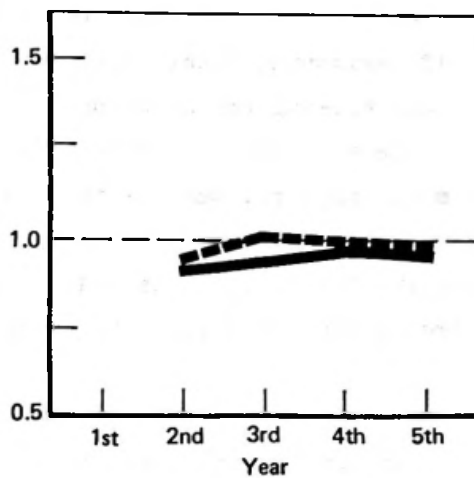
The number of annual recertifications per recipient-year in both sites hovered in a narrow range just below 1.0 (more precisely from 0.92 to 1.00) throughout (Graph B). The curves for special recertifications processed were yet flatter, remaining in the range of 0.12 to 0.19 per recipient-year each year in both sites (Graph C). The range for maintenance housing evaluations was higher and broader (0.83 to 1.12 per recipient year) but no strong directional trends are evidenced in either site (Graph D).

Program rules require that all continuing recipients have one semiannual recertification, one annual recertification, and one maintenance housing evaluation each year. Why, then, do the ratios for these workloads differ from 1.0 and why in particular do they differ so consistently from each other? The causal factor is the pattern of recipient attrition.

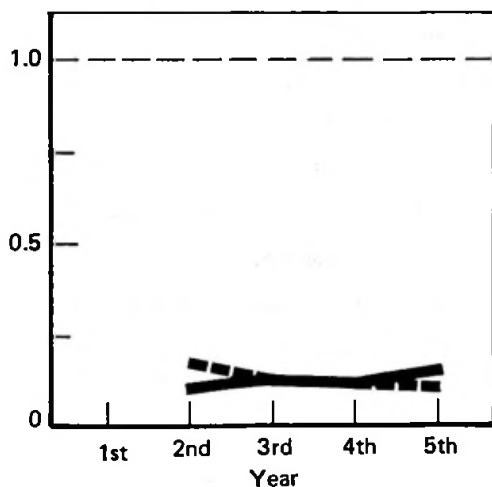
Suppose, for example, that we had a cohort of 100 new recipients. All were enrolled in January 1, and, after making required housing improvements, were authorized for payment on March 1. On May 1, two households dropped out, having logged-in four recipient-months (2 recipients, 2 months each). Semiannual recertifications were conducted for the remaining 98; 10 were found to be ineligible and terminated on July 1 (having completed 48 recipient-months). Another three dropped out voluntarily on September 1 (18 recipient months). Annual recertifications were initiated for the remaining 83, out of which 10 were terminated (on January 1 of the next year, having completed 100 recipient-months). The 73 remaining households had their annual housing reevaluation and completed their first year as



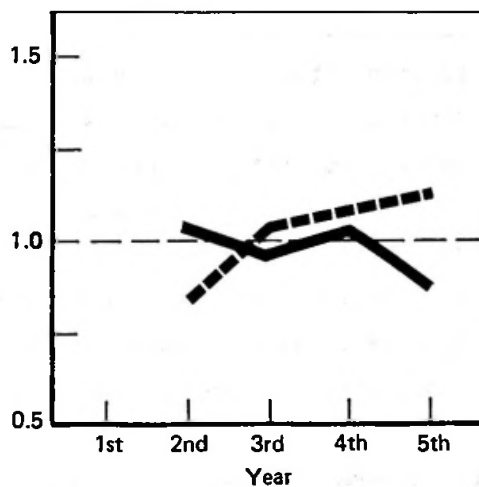
(A) Semiannual recertifications initiated / recipient-year



(B) Annual recertifications initiated / recipient-year



(C) Special recertifications processed / recipient-year



(D) Maintenance housing evaluations processed / recipient-year

— Brown County (7/74-6/79)
- - - St. Joseph County (4/75-3/80)

Fig. 4.2 — Maintenance workload ratios

recipients on March 1 ($73 \times 12 = 876$ recipient-months). In total, 1,046 recipient-months were on the books (87 recipient-years). Now we divide the workloads we have noted by 87: the HAO has initiated 1.13 semiannual recertifications, 0.95 annual recertifications and 0.84 annual housing reevaluations per recipient-year.¹

This cohort continues to suffer attrition in later years in a similar pattern, and new cohorts are added each month, each beginning a similar experience. Therefore, workload ratios of about the same magnitudes shown in the example will persist in the aggregate over time unless attrition rates change dramatically.

Long-Term Requirements

Intake workload requirements per new recipients typically declined in both sites during the first two years of program operations. The ratios were comparatively stable over the remaining three years. The ratio for intake housing evaluation was an exception: it increased significantly in the middle of the period because of a change in housing standards, but it, too, remained relatively stable thereafter. Maintenance workload ratios exhibited less variation throughout, but they varied least during the last two to three years.

We have accepted the aggregate ratios for the July 1977-June 1979 period (last column of Table 4.1) as our estimates of long-term (steady-state) workload requirements. That period covers years four and five in Brown County; in St. Joseph County it runs from 9 months before the beginning of year four to 9 months before the beginning of year five. It is a period in which costs as well as workload ratios remained relatively stable.

There is a striking similarity in the pattern of resulting maintenance ratios for the two HAOs; the St. Joseph County ratios differ from those in Brown County by an average of only 7 percent.

¹ These ratios for recertifications are within or close to the range of actual experience in both sites, as discussed earlier. The ratio for annual housing evaluations in the example is lower than the typical ratios for maintenance evaluations. The difference is accounted for by pre-move evaluations and failed-out reevaluations also performed for recipients.

There is more contrast between the sites in intake; St. Joseph County ratios differ from Brown County ratios by an average of 20 percent, with St. Joseph County workload requirements higher in all but one case.

DIRECT COSTS OF CLIENT INTAKE AND MAINTENANCE

Tables 4.2 and 4.3 show HAO intake costs per new recipient and maintenance costs per recipient-year. These costs for each function are the product of the function's cost per case processed (Tables 3.1 through 3.5) and its long-term workload requirement (Table 4.1).

Intersite Comparisons

Changes in total intake and maintenance ratios over the study period are plotted in Fig. 4.3. The marked difference in intake cost between the two HAOs (Graph A) merits examination. In the Brown County program in 1976, intake cost was \$113 per new recipient. The cost dropped by almost a third, to \$77 during the last half of 1977. It stayed at about that level over the next year and then declined slightly, to \$61 during the first half of 1979. St. Joseph County's 1976 cost (\$152) was a third higher than Brown County's 1976 cost and the pattern was erratic thereafter; declining in late 1977, increasing again in 1978, and once again decreasing in 1979.

Earlier in this section, we noted two factors that help account for the difference. First, St. Joseph County policies called for higher outreach and enrollee services expenditures. If the costs of those functions are subtracted (Graph B), the gap between site intake costs is substantially reduced. The Brown County curve changes only slightly; the St. Joseph County curve drops and changes shape. The second peak in St. Joseph County costs shown in Graph A was caused by an outreach campaign in the fall of 1978. Removing outreach and service costs eliminates that peak but does not smooth the curve entirely. A new peak emerges during the first half of 1978.

The second factor is the difference in intake workload requirements; the St. Joseph County HAO always had to process more applications, conduct more interviews, and enroll more households per

Table 4.2

DIRECT INTAKE COSTS PER NEW RECIPIENT, AND MAINTENANCE COSTS PER RECIPIENT-YEAR: BROWN COUNTY HOUSING ALLOWANCE PROGRAM

(Constant June 1976 \$)

Function	Apr-Dec 1976	Jan-Jun 1977	Jul-Dec 1977	Jan-Jun 1978	Jul-Dec 1978	Jan-Jun 1979
<i>Intake Cost Per New Recipient</i>						
<u>OUTREACH</u>	20.95	9.02	5.90	1.22	.50	1.67
<u>ELIGIBILITY CERTIFICATION</u>	56.28	64.41	45.31	47.25	45.94	36.31
<u>Screening and Scheduling</u>	10.84	15.35	11.56	12.60	10.57	7.14
Receipt and Screening of Contacts	6.63	10.11	6.46	6.91	5.72	3.57
Application Computer Processing	2.25	3.26	2.02	2.04	2.02	2.17
Interview Scheduling	1.96	1.98	3.08	3.65	2.83	1.40
<u>Interview and Program Information</u>	24.23	29.88	19.10	20.91	23.98	18.89
<u>Error Control and Data Processing</u>	21.21	19.18	14.65	13.74	11.39	10.28
Enrollment Data Review	9.24	5.42	4.95	4.67	3.47	3.37
Enrollment Verification	1.77	1.46	1.74	1.75	.13	.63
Enrollment Computer Processing	10.20	12.30	7.96	7.32	7.79	6.28
<u>HOUSING CERTIFICATION</u>	37.50	32.20	26.91	28.27	27.89	24.24
<u>Housing Evaluation</u>	36.96	30.44	26.20	26.19	26.09	23.46
Housing Evaluation	30.08	25.72	22.08	22.37	22.48	20.30
Housing Requirements Processing	6.88	4.72	4.12	3.82	3.61	3.16
<u>Enrollee Services</u>	.54	1.76	.71	2.08	1.80	.78
<u>TOTAL INTAKE</u>	114.73	105.63	78.12	76.74	74.33	62.22
<i>Maintenance Cost Per Recipient-Year</i>						
<u>PAYMENTS OPERATIONS</u>	10.56	7.44	8.40	7.20	7.92	5.88
<u>ELIGIBILITY RECERTIFICATION</u>	46.83	48.51	39.58	36.47	35.31	30.02
<u>Semiannual Recertification</u>	14.59	15.11	11.96	9.83	10.39	8.26
SAR Client Contact and Processing	11.83	11.73	9.57	7.40	8.25	6.76
SAR Verification	.34	.38	.22	.34	.16	.15
SAR Computer Processing	2.42	3.00	2.17	2.09	1.98	1.35
<u>Annual Recertification</u>	26.34	27.65	22.54	22.37	21.48	19.16
AR Interview Scheduling	1.32	.90	1.84	1.78	1.17	.64
AR Interview	15.49	17.32	11.74	11.81	11.85	10.94
AR Data Review	4.44	3.72	4.20	3.17	4.40	4.34
AR Verification	1.10	.57	.66	.94	.53	.40
AR Computer Processing	3.99	5.14	4.10	4.67	3.53	2.84
<u>Special Recertification</u>	5.90	5.75	5.08	4.27	3.44	2.60
SR Interview	2.97	2.45	3.09	2.65	2.24	1.54
SR Data Review	1.72	2.00	.84	.62	.47	.49
SR Verification	.26	.09	.24	.16	.12	.16
SR Computer Processing	.95	1.21	.91	.84	.61	.41
<u>HOUSING RECERTIFICATION</u>	17.82	15.81	13.99	14.66	13.78	11.26
<u>Housing Reevaluation</u>	16.80	14.52	13.39	13.08	13.67	10.83
Housing Reevaluation	13.94	12.16	10.99	10.75	11.32	8.79
Housing Requirements Processing	2.86	2.36	2.40	2.33	2.35	2.04
<u>Recipient Services</u>	1.02	1.29	.60	1.58	.11	.43
<u>TOTAL MAINTENANCE</u>	75.21	71.76	61.97	58.33	57.01	47.16

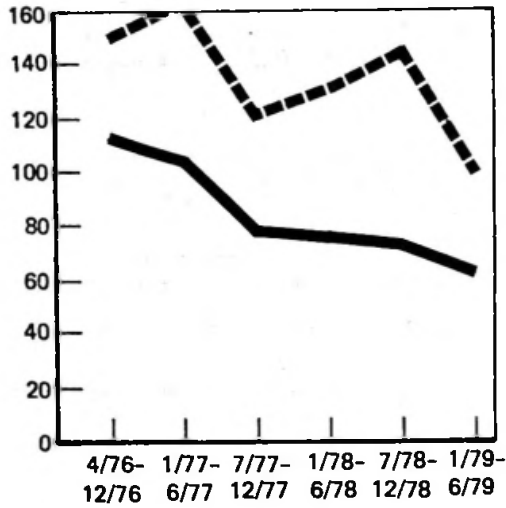
SOURCE: Rand analysis of HAO accounting records and Management Information Reports as tabulated in Appendixes B and D.

Table 4.3

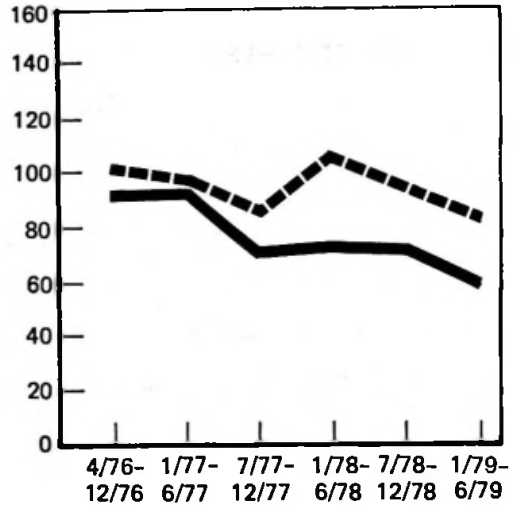
DIRECT INTAKE COSTS PER NEW RECIPIENT, AND MAINTENANCE COSTS PER RECIPIENT-YEAR: ST. JOSEPH COUNTY HOUSING ALLOWANCE PROGRAM
(Constant June 1976 \$)

Function	Apr-Dec 1976	Jan-Jun 1977	Jul-Dec 1977	Jan-Jun 1978	Jul-Dec 1978	Jan-Jun 1979
<i>Intake Cost Per New Recipient</i>						
<u>OUTREACH</u>	41.66	57.13	27.05	17.33	43.63	8.94
<u>ELIGIBILITY CERTIFICATION</u>	65.48	62.92	53.59	67.40	61.23	52.52
<u>Screening and Scheduling</u>	9.23	17.63	13.72	19.09	13.82	12.85
Receipt and Screening of Contacts	2.51	5.94	4.00	8.13	5.35	5.75
Application Computer Processing	1.46	1.46	1.70	1.81	1.48	.97
Interview Scheduling	5.26	10.23	8.02	9.15	6.99	6.13
<u>Interview and Program Information</u>	31.87	28.02	22.68	25.85	26.30	24.42
<u>Error Control and Data Processing</u>	24.38	17.27	17.19	22.46	21.11	15.25
Enrollment Data Review	10.69	7.20	7.93	10.92	7.59	5.80
Enrollment Verification	4.77	2.11	2.29	2.48	2.25	1.77
Enrollment Computer Processing	8.92	7.96	6.97	9.06	11.27	7.68
<u>HOUSING CERTIFICATION</u>	45.12	41.19	41.34	44.93	42.39	36.98
<u>Housing Evaluation</u>	36.67	33.10	32.03	37.43	32.30	30.44
Housing Evaluation	30.30	27.95	26.01	29.71	25.73	23.83
Housing Requirements Processing	6.37	5.15	6.02	7.72	6.57	6.61
<u>Enrollee Services</u>	8.45	8.09	9.31	7.50	10.09	6.54
<u>TOTAL INTAKE</u>	152.26	161.24	121.98	129.66	147.25	98.44
<i>Maintenance Cost Per Recipient-Year</i>						
<u>PAYMENTS OPERATIONS</u>	12.96	8.76	6.84	5.52	6.24	4.68
<u>ELIGIBILITY RECERTIFICATION</u>	38.18	35.34	33.03	32.24	35.13	33.06
<u>Semiannual Recertification</u>	11.55	7.67	8.00	6.92	8.10	7.90
SAR Client Contact and Processing	9.54	5.59	5.91	5.29	5.40	5.63
SAR Verification	.11	.23	.13	.13	.18	.20
SAR Computer Processing	1.90	1.85	1.96	1.50	2.52	2.07
<u>Annual Recertification</u>	23.23	23.96	20.52	20.17	21.58	20.65
AR Interview Scheduling	2.38	1.52	.99	.54	.01	.01
AR Interview	12.12	10.41	10.68	11.30	10.85	10.96
AR Data Review	4.61	5.95	4.10	3.57	3.65	4.16
AR Verification	.74	.54	.38	.56	1.38	1.10
AR Computer Processing	3.38	5.54	4.37	4.20	5.69	4.42
<u>Special Recertification</u>	3.40	3.71	4.51	5.15	5.45	4.51
SR Interview	1.84	2.63	3.13	3.35	2.70	2.71
SR Data Review	.76	.27	.28	.52	.84	.57
SR Verification	.23	.09	.11	.15	.50	.27
SR Computer Processing	.57	.72	.99	1.13	1.41	.96
<u>HOUSING RECERTIFICATION</u>	24.69	19.93	18.60	20.67	18.16	16.51
<u>Housing Reevaluation</u>	21.17	18.09	17.25	18.96	17.44	15.64
Housing Reevaluation	17.99	16.06	15.40	17.25	15.01	13.32
Housing Requirements Processing	3.18	2.03	1.85	1.71	2.43	2.32
<u>Recipient Services</u>	3.52	1.84	1.35	1.71	.72	.87
<u>TOTAL MAINTENANCE</u>	75.83	64.03	58.47	58.43	59.53	54.25

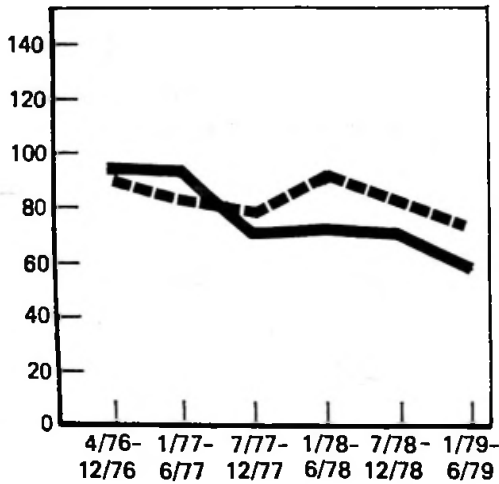
SOURCE: Rand analysis of HAO accounting records and Management Information Reports as tabulated in Appendixes B and D.



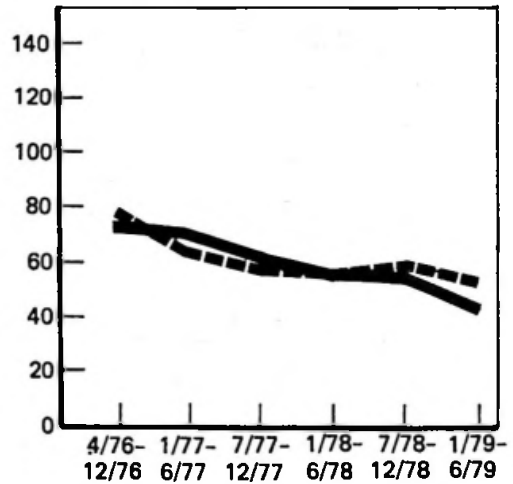
(A) Total intake cost per new recipient



(B) Intake cost per new recipient
Excluding outreach and services costs



(C) Intake cost per new recipient
Excluding outreach and service costs
(St. Joseph County costs adjusted)*



(D) Maintenance cost per recipient-year

————— Brown County

- - - - - St. Joseph County

*See text

Fig. 4.3 — Intake and maintenance direct cost ratios
(constant June 1976 dollars)

new recipient than the Brown County HAO. We can adjust for this difference by multiplying St. Joseph County unit costs by Brown County workload requirements. The resulting St. Joseph County curve (Graph C) retains the same shape as its counterpart in Graph B, but the cost is reduced at each point by about \$10.

With these adjustments, the 1976 and 1977 intake cost experience in the two sites is quite similar. However, the subsequent divergence caused by St. Joseph County's cost increase in early 1978 remains to be explained. There were, in fact, some special circumstances that probably account for the shift. Most important were the effects of a particularly severe winter. Record snowfalls in South Bend forced the HAO to formally close down operations several times; even when the HAO was open, barriers to travel by applicants due to be interviewed and HAO staff responsible for housing evaluations created serious operating problems. Secondly, the St. Joseph County HAO suffered serious staff attrition during the spring and summer of 1978. The HAO had by then operated for three years without much change in its original personnel. We would expect the time lost in recruitment and training new staff members and the inevitable efficiency gap between old and new staff to have an impact on unit costs.

The maintenance cost curves (Graph D) are markedly similar. Both HAOs administered program maintenance functions for \$74 per recipient-year in 1976. Brown County maintenance costs then declined almost linearly. The St. Joseph County curve declines a bit more rapidly during the first part of the study period and is more level during the last part. Still, observations over the last two years in both sites all fell within a fairly narrow range: from \$46 to \$61.

Interestingly enough, the early 1978 increase that altered St. Joseph County's intake cost curve did not appear in client maintenance costs. This is probably the result of a clear policy always followed by both HAOs; simply stated, "get the maintenance work done first." Rand and HAO management shared the view that HAO administrative systems might well break down if the staff got behind on regularly scheduled eligibility and housing recertifications. Therefore, when

work increased more rapidly than did staff resources, or when other operating problems arose, managers tried to keep maintenance activities running as usual, and let the intake work slow down, if necessary.

A glance at Fig. 4.3 confirms that operating efficiency at both HAOs significantly improved during the study period. Both intake and maintenance costs per unit of service declined. Continued cost reductions at this stage had not been anticipated when the programs were designed. We expected that efficiency would improve over the first months of program operations, and then level off. The period covered in the graphs, however, begins one year after the start of open enrollment in St. Joseph County and 21 months after that point in Brown County.

EXPERIMENTAL SUPPORT COSTS

Experimental support costs during the study period are shown in Table 4.4. These are expenses that were incurred by the HAOs to support research goals but would not have been required in a regular operational setting. Six types are involved:

- Site Monitoring. During the experimental phase, one HAO staff member was assigned to assist Rand in collecting data on changes in community conditions (increases in local utility prices, progress in other community development activities, government and institutional changes, etc.) that might not be picked up in Rand's surveys.
- Special Studies. Many HAO staff worked on data collection, tabulation, computer runs and report preparation to support the research. Charges include personnel costs and some computer time.
- Design and Policy Changes. Charges include the costs of staff and attorneys doing research on basic policy change options and new regulations and laws affecting the program.
- External Audits and Reviews. The HAOs have operated in a fishbowl. The U.S. General Accounting Office (GAO) conducted

Table 4.4

HOUSING ALLOWANCE PROGRAM ADMINISTRATIVE COST
COMPONENTS: APRIL 1976-JUNE 1979

Cost Component	Apr-Dec 1976	Jan-Jun 1977	Jul-Dec 1977	Jan-Jun 1978	Jul-Dec 1978	Jan-Jun 1979
<i>Brown County</i>						
<u>ADMINISTRATIVE COST</u> (1976 \$ in thousands, annualized)						
<u>Direct Cost</u>						
Program Operations						
Intake	206	132	116	108	102	97
Maintenance	218	216	212	199	197	165
Subtotal	424	348	328	308	300	262
Experimental Support	168	137	140	124	119	67
Total Direct Cost	592	485	468	432	419	329
<u>Indirect Cost</u>						
Administrative Support	508	481	508	472	466	441
Total Cost	1,100	965	976	905	885	770
<u>RATIO ANALYSIS</u>						
<u>Experimental Support Cost</u>						
As percent of total direct	28.4	28.3	29.9	28.8	28.5	20.3
As percent of total cost	15.3	14.2	14.3	13.8	13.5	8.7
<u>Indirect Cost</u>						
As percent of total direct	85.7	99.2	108.5	109.3	111.3	134.1
As percent of total cost	46.1	49.8	52.0	52.2	52.7	57.3
<i>St. Joseph County</i>						
<u>ADMINISTRATIVE COST</u> (1976 \$ in thousands, annualized)						
<u>Direct Cost</u>						
Program Operations						
Intake	473	510	339	257	364	264
Maintenance	262	279	306	345	326	316
Subtotal	735	790	645	602	690	580
Experimental Support	178	205	151	128	202	83
Total Direct Cost	913	995	797	730	892	663
<u>Indirect Cost</u>						
Administrative Support	756	740	725	697	661	666
Total Cost	1,669	1,735	1,522	1,427	1,553	1,329
<u>RATIO ANALYSIS</u>						
<u>Experimental Support Cost</u>						
As percent of total direct	19.5	20.6	11.5	17.5	22.7	12.5
As percent of total cost	10.7	11.8	10.0	8.9	13.0	6.2
<u>Indirect Cost</u>						
As percent of total direct	82.8	74.4	91.0	95.5	74.1	100.4
As percent of total cost	45.3	42.6	47.6	48.9	72.6	50.1

SOURCE: Rand analysis of HAO accounting records and Management Information Reports as tabulated in Appendixes B and C.

a major audit of the program in Brown County, and there have been several other independent audits and studies by HUD staff and contractors. Charges include HAO personnel costs associated with supporting these reviews.

- Housing Evaluation Computer System. The HAO housing evaluation function was initially designed to operate without computer support. A computer system was developed and implemented solely to provide research data for Rand. Experimental support charges here include the personnel costs and computer time involved.
- Nonpersonnel Costs. In analyzing detailed accounting records, we identified expenditures that could clearly be allocated to experimental support in the following accounts: consultants, intercity travel, telephone and telegraph, and personnel moving and relocation.

Rules for allocating object-class costs to experimental support categories are given in Sec. II of Kingsley and Schlegel, 1979. As noted there, the categories above do not really account for all possible savings the HAOs could have realized if the programs had not been operated as a part of a social experiment. However, our accounting systems were not refined enough to allow us to cleanly separate such costs (mainly related to the operation of the client data-processing system) from the costs of program operations.

In Brown County, experimental support, as defined, accounted for from 13.5 to 15.3 percent of total administrative expenditures between April 1976 and December 1978, but then dropped sharply to 8.7 percent in the first half of 1979 (overall average 13.5 percent). St. Joseph County experimental support costs ran at similar absolute levels, thus representing a smaller percentage of total costs there (overall average 10.2 percent).

ADMINISTRATIVE SUPPORT (INDIRECT) COSTS

From April 1976 through June 1979, annualized administrative support expenditures ranged from \$441,000 to \$508,000 in Brown County, and from

\$661,000 to \$756,000 in St. Joseph County (Table 4.4). These costs are grouped in four major categories:

- General Management. This category includes personnel costs for HAO section supervisors and top management staff while working on statistics and reporting, staff training, quality control, press and community relations, program research and development, and other management tasks. It accounted for 46 percent of the administrative support total in Brown County, 40 percent in St. Joseph County.
- Financial Management. Including personnel costs for managers and accountants working on budgeting, cost control, and accounting assignments. The category accounted for an average of 4 percent of all administrative support costs in Brown County; 7 percent in St. Joseph County.
- Personnel and Administrative Services. Includes personnel costs for all HAO secretaries, receptionists, and mail clerks, as well as staff responsible for personnel management and purchasing. It made up 16 percent of the Brown County administrative support total; 13 percent of the St. Joseph County total.
- Nonpersonnel Costs. This category includes all nonpersonnel expenditures that could not be allocated as direct costs to various other HAO functions. Its principal component is office rent. It accounted for 35 percent of the Brown County administrative support total; 39 percent in St. Joseph County.

Our definition of administrative support costs was established to conform as far as possible to the definition used in the Administrative Agency Experiment (AAE), another component of EHAP (see Maloy, Madden, et al., 1977). It differs substantially from commonly used definitions of "overhead" (see Kingsley and Schlegel, 1979). For example, payments for employee leave and fringe benefits are allocated as direct costs in our accounts, not considered as an indirect cost as they are in many organizations. Nonetheless, our structure remains

useful for comparisons of HAO costs over time, comparisons between the HAOs, and comparisons with the AAE experience.

Both HAOs were able to substantially improve efficiency in administrative support over the study period. Between April 1976 and June 1979 program workloads increased (intake workloads remained relatively constant while maintenance workloads grew), yet administrative support costs decreased by about 12 percent in both sites.

This result was unanticipated. Administrative support activities are traditionally assumed to be relatively fixed, whereas expenditures on direct functions like enrollment or housing evaluation are variable. When direct workloads increase, processing staff can be increased proportionately. Proportionate increases in office space or accountant services should not be required. Administrative support expenditures should remain relatively stable. Our particular definition for the administrative support account, however, includes many variable as well as fixed components (e.g., office supplies); thus some growth with increasing program size might have been expected.

We have no simple explanation for how HAO managers were able to reduce administrative support costs. There were no major changes in the "technology" at either site during the study period. We believe the reduction is the result of a concerted effort by managers to reduce costs in all possible ways during this time. The point is discussed further later in this section.

For planning purposes, it is also useful to examine the relationship between administrative support (indirect) costs and direct costs. These relationships during our study period for the two HAOs are plotted in Fig. 4.4. The observations on the left side of the chart are for the Brown County HAO. In April-December 1976 when the HAO was spending at an annual rate of \$424,000 for program operations, it spent \$.87 on indirect functions for every dollar it spent in direct costs. Total program operations costs then decreased in each subsequent period and as they did so (moving to the left on the chart), the indirect-direct ratio increased. By January-June 1979, program operations expenditures had dropped to \$262,000 per

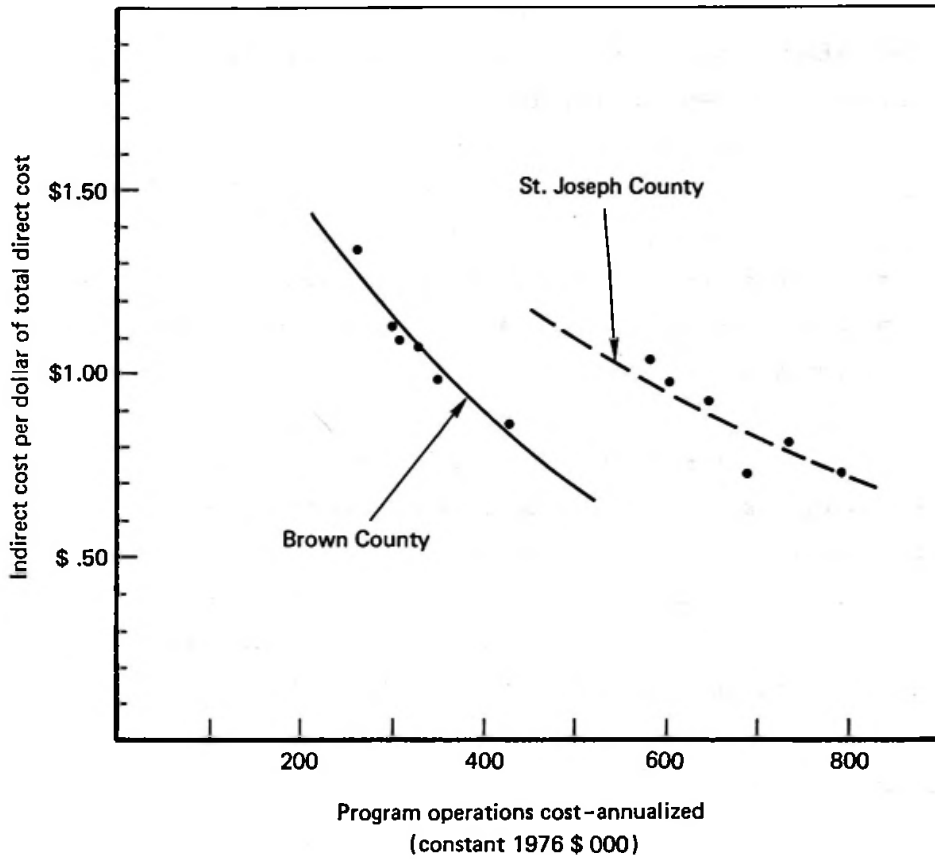


Fig. 4.4— Indirect-direct cost relationships

year, and an expenditure of \$1.34 on indirect functions was required per dollar of direct cost.

St. Joseph County program operations expenditures (right-hand side of the chart) increased and decreased several times during the period (so the observations are not in order); but a similar relationship existed. Indirect costs were low (\$.74 per dollar of direct cost) when program expenditures were highest (\$790,000 per year in January-June 1977), and high (\$1.00 per dollar of direct cost) when program expenditures were lowest (\$580,000 in January-June 1979). As would be expected, St. Joseph County, which consistently spent more for direct program operations, had generally lower indirect-direct cost ratios than Brown County, but the St. Joseph County ratios were in three instances above the lowest Brown County ratio.

To examine these relationships further we used the data to fit three curves (Brown County data only; St. Joseph County data only; and data from both sites) of the form:

$$C = C_0 e^{-bx}$$

where C = Indirect cost per dollar of direct cost,
 x = Annualized direct program operations costs, and
 C_0 = Constant term

Statistics are presented in the table below. Although the regression using the data from both sites explains 69 percent of the variation, and the scale coefficient is significant (.01 level), the adjusted R^2 s in the separate site regressions are higher (slightly higher for St. Joseph County and substantially so for Brown County). The resulting curve for Brown County falls below the St. Joseph County curve at the same level of program operations expenditure (Fig. 4.4).

	Brown County	St. Joseph County	Both Sites
Coefficient (b)	-.00259	-.00140	-.00077
(t -statistic)	(7.910)**	(3.622)*	(5.067)**
Constant ($\ln C_0$)	.9185	.7904	.3456
Adjusted R^2	.92	.71	.69
Standard error	.040	.070	.097

*Significant at the .05 level.

**Significant at the .01 level.

How are we to interpret these findings? We suspect that the administrative design for the program was better suited to the Brown County scale (average of 51 employees). At this level, the HAO Director could become familiar with the work of every staff member; this was not possible at the St. Joseph County HAO, which had on the average 76 employees.

Optimum-firm size theory suggests that there might well have been an important threshold between the scales at which the two HAOs operated. If the Brown County HAO had grown to the size of the St. Joseph County HAO, it might have jumped from one curve to the other; but if the St. Joseph County HAO had been larger still, the new scale might have permitted a yet more efficient administrative support technology, resulting in an indirect-direct cost ratio lower than any achievable in Brown County's actual operating range.

LONG-TERM TOTAL COSTS OF CLIENT INTAKE AND MAINTENANCE

To calculate the total cost of client intake and maintenance, it is necessary only to multiply the direct costs (Tables 4.2 and 4.3) by the appropriate indirect-direct cost ratio. The resulting curves for the two HAOs over the April 1976-June 1979 study period have about the same shape as those for direct costs (Fig. 4.3), but the values are of course much larger.

Total Brown County intake costs dropped from \$210 per new recipient in April-December 1976 to \$143 in January-June 1979; maintenance costs there declined from \$138 to \$109 per recipient-year over the same period. St. Joseph County total intake costs range from \$279 (January-June 1977) to \$196 per new recipient (January-June 1979). St. Joseph County total maintenance costs ranged from \$138 (April-December 1976) to \$110 per recipient-year (January-June 1979); the same as Brown County costs in the same periods. Thus, even though the indirect-direct cost ratio in both sites increased as outlays for direct program operations declined, the effects were more than offset by improved efficiency.

These represent substantial improvements in efficiency considering the stage at which they occur in allowance program history. Using only the costs given in the paragraph above, average annual decreases of 13.6 percent and 16.2 percent in intake costs (Brown County and St. Joseph County respectively) are implied; total maintenance costs decreased by 8.6 percent per year in both sites.

What accounts for these improvements? There were no significant changes in HAO systems or procedures between 1976 and 1979 to explain

them. We think they occurred because of reasonably persistent efforts by the HAOs to economize wherever possible in all aspects of program operations. Their sponsors and governing bodies clearly emphasized administrative efficiency, motivated in part by public spotlight in which the experiment had to operate.² However, we think the managers and staffs of the HAOs deserve most of the credit. Both HAOs prepared monthly reports on expenditure changes and joined with Rand staff in periodic statistical analysis of staffing and other resource requirements. They also held regular "cost control reviews" in which the Chief of Finance and Administration reviewed last-period expenditure rates in relation to his previous targets with the HAO director and recommended new targets and cost saving initiatives for the period ahead.

There is one alternative hypothesis. In earlier research (Kingsley, 1979), we found that some types of participants generate more work for the HAOs than others, e.g., require more enrollment interviews per enrollee (because a higher proportion of all interviewees turn out to be ineligible); take a longer period of time in the interview; or request more housing evaluations. Suppose that between 1976 and 1979 the composition of participants changed and the types that were easier to deal with grew substantially as a proportion of the total. That indeed would have reduced per-unit costs without any change in real efficiency. The task of measuring the effects of participant characteristics on administrative cost is complex; it is addressed in the next section.

Regardless of the cause, we doubt that HAO productivity will continue to improve at these rates over the next few years. Note that the largest portion of the cost declines occurred between April-December 1976 and July-December 1977. Although still declining, the cost curves were comparatively flat thereafter.

² An industrialist who was one of the initial local members of the HAO Board of Trustees in Brown County believes that the HAO's use of "business methods" and emphasis on administrative efficiency was one of the keys to the program's acceptance and subsequent success there. He said that those factors were always significant when he discussed the program with other community leaders. (Interview with George Kress, December 1977.)

Available data do not allow us to predict future costs with a high level of accuracy. However, we believe that the range of costs shown for the last two years (July-December 1977 through January-June 1979) offer reasonable, if somewhat conservative, bounds for future expectations. We have accepted the averages for that period as our estimates of long-term (steady-state) costs (Table 4.5).

EFFECTS OF ATTRITION ON ADMINISTRATIVE COST

We have seen that participant attrition rates set most workload requirements in both intake and maintenance; however, we need to know the effect of attrition on administrative cost. To estimate that effect, we averaged cost and workload requirements presented above for the two HAOs and then modified the workload ratios to present a case with no attrition whatsoever (Table 4.6).

In the intake phase, every applicant would be authorized for payment eventually. It would be necessary to process only one application, one interview, and one enrollment per new recipient. The number of verifications and housing evaluations per enrollee would probably remain the same, but even here workload requirements decline, since each enrollment would yield a recipient. In total, intake cost per new recipient would decline by one third (from \$194 to \$130).

With no attrition in the maintenance phase, costs would actually increase slightly; an outcome that at first seems surprising. If no recipient were ever terminated, there would be one semiannual recertification initiated per recipient-year (down from 1.26 with attrition) and one annual processed (up from 0.81). The number of housing evaluations per recipient-year would go up. One annual reevaluation would be required (up from 0.70), and we can assume the same ratios for pre-move evaluations and failed unit reevaluations as in the attrition case. All in all, the no-attrition case requires fewer of the less expensive tasks (semiannuals) and more of the more expensive (annual recertifications and housing evaluations). Maintenance cost per recipient-year would increase by 16 percent (from \$115 to \$134).

Table 4.5

ESTIMATED LONG-TERM INTAKE COSTS PER NEW RECIPIENT
AND MAINTENANCE COSTS PER RECIPIENT-YEAR

Function	Brown County			St. Joseph County		
	1976 \$		Percent of Total Cost	1976 \$		Percent of Total Cost
	Direct Cost	Total Cost		Direct Cost	Total Cost	
<i>Intake Cost Per New Recipient</i>						
<u>OUTREACH</u>	2.37	5.10	3.3	24.03	45.57	19.9
<u>ELIGIBILITY CERTIFICATION</u>	43.45	93.42	60.9	58.02	110.01	47.9
<u>Screening and Scheduling</u>	10.25	22.03	14.4	14.44	27.38	11.9
Receipt and Screening of Contacts	5.56	11.95	7.8	5.55	10.52	4.6
Application Computer Processing	2.02	4.34	2.8	1.47	2.79	1.2
Interview Scheduling	2.67	5.74	3.8	7.42	14.07	6.1
<u>Interview and Program Information</u>	20.52	44.12	28.7	25.02	47.44	20.7
<u>Error Control and Data Processing</u>	12.68	27.27	17.8	18.56	35.19	15.3
Enrollment Data Review	4.10	8.82	5.8	7.77	14.73	6.4
Enrollment Verification	1.28	2.75	1.8	2.19	4.15	1.8
Enrollment Computer Processing	7.30	15.70	10.2	8.60	16.31	7.1
<u>HOUSING CERTIFICATION</u>	25.58	55.00	35.8	38.92	73.79	32.2
<u>Housing Evaluation</u>	24.45	52.57	34.2	32.48	61.58	26.9
Housing Evaluation	20.60	44.29	28.8	25.88	49.07	21.4
Housing Requirements Processing	3.85	8.28	5.4	6.60	12.51	5.5
<u>Enrollee Services</u>	1.13	2.43	1.6	6.44	12.21	5.3
<u>TOTAL INTAKE</u>	71.40	153.52	100.0	120.97	229.37	100.0
<i>Maintenance Cost Per Recipient-Year</i>						
<u>PAYMENTS OPERATIONS</u>	7.32	15.74	13.3	5.76	10.92	10.0
<u>ELIGIBILITY RECERTIFICATION</u>	34.44	74.05	62.4	33.41	63.34	57.9
<u>Semiannual Recertification</u>	9.94	21.37	18.0	7.79	14.77	13.5
SAR Client Contact and Processing	7.87	16.92	14.3	5.56	10.54	9.6
SAR Verification	.19	.41	.3	.25	.47	.4
SAR Computer Processing	1.88	4.04	3.4	1.98	3.76	3.5
<u>Annual Recertification</u>	20.79	44.70	37.7	20.41	38.69	35.4
AR Interview Scheduling	1.35	2.90	2.4	.37	.70	.6
AR Interview	11.07	23.80	20.1	10.84	20.55	18.8
AR Data Review	3.89	8.37	7.0	3.81	7.22	6.6
AR Verification	.86	1.85	1.6	.79	1.50	1.4
AR Computer Processing	3.62	7.78	6.6	4.60	8.72	8.0
<u>Special Recertification</u>	3.71	7.98	6.7	5.21	9.88	9.0
SR Interview	2.28	4.90	4.1	3.21	6.09	5.6
SR Data Review	.58	1.25	1.0	.60	1.14	1.0
SR Verification	.19	.41	.4	.19	.36	.3
SR Computer Processing	.66	1.42	1.2	1.21	2.29	2.1
<u>HOUSING RECERTIFICATION</u>	13.42	28.85	24.3	18.49	35.07	32.1
<u>Housing Reevaluation</u>	12.75	27.41	23.1	17.33	32.87	30.1
Housing Reevaluation	10.47	22.51	19.0	15.26	28.94	26.5
Housing Requirements Processing	2.28	4.90	4.1	2.07	3.93	3.6
<u>Recipient Services</u>	.67	1.44	1.2	1.16	2.20	2.0
<u>TOTAL MAINTENANCE</u>	55.18	118.64	100.0	57.66	109.33	100.0

SOURCE: Rand analysis of HAO accounting records and Management Information Reports as tabulated in Appendixes B and D.

Table 4.6

EFFECTS OF ATTRITION ON ADMINISTRATIVE COSTS

Function	HAO Averages			No Attrition	
	Total Cost Per Case Processed	Cases Per New Recip. or Recip. Year	Total Cost Per New Recip. or Recip. Year	Cases Per New Recip. or Recip. Year	Total Cost Per New Recip. or Recip. Year
<i>Intake Costs Per New Recipient</i>					
<u>OUTREACH</u>	11.05	2.32	25.63	1.00	11.05
<u>ELIGIBILITY CERTIFICATION</u>					
<u>Screening and Scheduling</u>					
Receipt and Screening of Contacts	4.92	2.32	11.41	1.00	4.92
Application Computer Processing	1.56	2.32	3.61	1.00	1.56
Interview Scheduling	4.33	2.32	10.04	1.00	4.33
<u>Interview and Program Information</u>	28.80	1.58	45.51	1.00	28.80
<u>Error Control and Data Processing</u>					
Enrollment Data Review	9.61	1.23	11.82	1.00	9.61
Enrollment Verification	6.27	.52	3.26	.42	2.63
Enrollment Computer Processing	13.07	1.23	16.07	1.00	13.07
<u>HOUSING CERTIFICATION</u>					
<u>Housing Evaluation</u>					
Housing Evaluation	23.30	2.07	48.23	1.68	39.14
Housing Requirements Processing	5.17	2.07	10.70	1.68	8.69
<u>Enrollee Services</u>					
Enrollee Services	5.99	1.23	7.37	1.00	5.99
<u>TOTAL INTAKE</u>			193.65		129.79
<i>Maintenance Costs Per Recipient-Year</i>					
<u>PAYMENTS OPERATIONS</u>	1.11	12.00	13.33	12.00	13.32
<u>ELIGIBILITY RECERTIFICATION</u>					
<u>Semiannual Recertification</u>					
SAR Client Contact and Processing	10.96	1.26	13.81	1.00	10.96
SAR Verification	4.11	.09	.37	.07	.29
SAR Computer Processing	3.79	1.03	3.90	1.00	3.79
<u>Annual Recertification</u>					
AR Interview Scheduling	1.88	.96	1.80	1.00	1.88
AR Interview	27.89	.82	22.87	1.00	27.89
AR Data Review	9.89	.81	8.01	1.00	9.89
AR Verification	6.30	.23	1.45	.28	1.76
AR Computer Processing	10.44	.81	8.46	1.00	10.44
<u>Special Recertification</u>					
SR Interview	37.64	.14	5.27	.14	5.29
SR Data Review	8.14	.14	1.14	.14	1.14
SR Verification	6.33	.06	.38	.06	.38
SR Computer Processing	12.71	.14	1.78	.14	1.78
<u>HOUSING RECERTIFICATION</u>					
<u>Housing Reevaluation</u>					
Housing Reevaluation	26.26	.98	25.73	1.40	36.76
Housing Requirements Processing	4.50	.98	4.41	1.40	6.30
<u>Recipient Services</u>					
Recipient Services	1.82	1.00	1.82	1.00	1.82
<u>TOTAL MAINTENANCE</u>			114.53		133.69

SOURCE: "HAO Averages" are unweighted averages of long-term HAO cost and workload experience in the two sites, calculated from Tables 3.1 through 3.5, and from Table 4.1. Figures in the "No Attrition" columns are the corresponding values that would result from the elimination of all attrition in both the intake and maintenance phases (see text).

Assuming the program ran forever, intake cost would all but vanish ($\$130$ divided by infinity) and total administrative cost per recipient-year would verge on $\$134$, an 18 percent reduction from the HAOs' actual $\$163$ average. A program without attrition is, of course, impossible, but it should be helpful for program managers to understand the range of its possible effect.

What would happen to costs under a more realistic assumption, say the average duration of reciprocity increased from four to five years? Intake cost per recipient-year would be $\$39$ ($\$194$ divided by five). We estimate that maintenance cost would increase to $\$120$ per recipient-year. Therefore, the total would be slightly reduced, from $\$163$ to $\$159$.

V. INFLUENCE OF PARTICIPANT CHARACTERISTICS
ON ADMINISTRATIVE COST

Despite the fact that the two HAOs operated in different locations and were staffed by different people, there were few notable differences in their administrative performance. When measured per unit of service provided, their costs were quite similar. This does not mean, however, that the same outcomes should be expected if the program were implemented in other locations. Cost experience in other programs (some of which will be documented in Sec. VI) demonstrates that administrative performance can vary significantly when the "same program" is operated by different agencies.

This section discusses some of the factors that cause such variation. We first identify several factors we judge to be of importance and then analyze one in detail--the characteristics of participants.

DETERMINANTS OF ADMINISTRATIVE COST

Below, we discuss six factors that we believe can substantially influence administrative costs in a government assistance program, even assuming a fixed basic program design. Our hypothesis is that HAO administrative performance in the two Supply Experiment sites was uniform because the following determinants were similar (or at least not notably different) in both sites:

1. Input Prices. Prices of the inputs to program administration (labor, computer services, office space) are often quite different in different cities across the nation. There was no major variation between these prices in Green Bay and South Bend, however. Labor costs make up a significant portion of all HAO expenditures. HUD contracts required that studies be undertaken and periodically updated to ensure that HAO wage rates would be comparable with those in other local public agencies, and as it turned out, that process led to similar salary structures in both sites. In year five,

for example, the average staff salaries were \$13,580 and \$13,625 in Brown County and St. Joseph County, respectively.

2. Staff Quality. One would expect a difference in performance between two agencies if one were able to attract a uniformly high-quality staff and the other paid little attention to candidate's skills, experience and intelligence in its recruitment process. The two HAOs set similar standards for recruitment and enforced them rigorously. Over 95 percent of the employees in both HAOs were recruited from local labor markets and, as noted, salaries were not set high enough to give the HAOs any particular advantage in those markets. Nonetheless, we believe that the HAOs secured higher-quality personnel than could be expected in a typical local public agency, partly because they recruited carefully and partly because the excitement associated with a major social experiment attracted people who might not otherwise have sought employment with a local agency.

Staff performance may be influenced as much by what happens to job candidates after they are hired as it is by the skills they bring with them to the job. Bendick (1978) demonstrates that a well-planned and executed staff-training program can have an important effect on administration in an income-transfer program. Both HAOs placed great emphasis on training (see Kingsley, 1979, Sec. VIII). The HAO training program was designed initially by Rand; and though it was carried out somewhat differently in the two sites as the programs evolved, the approach remained consistent overall. Thus, staff training was another factor contributing to uniformity in HAO performance.

3. Management and Organization. Regardless of staff quality, incompetent management in the field can impede performance. In one way or another, HAO management was generally able to maintain an orderly workflow, a high level of staff motivation, fiscal integrity, and good relations with outside agencies, community leaders and the local press. It was of prime importance that in both sites, management accepted their charter as provided by Rand and HUD, and did not attempt to modify the program's basic objectives. A critical factor in this regard was the lack of an institutional heritage. If

allowance program administration had been grafted onto an existing institution, the incentive for managers might have been quite different; they might not have been as able or willing to focus on the allowance program charter as given.

Management consistency between sites was aided by the fact that the two HAOs had exactly the same organization charts, accounting systems, management-information systems, and data-processing systems.

4. Program Scale. Scale is the only one of these six factors in which the two Supply Experiment programs differed significantly; and as we have seen, that difference affected administrative cost. The contrast, however, was not as great as might be expected; even though the St. Joseph County program was much larger, its ratio of indirect to direct costs was only slightly lower than that for Brown County.

5. Participant Characteristics. Anecdotal evidence from other programs, and early evidence from the Supply Experiment (Fourth Annual Report, Sec. VI, 1978) suggest that some types of program participants generate more work for an assistance agency than others. More administrative activity may be required to achieve the same level of service. In the Supply Experiment sites, there were some differences in participant composition, but not enough so (at least not along critical dimensions) to greatly affect costs.

6. Administration Rules and Procedures. By and large, specified rules and procedures determine how much work an agency must do to perform each of its functions. One can hypothesize variations that could notably alter unit costs for all allowance program administrative functions, e.g., requiring eligibility recertifications only once each year rather than every six months. The fact that the two HAOs operated according to almost identical procedural specifications largely explains their similar performances.

ANALYZING THE EFFECTS OF PARTICIPANT CHARACTERISTICS

It would be a very difficult task to build a model that replicated the combined effects of all of these determinants, i.e., a model that could be used to predict administrative performance, given

various optional settings for each factor. Quantifying the way different input prices and program scales affect cost would be reasonably straightforward; but the effects of differing participant characteristics and rules and procedures are complicated, and there might be no satisfactory way to build in the effects of varying staff and management characteristics.

In the remainder of this report, we do not take on the assignment of building a full model, but we do analyze one of these determinants in a manner that could fit into a more complete framework. We chose a determinant that lends itself to quantitative analysis and whose effects are not generally well understood--participant characteristics.

The work does yield a model, albeit one that is limited--a representation of interactions that can be used to assess the cost effects of different program-recipient compositions assuming that input costs, scale, and staff and management characteristics and program rules and procedures are held constant. We do not think the specific parameters are generalizable to other programs, but we believe many conclusions drawn from the use of the model are.

The basis for this model is the set of equations presented in Sec. II and used to analyze actual HAO costs in Secs. III and IV. In this framework, the effects of different participant characteristics can be noted in two ways in each function: through their influence on cost per unit of workload processed (some types of clients have more complicated enrollment interviews, and thus require more staff time per case); or on workload volumes (some types of clients require more interviews to yield one new recipient).

Ideally, equipped with a host of possible explanatory variables from participant records, we would use multivariate analysis to define an efficient estimating equation for each of the many types of unit costs and workloads identified in Sec. II. This approach, however, was far beyond the scope of this study. We chose a simpler method entailing the measurement (or approximation) of unit cost and workload factors for a single participant taxonomy. This taxonomy is defined by variables that have been shown to explain differing participant

behavior in previous Supply Experiment research: tenure and life-cycle stage (see, for example, McCarthy, 1976; Third Annual Report, 1977; and Fourth Annual Report, 1978).

We divide households in each of the two housing tenure groups (renter or homeowner) into two subgroups according to the age of the household head: elderly (62 years of age or older) and nonelderly (under 62). Among the elderly, we differentiate between households headed by a single person and households headed by married couples. We do the same within the nonelderly category, but further subdivide to separate households with children from those made up only of adults.

The full taxonomy is presented in the stub of Table 5.1. This table shows the total number of households in each site in each group, and among them, the number that are eligible to participate in the housing allowance program and the number actually receiving allowance payments (as of the end of year four in each site).

We are unable to estimate eligibility for nonelderly single person households without children. If we exclude that group from all accounts, we find that 20 percent of Brown County resident households (26 percent of St. Joseph County households) were eligible to participate; 36 percent of the eligibles in Brown County (31 percent in St. Joseph County) were program recipients. Renters had higher overall participation rates (48 percent in Brown County and 39 percent in St. Joseph County) than homeowners (25 and 27 percent, respectively) but there was considerable variation within each tenure group. In all categories, eligible single-person households were much more likely to be recipients than couples, and the elderly were more likely to participate than the nonelderly. The highest participation rates on the table are for St. Joseph County renter singles with children (62 percent) and elderly single renters (76 percent).

Because of these differences in participation rates, groups that make up a comparatively small share of all households in the sites dominate the vector of allowance program recipients. Forty-two percent of all recipients (renters and owners combined) in Brown County (39 percent in St. Joseph County) are elderly singles, and

Table 5.1

TOTAL NUMBER OF HOUSEHOLDS, ELIGIBLES, AND RECIPIENTS,
BY TENURE AND LIFE-CYCLE STAGE

Tenure and Life-Cycle Stage	Households		Eligible as % of Total	Recipient as % of Eligible	% of Recipients	
	Total in County	Program Status				
		Eligible				Recipient
<i>Brown County</i>						
<u>Nonelderly Renters</u>						
Singles, no children	5,347	(a)	453	(a)	13.5	
Singles, with children	1,693	1,296	809	76.6	62.4	
Couples, no children	2,392	379	64	15.8	16.9	
Couples, with children	3,195	977	225	30.6	23.0	
All nonelderly renters	12,627	(a)	1,551	(a)	46.3	
<u>Elderly Renters</u>						
Singles	1,226	771	583	62.9	75.6	
Couples	489	266	89	54.4	33.5	
All elderly renters	1,715	1,037	672	60.5	64.8	
<u>All Renters</u>	14,342	(a)	2,223	(a)	66.4	
<u>Nonelderly Homeowners</u>						
Singles, no children	2,732	(a)	66	(a)	2.0	
Singles, with children	1,778	677	188	38.1	27.8	
Couples, no children	5,693	149	27	2.6	18.1	
Couples, with children	17,522	1,303	161	7.4	12.4	
All nonelderly owners	27,725	(a)	442	(a)	13.2	
<u>Elderly Homeowners</u>						
Singles	2,615	1,007	473	38.5	47.0	
Couples	3,390	1,087	209	32.1	19.2	
All elderly owners	6,005	2,094	682	34.9	32.6	
<u>All Homeowners</u>	33,730	(a)	1,124	(a)	33.6	
<u>All Households</u>	48,072	(a)	3,347	(a)	100.0	
<i>St. Joseph County</i>						
<u>Nonelderly Renters</u>						
Singles, no children	5,472	(a)	459	(a)	8.4	
Singles, with children	2,370	1,925	945	81.2	49.1	
Couples, no children	2,314	367	75	15.9	20.4	
Couples, with children	2,919	804	146	27.5	18.2	
All nonelderly renters	13,075	(a)	1,625	(a)	29.8	
<u>Elderly Renters</u>						
Singles	1,797	1,271	583	70.7	45.9	
Couples	747	277	68	37.1	24.6	
All elderly renters	2,544	1,548	651	60.9	42.1	
<u>All Renters</u>	15,619	(a)	2,276	(a)	41.7	
<u>Nonelderly Homeowners</u>						
Singles, no children	7,036	(a)	296	(a)	5.4	
Singles, with children	3,771	1,876	513	49.8	27.4	
Couples, no children	8,957	551	62	6.2	11.3	
Couples, with children	21,722	1,736	133	8.0	7.7	
All nonelderly owners	41,486	(a)	1,004	(a)	18.4	
<u>Elderly Homeowners</u>						
Singles	6,792	4,193	1,565	61.7	37.3	
Couples	7,989	2,399	616	30.0	25.7	
All elderly owners	14,781	6,592	2,181	44.6	33.1	
<u>All Homeowners</u>	56,267	(a)	3,185	(a)	58.3	
<u>All Households</u>	71,886	(a)	5,461	(a)	100.0	

SOURCE: Estimated by HASE staff for June 1978 in Brown County and December 1978 in St. Joseph County (see Carter and Balch, forthcoming).

^aData not available.

another 30 percent (27 percent in St. Joseph County) are singles with children. The aggregate recipient composition by life-cycle stage, in fact, looks very much the same in the two sites. The only significant difference between sites is in tenure. St. Joseph County has a much larger stock of low-cost dwellings available for ownership; thus a much larger proportion of its recipients (58 percent) are owners than in Brown County (33 percent).

PARTICIPANT CHARACTERISTICS AND WORKLOADS

To analyze the workloads generated by different types of participants, we use data from four-year HAO client research files (covering the period from the start of enrollment through June 1978 in Brown County and December 1978 in St. Joseph County, documented in Wang, 1982). Our analysis would be of little value if we found that patterns of workload generation among the participant groups we have defined differed substantially in the two sites. Fortunately, quite the reverse is true. As defined by tenure and life-cycle stage, participant behavior in Brown County and St. Joseph County is, on the whole, remarkably consistent.

Intake Workloads

The three major workload measures in the enrollment process are: number of applications received; number of interviews conducted; and number of enrollment cases processed. We noted earlier that enrollment workloads per new recipient are generally higher in St. Joseph County than in Brown County; i.e., a smaller percentage of St. Joseph County applicants are interviewed and enrolled. Table 5.2 shows the relevant rates for tenure/life-cycle-stage groups in both sites. It is clear that St. Joseph County's higher attrition is not explained by one or two groups that bring down the overall average. In most groups there, conversion rates from one stage to the next are proportionately lower than those of their Brown County counterparts.

Yet, given this overall difference between the sites, the pattern among groups in the two sites is still similar. Having submitted an application, from 72 to 76 percent of the elderly attend an enrollment

Table 5.2

ENROLLMENT-PROCESS ATTRITION, BY TENURE
AND LIFE-CYCLE STAGE

Tenure and Life-Cycle Stage	Brown County			St. Joseph County		
	No. of Applicants	Interviews as % Applicants	Enrollees as % Interviews	No. of Applicants	Interviews as % Applicants	Enrollees as % Interviews
<u>Nonelderly Renters</u>						
Singles, no children	(a)	57.9	77.5	(a)	75.6	72.3
Singles, with children	(a)	75.2	85.9	(a)	66.3	81.2
Couples, no children	(a)	66.7	77.4	(a)	58.5	59.3
Couples, with children	(a)	66.7	77.4	(a)	58.5	59.3
All nonelderly Renters	7,366	68.0	80.7	12,923	62.4	73.0
<u>Elderly Renters</u>						
Singles	(a)	73.3	85.9	(a)	71.4	78.7
Couples	(a)	77.7	85.5	(a)	74.0	78.5
All elderly renters	1,617	74.6	85.8	1,818	72.2	78.7
<u>All Renters</u>	8,983	69.2	81.7	14,741	63.6	73.8
<u>Nonelderly Homeowners</u>						
Singles, no children	(a)	74.3	72.1	(a)	49.1	14.9
Singles, with children	(a)	76.5	80.7	(a)	77.1	98.8
Couples, no children	(a)	71.2	60.6	(a)	69.9	55.5
Couples, with children	(a)	71.2	60.6	(a)	69.9	55.5
All nonelderly owners	3,223	72.6	67.2	7,222	67.0	62.2
<u>Elderly Homeowners</u>						
Singles	(a)	78.2	80.3	(a)	73.2	79.8
Couples	(a)	71.2	46.6	(a)	77.5	61.0
All elderly owners	2,096	75.8	69.5	5,910	75.4	70.0
<u>All Homeowners</u>	5,319	73.8	68.1	13,132	70.8	65.9
<u>All Households</u>	14,302	70.9	76.5	27,873	67.0	69.9

SOURCE: Rand analysis of HAO client records through June 1978 in Brown County and December 1978 in St. Joseph County.

NOTES: Attrition ratios for major tenure-age categories (e.g., all nonelderly renters) were calculated directly from data in HAO applicant and enrollment files. Applicant records, however, are not coded by life-cycle stage group within those categories. For those groups, "interviews as a percent of applicants" was estimated by applying proportionate differences in "enrollees as a percent of interviews" to the calculated averages for major tenure-age categories.

^aNot available (see explanation above).

interview. Overall, the nonelderly are more likely to drop out before the interview, but there are contrasts between subgroups. Nonelderly owners are interviewed more frequently than nonelderly renters in general; within each tenure group, singles with children attend much more frequently than couples or singles without children.

The pattern is different for the percent of all interviews that lead to an enrollment determination. Whereas renter applicants are more likely to drop out before the interview than owners, they are less likely to be screened out by the interview. Homeowner couples in both sites (elderly and nonelderly) have the highest probability of being found ineligible at the interview, presumably because they have more complicated family composition, income, and asset circumstances than other groups and are thus less able to assess their own eligibility beforehand. In both sites and both tenure groups, singles with children and elderly singles are most likely to be enrolled once interviewed.

The pattern for the conversion from enrollee to recipient status (by meeting program housing requirements) is more like that for the conversion from applicant to interviewee (Table 5.3). The elderly (both sites, both tenure groups) have quite high conversion rates (ranging from 80 to 92 percent). Nonelderly homeowners convert less reliably, though not much less. It is the nonelderly-renter category (particularly in St. Joseph County) that drops the average.

It is also of interest to note differences in the way different groups meet program housing requirements. The elderly (again in both sites and both tenure groups) are much more likely to live in acceptable housing to begin with (from 47 to 61 percent of all enrollees). When their unit fails the HAO evaluation, the homeowners among them most often make the required repairs; the renters do so less frequently. Among the nonelderly, homeowners are also most likely to repair. Although owners in all categories almost never move, a significant proportion of all renters (about 10 percent in both sites) qualify for payments by moving to a different housing unit that meets HAO standards.

Table 5.3

PERCENT OF ENROLLEES AUTHORIZED FOR PAYMENT,
BY TENURE AND LIFE-CYCLE STAGE

Tenure and Life-Cycle Stage	No. of En-rollees	Percent of Enrollees					Never Auth. for Payment
		Authorized for Payment					
		Total	No Repair Required	Unit Repaired	Moved to New Unit		
<i>Brown County</i>							
Nonelderly Renters							
Singles, no children	820	84.4	48.9	24.1	10.4	16.6	
Singles, with children	1,676	84.7	43.7	26.1	13.8	16.3	
Couples, no children	382	77.7	44.0	25.7	8.1	22.3	
Couples, with children	<u>1,115</u>	<u>72.6</u>	<u>28.8</u>	<u>31.5</u>	<u>12.4</u>	<u>27.4</u>	
All nonelderly renters	3,993	80.0	40.6	27.2	12.2	20.0	
Elderly Renters							
Singles	813	85.5	61.1	9.2	5.2	14.5	
Couples	146	84.9	56.8	24.7	3.4	15.1	
All elderly renters	959	85.4	60.5	20.0	4.9	14.6	
All Renters	4,963	81.0	44.4	25.8	10.7	19.0	
Nonelderly Homeowners							
Singles, no children	128	83.8	49.2	32.0	1.6	17.2	
Singles, with children	503	87.7	44.5	41.2	2.0	12.3	
Couples, no children	116	87.9	50.9	37.1	0.0	12.1	
Couples, with children	795	79.5	39.9	39.1	0.5	20.5	
All nonelderly owners	1,542	83.1	43.0	39.0	1.0	16.9	
Elderly Homeowners							
Singles	685	88.9	54.5	34.2	0.3	11.1	
Couples	373	88.5	54.2	34.0	0.3	11.5	
All elderly owners	1,058	88.8	54.3	34.1	0.3	11.2	
All Homeowners	2,609	85.4	47.6	37.0	0.7	14.6	
All Households	7,572	82.5	45.5	29.7	7.2	17.5	
<i>St. Joseph County</i>							
Nonelderly Renters							
Singles, no children	1,056	73.9	36.5	27.3	10.1	26.1	
Singles, with children	3,139	66.4	19.6	33.9	12.9	33.6	
Couples, no children	376	69.4	34.0	27.1	8.2	30.6	
Couples, with children	<u>1,150</u>	<u>57.8</u>	<u>23.0</u>	<u>26.3</u>	<u>8.4</u>	<u>42.2</u>	
All nonelderly renters	5,721	66.3	24.4	30.7	11.2	33.7	
Elderly Renters							
Singles	829	80.2	46.8	27.8	5.6	19.8	
Couples	126	84.1	49.3	30.2	4.6	15.9	
All elderly renters	955	83.6	49.0	29.8	4.7	16.4	
All Renters	6,691	68.8	27.9	30.6	10.3	31.2	
Nonelderly Homeowners							
Singles, no children	502	87.6	48.0	39.4	0.2	12.4	
Singles, with children	1,206	80.3	39.7	39.7	0.8	19.7	
Couples, no children	231	84.4	47.6	36.8	0.0	15.6	
Couples, with children	912	72.1	38.6	33.2	0.3	27.9	
All nonelderly owners	2,851	79.3	41.5	37.4	0.1	20.7	
Elderly Homeowners							
Singles	2,060	91.5	51.6	39.4	0.5	8.5	
Couples	940	91.8	55.4	36.4	0.0	8.2	
All elderly owners	3,000	91.6	52.8	38.4	0.0	8.4	
All Homeowners	5,922	85.4	47.0	38.0	0.4	14.6	
All Households	12,613	76.6	36.9	34.1	5.6	23.4	

SOURCE: Rand analysis of HAO client records through June 1978 in Brown County and December 1978 in St. Joseph County.

As would be expected from this discussion, groups differ in the HAO housing evaluation workloads they generate (Table 5.4), although because of counterbalancing factors the variation is not as great as we have seen for other workloads discussed above. Groups that tend to repair more frequently have more deficiency reevaluations, and groups that tend to move more frequently have more pre-move and post-move evaluations. But on the whole, most groups generate workload requirements reasonably close to the average--1.4 evaluations per enrollee in both sites.

It is of special interest to note that in both sites, with one exception, the groups that request more evaluations than the average are nonelderly households with children (singles and couples). These households either have to (because of discrimination) or choose to look at more housing units when searching for a new dwelling; i.e., they generate more requests per enrollee for pre-move and post-move evaluations.

Attrition Rates and Maintenance Workloads

As explained in Sec. II, the rate of recipient attrition is the primary determinant of regular maintenance workload ratios. Program rules require one semiannual recertification, one annual recertification and one annual housing reevaluation for each continuing recipient; but because of the way attrition works, we have seen that more than one semiannual recertification and less than one annual recertification and reevaluation will be performed per recipient-year.

Given an understanding of these mechanics, if attrition rates vary among participant groups, we would also expect workload ratios to vary among groups. If a group has a higher attrition rate than the average, it should require more semiannuals and fewer annual recertifications and reevaluations than the average. After logging in some recipient-months at the beginning of the year, a high-attrition cohort does not require as many annual recertifications and reevaluations because a smaller portion of its original members are still in the program when those events fall due in the latter part of

Table 5.4

INTAKE HOUSING EVALUATIONS PER ENROLLEE,
BY TENURE AND LIFE-CYCLE STAGE

Tenure and Life-Cycle Stage	No. of Enrollees	Intake Evaluations Per Enrollee by Type				Total
		Initial	Deficiency Reeval.	Pre-move or Post-move	Other	
<i>Brown County</i>						
<u>Nonelderly Renters</u>						
Singles, no children	871	.88	.26	.19	.03	1.36
Singles, with children	1,738	.92	.30	.23	.02	1.48
Couples, no children	389	.90	.28	.17	.02	1.36
Couples, with children	1,136	.90	.36	.25	.02	1.54
All nonelderly renters	4,134	.90	.31	.22	.02	1.46
<u>Elderly Renters</u>						
Singles	830	.94	.20	.09	.05	1.27
Couples	151	.98	.26	.11	.04	1.40
All elderly renters	981	.95	.21	.09	.05	1.29
<u>All Renters</u>	5,115	.91	.29	.20	.03	1.43
<u>Nonelderly Homeowners</u>						
Singles, no children	129	.95	.33	.02	.03	1.33
Singles, with children	512	.97	.43	.04	.03	1.46
Couples, no children	118	.97	.36	.00	.02	1.36
Couples, with children	809	.98	.41	.02	.01	1.42
All nonelderly owners	1,568	.97	.40	.02	.02	1.42
<u>Elderly Homeowners</u>						
Singles	695	.98	.35	.00	.02	1.36
Couples	379	.98	.34	.01	.04	1.36
All elderly owners	1,074	.98	.35	.00	.03	1.36
<u>All Homeowners</u>	2,642	.98	.38	.02	.02	1.40
<u>All Households</u>	7,757	.93	.32	.13	.03	1.42
<i>St. Joseph County</i>						
<u>Nonelderly Renters</u>						
Singles, no children	1,121	.73	.30	.18	.02	1.23
Singles, with children	3,348	.68	.45	.39	.03	1.56
Couples, no children	387	.75	.33	.23	.01	1.31
Couples, with children	1,202	.77	.33	.27	.02	1.40
All nonelderly renters	6,058	.71	.39	.32	.03	1.45
<u>Elderly Renters</u>						
Singles	871	.90	.32	.07	.07	1.37
Couples	130	.91	.32	.08	.08	1.38
All elderly renters	1,001	.90	.32	.07	.07	1.37
<u>All Renters</u>	7,059	.74	.38	.28	.03	1.44
<u>Nonelderly Homeowners</u>						
Singles, no children	523	.94	.39	.02	.06	1.41
Singles, with children	1,261	.93	.42	.03	.05	1.43
Couples, no children	234	.95	.38	.00	.04	1.37
Couples, with children	935	.93	.37	.01	.04	1.35
All nonelderly owners	2,953	.94	.39	.02	.05	1.39
<u>Elderly Homeowners</u>						
Singles	2,112	.97	.41	.01	.07	1.45
Couples	964	.96	.37	.00	.06	1.40
All elderly owners	3,076	.97	.40	.00	.07	1.43
<u>All Homeowners</u>	6,029	.95	.40	.01	.06	1.41
<u>All Households</u>	13,088	.84	.39	.16	.04	1.43

SOURCE: Rand analysis of HAO client records through June 1978 in Brown County and December 1978 in St. Joseph County.

the year. The cohort should require more than the average number of semiannuals per recipient-year because the ratio's denominator is diminished more than the average by the dropouts occurring after the semiannual has been initiated in the early part of the year.

To study variations in attrition rates by tenure and life-cycle stage, we relied on the HAO data files for the first four years of program operation, as we have in other parts of this section. For this purpose, however, all participant records in those files were not usable. Households authorized for payment in year one cannot be treated the same as households that entered the program near the end of year four; the former have had a much greater opportunity for attrition than the latter. To overcome this problem, we drew records only for recipients in both sites whose initial payment authorization date was at least two years before the end of year four; a total of 3,777 households in Brown County and 5,110 in St. Joseph County. We then examined the timing of terminations in each participant category over the first two years after the participants became recipients, plotting the data to show the number continuing in recipient status after one, two, three, etc., months after their initial payment authorization.

The resulting attrition curves exhibited substantial variation between groups, and again, the general pattern in the two sites was similar. The greatest contrast was between the elderly (who stay in the program much longer than the average) and the nonelderly (who are terminated at a more rapid rate). Within each of these groups, renters had a somewhat higher attrition rate than homeowners. Among the nonelderly (renters and homeowners), couples drop out more rapidly than singles. Figure 5.1 shows the curves for two contrasting subgroups, illustrating clearly that tenure and life-cycles stage, rather than location, appear to be key determinants of attrition.

Summary measures of attrition for each subgroup are presented in Table 5.5. For some, median durations of reciprocity can be observed directly. For example, half of all renter couples with children had been terminated in the first 14.4 months of reciprocity in Brown County; 12.6 months in St. Joseph County. For many groups, however,

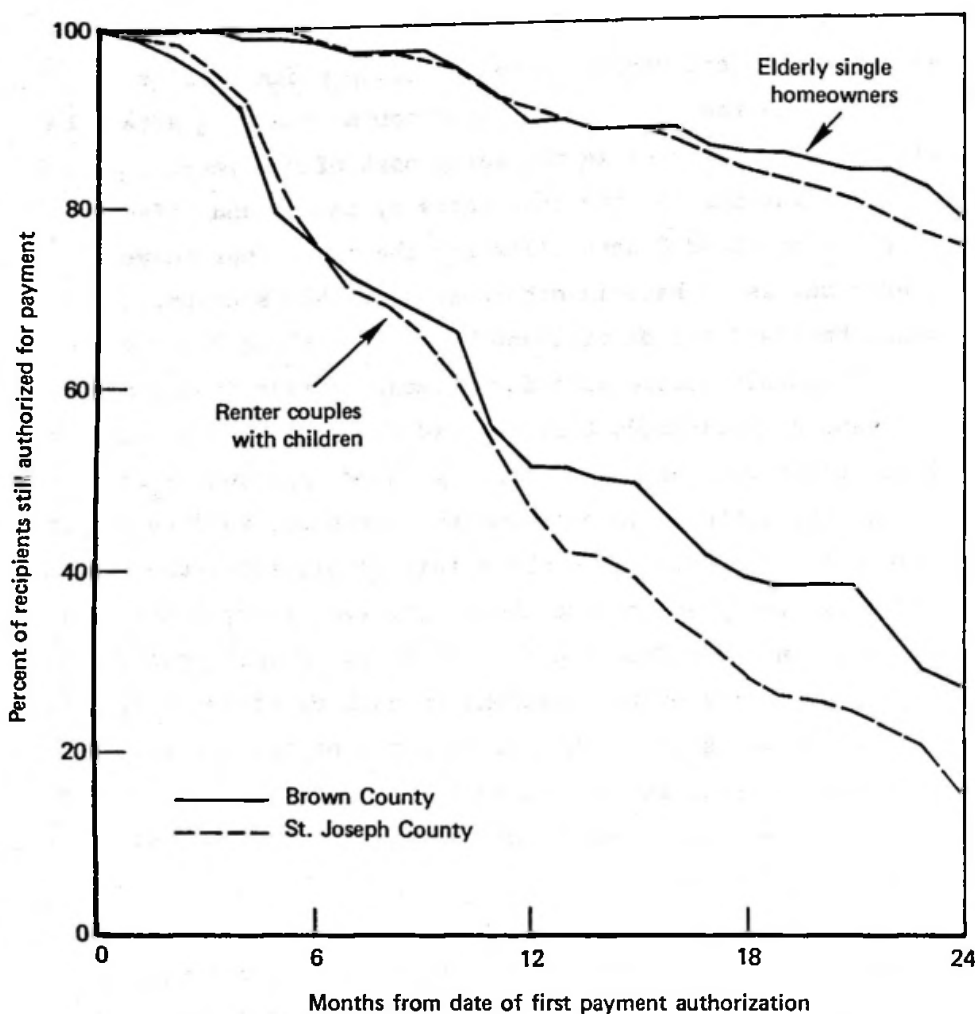


Fig. 5.1 — Recipient attrition: Elderly single homeowners and renter couples with children

the medians clearly fall beyond the two-year period for which we have observations. Attrition in later periods must be estimated based on the shape and placement of the curve over the first two years.

Graphs suggested that simple logarithmic functions (implying constant attrition rates) would fit the data well:

$$N_t = N_0 e^{-bt}$$

Table 5.5
 RECIPIENT ATTRITION RATES AND DURATION OF RECIPIENCY,
 BY TENURE AND LIFE-CYCLE STAGE

Tenure and Life-Cycle Stage	Sample Size	Estimated Attrition Rate (% decline per month)	Duration of Reciprocity (Months)		R ²
			Actual Median	Estimated Mean	
<i>Brown County</i>					
<u>Nonelderly Renters</u>					
Singles, no children	249	2.84	(a)	35.21	.97
Singles, with children	741	2.83	(a)	35.33	.99
Couples, no children	183	6.68	9.6	14.97	.97
Couples, with children	517	5.39	14.4	18.55	.99
<u>Elderly Renters</u>					
Singles	445	2.09	(a)	47.85	.99
Couples	86	1.71	(a)	58.48	.97
<u>Nonelderly Homeowners</u>					
Singles, no children	59	1.35	(a)	74.07	.98
Singles, with children	255	3.46	22.8	28.90	.99
Couples, no children	76	3.72	22.7	26.88	.97
Couples, with children	481	5.45	11.8	18.35	.98
<u>Elderly Homeowners</u>					
Singles	445	1.08	(a)	92.59	.95
Couples	229	1.77	(a)	56.50	.95
<i>St. Joseph County</i>					
<u>Nonelderly Renters</u>					
Singles, no children	174	3.28	(a)	30.49	.99
Singles, with children	1,171	3.84	20.2	26.04	.98
Couples, no children	123	7.95	11.6	12.58	.98
Couples, with children	382	7.87	12.0	12.71	.98
<u>Elderly Renters</u>					
Singles	344	1.72	(a)	58.14	.98
Couples	48	1.46	(a)	68.49	.94
<u>Nonelderly Homeowners</u>					
Singles, no children	155	2.08	(a)	48.08	.96
Singles, with children	599	3.09	(a)	32.36	.99
Couples, no children	100	4.39	16.0	22.78	.98
Couples, with children	439	7.21	11.8	13.87	.99
<u>Elderly Homeowners</u>					
Singles	1,103	1.14	(a)	87.72	.98
Couples	426	1.36	(a)	73.52	.98

SOURCE: Rand staff analysis of HAO client records through June 1978 in Brown County and December 1978 in St. Joseph County.

NOTE: Sample included all recipients whose initial date of payment authorization was at least two years prior to June 1978 in Brown County and December 1978 in St. Joseph County.

^aLonger than 24 months; thus could not be observed with available records.

where N_0 = number of households authorized for payment at month 0.
 N_t = actual number of households still reviewing payments
at month t .
 t = number of months since initial payment authorization.
 b = estimated attrition rate.

In the regressions, we used every sixth monthly data point to eliminate the effect of intervening irregularities in the curve caused by the timing of recertifications.¹ All coefficients were significant at the .01 level; .94 was the lowest R^2 . Table 5.5 shows the estimated monthly attrition rates for each group as well as the estimated mean durations of reciprocity (calculated as $1/b$).

As would be expected given this form, mean reciprocity durations considerably exceed the medians.

Elderly single homeowners have by far the lowest attrition rates; 1.1 percent per month in both sites. Their average duration of reciprocity is 93 months in Brown County and 88 months in St. Joseph County. Renter couples without children experience the most rapid attrition from the program. A cohort of these recipients declines by 6.7 percent per month in Brown County (mean duration of reciprocity is 15 months) and 8.0 percent per month in St. Joseph County (mean duration of reciprocity is 13 months).

Maintenance Workloads

Eligibility recertification workloads per recipient-year for the different participant groups in our taxonomy are displayed in Table 5.6. The pattern is as expected. More semiannuals and fewer annual recertifications and reevaluations are initiated for groups with short durations of reciprocity (for example, nonelderly renter couples in both sites). The reverse is true for groups with more gradual attrition (for example, elderly single homeowners).

The number of special recertifications performed is not determined directly by the attrition curve, but it is driven by the same underlying

¹ Substantially more recipients terminate at the time of a regular recertification than terminate between recertifications.

Table 5.6

ELIGIBILITY RECERTIFICATION WORKLOADS,
BY TENURE AND LIFE-CYCLE STAGE

Tenure and Life-Cycle Stage	Semiannual Recertification		Annual Recertification			Special Recert. Processed
	Initiated	Processed	Initiated	Interview	Processed	
<i>Brown County</i>						
<u>Nonelderly Renters</u>						
Singles, no children	1.24	1.14	1.00	.90	.87	.15
Singles, with children	1.28	1.16	1.05	.94	.90	.13
Couples, no children	1.54	1.03	.90	.76	.64	.34
Couples, with children	<u>1.40</u>	<u>1.08</u>	<u>.99</u>	<u>.84</u>	<u>.72</u>	<u>.27</u>
All nonelderly renters	1.32	1.12	1.01	.89	.82	.18
<u>Elderly Renters</u>						
Singles	1.09	1.06	.96	.93	.92	.01
Couples	<u>1.10</u>	<u>1.07</u>	<u>1.00</u>	<u>.93</u>	<u>.89</u>	<u>.16</u>
All elderly renters	1.09	1.06	.97	.93	.92	.03
<u>All Renters</u>	1.26	1.10	1.00	.90	.85	.16
<u>Nonelderly Homeowners</u>						
Singles, no children	1.08	1.03	1.02	.98	.91	.19
Singles, with children	1.22	1.05	.99	.88	.81	.15
Couples, no children	1.20	.94	.93	.82	.70	.22
Couples, with children	<u>1.32</u>	<u>.95</u>	<u>.90</u>	<u>.72</u>	<u>.59</u>	<u>.22</u>
All nonelderly owners	1.26	1.00	.95	.81	.71	.19
<u>Elderly Homeowners</u>						
Singles	1.04	1.03	.99	.98	.94	.01
Couples	<u>1.07</u>	<u>1.02</u>	<u>.99</u>	<u>.96</u>	<u>.87</u>	<u>.06</u>
All elderly owners	1.05	1.02	.99	.97	.91	.03
<u>All Homeowners</u>	1.15	1.00	.96	.88	.80	.12
<u>All Households</u>	1.21	1.06	.98	.89	.83	.15
<i>St. Joseph County</i>						
<u>Nonelderly Renters</u>						
Singles, no children	1.34	1.15	.97	.80	.77	.18
Singles, with children	1.41	1.25	1.12	.94	.92	.21
Couples, no children	1.48	1.14	.93	.68	.62	.27
Couples, with children	<u>1.53</u>	<u>1.17</u>	<u>.95</u>	<u>.68</u>	<u>.60</u>	<u>.39</u>
All nonelderly renters	1.42	1.21	1.05	.85	.82	.23
<u>Elderly Renters</u>						
Singles	1.11	1.08	.99	.95	.93	.02
Couples	<u>1.10</u>	<u>1.05</u>	<u>.97</u>	<u>.97</u>	<u>.97</u>	<u>.13</u>
All elderly renters	1.11	1.08	.99	.95	.93	.03
<u>All Renters</u>	1.36	1.18	1.04	.88	.85	.21
<u>Nonelderly Homeowners</u>						
Singles, no children	1.16	1.03	.98	.92	.84	.14
Singles, with children	1.21	1.08	.96	.84	.77	.15
Couples, no children	1.24	.96	.90	.78	.63	.16
Couples, with children	<u>1.36</u>	<u>.98</u>	<u>.85</u>	<u>.67</u>	<u>.53</u>	<u>.28</u>
All nonelderly owners	1.24	1.03	.92	.80	.70	.18
<u>Elderly Homeowners</u>						
Singles	1.06	1.03	.98	.94	.93	.02
Couples	<u>1.08</u>	<u>1.04</u>	<u>.98</u>	<u>.92</u>	<u>.89</u>	<u>.06</u>
All elderly owners	1.07	1.03	.98	.93	.92	.03
<u>All Homeowners</u>	1.14	1.04	.96	.89	.84	.10
<u>All Households</u>	1.23	1.10	.99	.88	.84	.15

SOURCE: Rand analysis of HAO client records through June 1978 in Brown County and December 1978 in St. Joseph County.

factor--the comparative volatility of household circumstances. Remember that the HAOs do specials only when a household has had a major change in circumstance (e.g., a job loss), or when the HAO has reason to believe one is imminent. Therefore, participant groups that experience such changes more frequently have more special recertifications, and these tend to be the same groups that have high attrition rates. Renter couples in both sites require 27 or more special recertifications per 100 recipient-years. Elderly single homeowners require no more than two.

The factors that determine the pattern for verification workloads are more complex. Table 5.7 provides data on verifications completed per certification or recertification case processed (intake as well as maintenance cases are included for the first four years in both sites). Following the sampling rules given in Sec. II, data provided by participants in 55 percent of all enrollment cases and 61 percent of all annual and special recertifications had to be verified with third parties in Brown County. The rate for semiannual recertifications is lower (15 percent) because of a difference in the rules for those cases, not because of any differences in participant behavior.

In almost all cases, the rates are lower in St. Joseph County, because the HAO there changed its method of applying the verification policy at the beginning of year two. Instead of processing a certification case with whatever documentation the participant brought to the interview (as was done in Brown County throughout), the St. Joseph County staff told participants who had not brought sufficient documentation that their case could be held in a pending file if they would agree to bring in the missing documents at a later time. The intended result was the reduction of verification workloads; and that purpose was achieved, since the criterion for selecting a case for verification was the amount of documentation provided. The St. Joseph County HAO had to verify only 43 percent of its enrollments and 33 percent of its annual recertifications over its first four years. The tradeoff was the increased work entailed by maintaining pending files.

Table 5.7

VERIFICATIONS PER CERTIFICATION/RECERTIFICATION CASE PROCESSED, BY TENURE AND LIFE-CYCLE STAGE

Tenure and Life-Cycle Stage	Enrollment	Recertification		
		Semi- ^a Annual	Annual	Special ^a
<i>Brown County</i>				
<u>Nonelderly Renters:</u>				
Singles, no children	.60	.16	.73	.47
Singles, with children	.44	.17	.44	.62
Couples, no children	.51	.19	.57	.60
Couples, with children	.47	.19	.47	.61
All nonelderly renters	.49	.18	.50	.60
<u>Elderly Renters</u>				
Singles	.78	.11	.81	.67
Couples	.77	.12	.80	.76
All elderly renters	.78	.11	.81	.71
<u>All Renters</u>	.54	.15	.59	.61
<u>Nonelderly Homeowners</u>				
Singles, no children	.53	(a)	.75	(a)
Singles, with children	.46	(a)	.47	(a)
Couples, no children	.48	(a)	.60	(a)
Couples, with children	.43	(a)	.39	(a)
All nonelderly owners	.45	(a)	.47	(a)
<u>Elderly Homeowners</u>				
Singles	.78	(a)	.80	(a)
Couples	.76	(a)	.76	(a)
All elderly owners	.77	(a)	.78	(a)
<u>All Homeowners</u>	.58	(a)	.65	(a)
<u>All Households</u>	.55	(a)	.61	(a)
<i>St. Joseph County</i>				
<u>Nonelderly Renters</u>				
Singles, no children	.57	.15	.49	.56
Singles, with children	.42	.17	.24	.58
Couples, no children	.45	.16	.35	.57
Couples, with children	.40	.19	.27	.59
All nonelderly renters	.45	.17	.28	.58
<u>Elderly Renters</u>				
Singles	.53	.11	.45	.50
Couples	.55	.12	.48	.53
All elderly renters	.53	.11	.46	.52
<u>All Renters</u>	.46	.14	.33	.57
<u>Nonelderly Homeowners</u>				
Singles, no children	.41	(a)	.35	(a)
Singles, with children	.35	(a)	.23	(a)
Couples, no children	.40	(a)	.35	(a)
Couples, with children	.33	(a)	.22	(a)
All nonelderly owners	.36	(a)	.26	(a)
<u>Elderly Homeowners</u>				
Singles	.43	(a)	.34	(a)
Couples	.46	(a)	.39	(a)
All elderly owners	.44	(a)	.36	(a)
<u>All Homeowners</u>	.40	(a)	.32	(a)
<u>All Households</u>	.43	(a)	.33	(a)

SOURCE: Rand analysis of HAO client records through June 1978 in Brown County and December 1978 in St. Joseph County.

^aRatios calculated by life-cycle only. Ratios in this column adjacent to renter categories are actually ratios for renters and homeowners together.

Although the overall rates differed, the patterns of verification frequencies by participant group in the two sites were much the same. The elderly had much higher verification rates than the nonelderly. Among the nonelderly, households without children had higher rates than those with children. Tenure had little effect. Rates for the elderly were high because so many relied on social security payments as their primary source of income; recipients of social security checks receive no documentation of their entitlement amounts, so almost all cases have to be verified with the disbursing agency. (For more complete discussion of the administrative implications of verification policies, see Tebbets, 1979, and Rizor, forthcoming).

Maintenance housing evaluation workloads are also somewhat complicated (Table 5.8). Annual reevaluations follow the anticipated pattern (see our earlier discussion of attrition curve impacts): groups with high attrition rates (e.g., renter couples) generate fewer evaluations per recipient-year. Pre- or post-move evaluations are more frequent for groups that move most often and search more intensively (i.e., renters, particularly nonelderly renters with children). The pattern for deficiency reevaluations is influenced primarily by failure-repair probabilities, and is similar to the pattern for evaluations of the same type in intake. All told, homeowners in both sites generate about one maintenance evaluation per recipient-year, whereas renters generate from 1.3 to 1.4. Single-person households with children have the highest rates (1.7 for renters in St. Joseph County) among all groups.

PARTICIPANT CHARACTERISTICS AND UNIT COSTS

Although we have data that bear directly on the effects of tenure and life-cycle on workload generation, we do not have direct measures of the effects of those variables on unit costs. It is, in fact, impossible to measure the cost of administering the program for a particular household or group of households in agencies like the HAOs (for a discussion of the problem involved, see Kingsley and Schlegel, 1979, Sec. III).

Table 5.8

MAINTENANCE HOUSING EVALUATION WORKLOADS,
BY TENURE AND LIFE-CYCLE STAGE

Tenure and Life-Cycle Stage	Maintenance Housing Evaluation Per Recipient-Year				Annual Reevaluations	
	Total	Pre- or Post-Move	Annual Reeval.	Deficiency Reeval.	Failed as % of All Eval.	Repaired as % of All Failed
<i>Brown County</i>						
<u>Nonelderly Renters</u>						
Singles, no children	1.03	.28	.66	.09	13.7	47.1
Singles, with children	1.31	.37	.68	.26	32.3	33.5
Couples, no children	1.04	.45	.44	.15	33.3	33.3
Couples, with children	<u>1.06</u>	<u>.27</u>	<u>.56</u>	<u>.23</u>	<u>40.9</u>	<u>26.8</u>
All nonelderly renters	1.16	.33	.62	.21	31.3	32.4
<u>Elderly Renters</u>						
Singles	.95	.12	.75	.08	12.0	43.9
Couples	<u>.90</u>	<u>.10</u>	<u>.72</u>	<u>.08</u>	<u>9.5</u>	<u>37.5</u>
All elderly renters	.95	.12	.75	.08	11.6	43.1
<u>All Renters</u>	1.12	.29	.65	.18	25.5	33.8
<u>Nonelderly Homeowners</u>						
Singles, no children	.91	.09	.70	.12	13.8	50.0
Singles, with children	.94	.09	.65	.20	33.1	46.3
Couples, no children	.68	.03	.56	.09	16.3	37.5
Couples, with children	<u>.63</u>	<u>.04</u>	<u>.48</u>	<u>.11</u>	<u>32.1</u>	<u>35.4</u>
All nonelderly owners	.76	.05	.56	.15	29.4	41.1
<u>Elderly Homeowners</u>						
Singles	.93	.02	.78	.13	10.6	40.0
Couples	<u>.82</u>	<u>.03</u>	<u>.72</u>	<u>.07</u>	<u>9.9</u>	<u>48.0</u>
All elderly owners	.89	.02	.76	.11	10.4	42.5
<u>All Homeowners</u>	.84	.04	.66	.14	18.7	41.6
<u>All Households</u>	1.02	.21	.65	.16	22.7	36.4
<i>St. Joseph County</i>						
<u>Nonelderly Renters</u>						
Singles, no children	1.10	.32	.63	.15	31.6	41.0
Singles, with children	1.55	.34	.73	.48	59.3	30.4
Couples, no children	.84	.22	.49	.13	43.2	28.1
Couples, with children	<u>.91</u>	<u>.27</u>	<u>.45</u>	<u>.18</u>	<u>47.4</u>	<u>30.8</u>
All nonelderly renters	1.29	.32	.64	.33	52.8	31.3
<u>Elderly Renters</u>						
Singles	1.06	.09	.80	.17	17.2	47.0
Couples	<u>1.15</u>	<u>.13</u>	<u>.83</u>	<u>.19</u>	<u>24.3</u>	<u>58.8</u>
All elderly renters	1.07	.10	.80	.17	18.1	49.0
<u>All Renters</u>	1.27	.28	.68	.31	43.9	33.2
<u>Nonelderly Homeowners</u>						
Singles, no children	.94	.03	.74	.17	25.8	37.7
Singles, with children	.94	.05	.64	.25	51.5	29.5
Couples, no children	.73	.03	.57	.13	28.6	29.2
Couples, with children	<u>.58</u>	<u>.03</u>	<u>.43</u>	<u>.12</u>	<u>44.6</u>	<u>30.0</u>
All nonelderly owners	.82	.04	.60	.18	42.3	30.7
<u>Elderly Homeowners</u>						
Singles	1.04	.01	.82	.21	20.3	45.2
Couples	<u>.97</u>	<u>.01</u>	<u>.80</u>	<u>.16</u>	<u>16.3</u>	<u>43.8</u>
All elderly owners	1.02	.01	.82	.19	19.1	44.9
<u>All Homeowners</u>	.96	.03	.73	.20	26.6	37.6
<u>All Households</u>	1.09	.14	.71	.24	33.6	35.3

SOURCE: Rand analysis of HAO client records through June 1978 in Brown County and December 1978 in St. Joseph County.

The information needs of our model can be satisfied, however, in two ways: First, we are reasonably certain that participant characteristics have little or no effect on unit costs for many HAO functions; even though one group may require more cases to be processed than another, the cost per case is the same. In these instances, the average unit cost we have already calculated can be used for all groups. Second, for those functions where we would expect participant characteristics to influence unit costs, we can use reasonable proxy variables to estimate the effects.

Prototypical functions of the first type (those whose unit costs are not affected by differences in participant characteristics) are computer processing operations. The cost of these functions is related to the amount of staff and computer time it takes to process records with a relatively fixed number of entries. The fact that some records are for elderly owners and some are for nonelderly renters does not increase or decrease the work required.

Verification processing is generally similar. Once a case is initiated, the work required per case entails mailing information requests to third parties, reviewing their responses, and processing payment adjustments where appropriate. Participant characteristics have little influence on the nature of the work involved in a particular case.

Intake and maintenance housing evaluations also fall in this category. We might have expected that certain types of households live in certain types of housing units; and that given differences in unit characteristics, some evaluations would take longer to complete than others. Earlier research, however, showed that there is negligible variation in evaluation times for different types of participants (see discussion of Table 6.12 in Fourth Annual Report, 1978).

We also place outreach and enrollee and recipient services in this category. These functions (at least the way the HAOs performed them) are not "casework" operations. Thus, the characteristics of households do not clearly mandate a fixed activity as they do in other functions like certification interviews.

The only functions remaining in the second category (those whose unit costs are influenced by participant characteristics) are enrollment screening, enrollment interviews, enrollment data reviews, recertification interviewing and case processing, and recertification data reviews. We noted earlier that some participants have more complicated household circumstances than others. For complex cases, interviewers must spend more time asking questions; data review staff must spend more time reviewing the forms.

The average interview length for different types of households should be a good (though imperfect) indicator of the pattern of cost per case in each of these functions. The data (again for four years in both sites) are presented in Table 5.9. The pattern (for enrollment interviews) is more easily readable in Fig. 5.2.

Enrollment interviews average about one hour in both HAOs (57-58 minutes). Interview length does vary by tenure and life-cycle stage, and the pattern of variation is almost exactly the same in Brown County and St. Joseph County. Holding the other variables constant, interviews for couples take longer than those for singles; interviews for the elderly take longer than those for the nonelderly; and interviews for homeowners take longer than those for renters.

Both HAOs take less time in face-to-face contact with recipients in annual recertification interviews, but the pattern of variation among participant types is the same: couples take more time than singles, the elderly take more time than the nonelderly, and owners take more time than renters.

There is, however, a fairly significant difference in the HAO averages: 40 minutes for Brown County and 48 for St. Joseph County. There was a difference in approach that may explain the gap. The Brown County HAO made a special effort to reduce the length of the annual interview. Staff spent more time beforehand in preparing the form, and avoided steps during the interview that could be taken after the recipient had gone, e.g., double-checking calculations. Although these practices may have somewhat benefitted the client, they produced no net gain in efficiency because of the increased workload

Table 5.9

LENGTH OF ENROLLMENT AND ANNUAL RECERTIFICATION INTERVIEW, BY TENURE AND LIFE-CYCLE STAGE

Tenure and Life-Cycle Stage	Enrollment Interview			Annual Recertification Interview		
	No. of Interviews	Mean Length (Minutes)	Standard Deviation (Minutes)	No. of Interviews	Mean Length (Minutes)	Standard Deviation (Minutes)
<i>Brown County</i>						
<u>Nonelderly Renters</u>						
Singles, no children	871	49.52	16.08	543	33.59	10.66
Singles, with children	1,738	49.05	18.13	1,558	32.11	10.74
Couples, no children	389	54.29	18.25	167	35.12	11.11
Couples, with children	1,136	56.51	20.42	665	39.45	14.31
All nonelderly renters	4,134	51.69	18.69	2,933	34.38	12.11
<u>Elderly Renters</u>						
Singles	830	58.08	21.33	1,023	38.48	12.60
Couples	151	63.50	21.08	207	40.53	12.02
All elderly renters	981	58.94	21.37	1,230	38.80	12.53
<u>All Renters</u>	5,115	53.08	19.44	4,163	35.53	12.37
<u>Nonelderly Homeowners</u>						
Singles, no children	129	59.83	20.59	138	42.13	14.52
Singles, with children	512	61.90	22.48	472	42.37	14.00
Couples, no children	118	65.15	20.35	106	45.64	13.91
Couples, with children	809	71.25	30.84	474	57.24	27.59
All nonelderly owners	1,568	66.80	27.26	1,190	48.79	21.95
<u>Elderly Homeowners</u>						
Singles	695	61.27	21.11	1,133	42.36	13.36
Couples	379	67.87	23.48	562	45.20	15.80
All elderly owners	1,074	63.60	22.19	1,675	43.32	14.28
<u>All Homeowners</u>	2,642	65.50	25.36	2,865	45.81	18.39
<u>All Households</u>	7,757	57.32	22.45	7,028	39.56	15.82
<i>St. Joseph County</i>						
<u>Nonelderly Renters</u>						
Singles, no children	1,121	50.54	16.16	444	43.90	10.74
Singles, with children	3,348	51.43	14.80	2,139	41.87	10.42
Couples, no children	387	53.57	15.40	120	45.94	12.94
Couples, with children	1,202	55.21	15.88	342	45.18	12.32
All nonelderly renters	6,058	52.15	15.40	3,045	42.78	10.94
<u>Elderly Renters</u>						
Singles	871	58.99	18.76	891	50.31	13.51
Couples	130	63.96	18.72	135	51.81	14.40
All elderly renters	1,001	59.64	18.82	1,026	50.50	13.63
<u>All Renters</u>	7,059	53.22	16.14	4,071	44.57	12.06
<u>Nonelderly Homeowners</u>						
Singles, no children	523	62.14	23.70	402	50.12	10.79
Singles, with children	1,261	62.38	19.16	1,040	48.42	11.71
Couples, no children	234	65.62	24.09	153	52.17	13.25
Couples, with children	935	66.32	23.59	353	53.83	17.31
All nonelderly owners	2,953	63.84	21.94	1,948	50.20	13.16
<u>Elderly Homeowners</u>						
Singles	2,112	63.37	20.69	2,817	51.21	11.04
Couples	964	67.57	23.42	1,168	54.44	12.47
All elderly owners	3,076	64.69	21.67	3,985	52.19	11.58
<u>All Homeowners</u>	6,029	64.27	21.80	5,933	51.50	12.18
<u>All Households</u>	13,088	58.39	19.79	10,004	48.52	12.59

SOURCE: Rand analysis of HAO client records through June 1978 in Brown County and December 1978 in St. Joseph County.

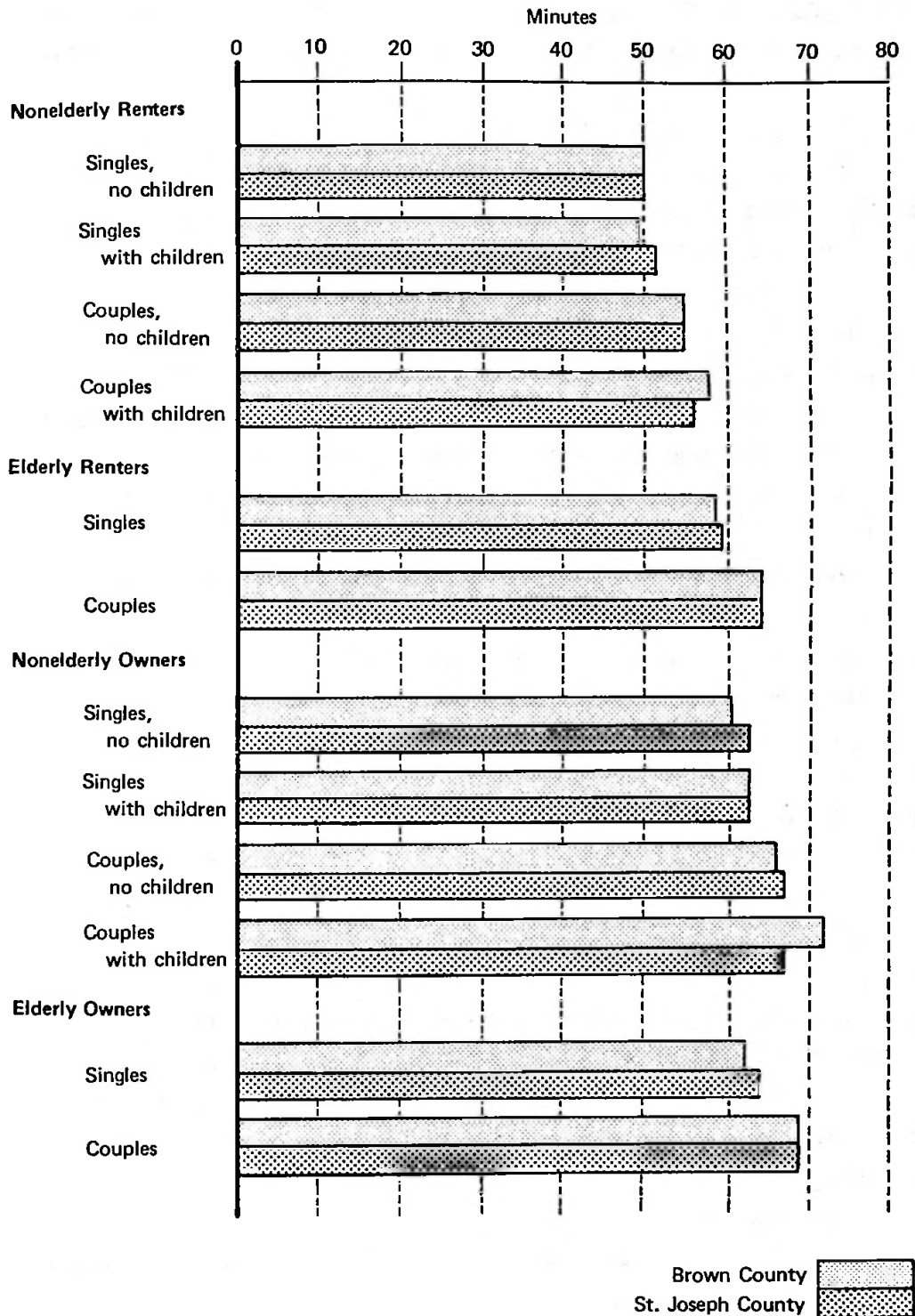


Fig. 5.2 — Average length of enrollment interview by life-cycle stage

for the staff after the interview. Direct processing costs for annual recertifications in the two HAOs were about the same (see Table 4.5).

ESTIMATING EFFECTS ON ADMINISTRATIVE COSTS

Our analysis has shown that participant characteristics do have a sizeable effect on administrative workloads and unit costs. Patterns of variation for particular functions are in all cases generally similar in the two sites: participant groups that cause one HAO to do the most work (process more cases or spend more time per case) also typically required the most effort by the other HAO.

The patterns are not uniform across functions, however. Singles with children, for example, required fewer enrollment interviews per enrollee than most groups but generated the highest number of housing evaluations per enrollee. The pattern for enrollment interview workloads is almost the reverse of that for annual recertification interviews; groups requiring more of the former per new recipient require fewer of the latter per recipient-year.

Given these differences, and the fact that some functions cost more than others, the analysis does not yet offer a clear sense of the results in the aggregate. Does it cost more in total to administer the program for some types of participants than others, or do function-by-function differences cancel out? If there are variations, what are their magnitudes?

To answer these questions, we applied our cost model (equations in Sec. II) to each group independently, multiplying group-specific workload requirements by associated unit costs for each function, and then summing to yield total group costs for intake and maintenance.

Because relationships in the two sites are so similar, our purposes do not require the application of the full model for both HAOs. We have chosen to do the calculations using Brown County data only, primarily because the nature of the work in a few Brown County functions was more clearly defined and consistent over time than that of their St. Joseph County counterparts.

Before the computations, however, the data presented earlier in this section must be adjusted. Those data cover participant

transactions for the first four program years, including experience when workload relationships were comparatively variable. Steady-state costs were calculated on the basis of the July 1977-June 1979 experience (years four and five in Brown County); as shown, workload requirements had stabilized, generally at lower levels, during that period.

The composition of intake and maintenance populations also changed during the experimental period (see Tables 5.10 and 5.11). In both sites, renters and nonelderly households increased as a proportion of all new recipients over the years. However, since elderly and homeowners households have longer durations of reciprocity, shifts in the distribution of current recipients did not change as noticeably. Probably the most significant change in the recipient population is the decline in the proportion made up by nonelderly couples in both tenure categories in both sites.

The key assumption in our adjustment of workload and cost ratios was that for each variable, proportionate relationships between groups remained constant even though absolute levels varied; e.g., if the average number of intake housing evaluations required for elderly single homeowners was 0.86 of the number required for nonelderly single renters with children during the first four years, it was still 0.86 in years four and five.

With this assumption and knowledge of the distribution of new recipients and recipient-years by tenure/life-cycle stage groups during years four and five, we can simply set the distribution so that the ratios for each group are consistent with the aggregate ratio calculated for years four and five in Sec. III. We apply a similar method to unit costs for those functions where unit costs vary with participant characteristics, using interview lengths as the proxy; that is, we assume the relationship between group mean interview lengths discovered in the data for year one through four is the same as the relationship between group unit costs in years four and five. (For functions where we expect no variation because of participant characteristics, we use the steady-state average unit cost as the unit cost for each group independently.)

Table 5.10

COMPOSITION OF INTAKE AND MAINTENANCE POPULATIONS, BY
TENURE AND LIFE-CYCLE STAGE: BROWN COUNTY

Tenure and Life-Cycle Stage	Year 1	Year 2	Year 3	Year 4	Year 5	July 1977- June 1979
<i>Intake Population (percent of new recipients)</i>						
<u>Nonelderly Renters</u>						
Singles, no children	5.0	7.9	8.7	27.3	33.2	30.3
Singles, with children	18.3	22.8	27.2	25.9	26.0	25.9
Couples, no children	4.1	5.0	5.2	4.4	4.0	4.2
Couples, with children	13.8	14.3	14.2	10.2	9.4	9.8
All nonelderly renters	41.2	50.0	55.3	67.8	72.6	70.2
<u>Elderly Renters</u>						
Singles	12.7	10.6	11.6	10.2	7.3	8.8
Couples	2.5	1.9	1.4	1.9	1.1	1.5
All elderly renters	15.2	12.5	13.0	12.1	8.4	10.3
<u>All Renters</u>	56.4	62.5	68.3	79.9	81.0	80.5
<u>Nonelderly Homeowners</u>						
Singles, no children	1.4	1.5	.8	2.8	2.3	2.6
Singles, with children	6.5	7.4	8.0	6.6	5.5	6.0
Couples, no children	1.5	1.9	1.4	.6	.6	.6
Couples, with children	13.9	11.3	6.9	5.3	5.0	5.1
All nonelderly owners	23.3	22.1	17.1	15.3	13.4	14.3
<u>Elderly Homeowners</u>						
Singles	13.5	9.6	9.1	3.2	4.1	3.6
Couples	6.8	5.8	5.5	1.6	1.5	1.6
All elderly owners	20.3	15.4	14.6	4.8	5.6	5.2
<u>All Homeowners</u>	43.6	37.5	31.7	20.1	19.0	19.5
<u>All Households</u>	100.0	100.0	100.0	100.0	100.0	100.0
<i>Maintenance Population (percent of recipient-years)</i>						
<u>Nonelderly Renters</u>						
Singles, no children	4.6	6.1	7.0	10.7	16.0	13.5
Singles, with children	16.9	20.8	22.8	24.6	24.9	24.7
Couples, no children	3.8	2.9	3.0	2.8	2.7	2.8
Couples, with children	12.9	12.3	11.0	9.2	7.7	8.4
All nonelderly renters	38.2	42.1	43.8	47.3	51.3	49.4
<u>Elderly Renters</u>						
Singles	13.8	13.0	12.7	13.6	14.1	13.9
Couples	3.2	2.5	2.6	2.6	2.6	2.6
All elderly renters	17.0	15.5	15.3	16.2	16.7	16.5
<u>All Renters</u>	55.2	57.6	59.1	63.5	68.0	65.9
<u>Nonelderly Homeowners</u>						
Singles, no children	1.3	1.4	1.4	1.9	2.2	2.1
Singles, with children	7.3	7.2	7.1	6.9	6.2	6.5
Couples, no children	1.8	1.4	1.4	1.2	.9	1.0
Couples, with children	13.0	11.3	8.8	5.6	4.1	4.8
All nonelderly owners	23.4	21.3	18.7	15.6	13.4	14.4
<u>Elderly Homeowners</u>						
Singles	14.1	14.2	14.7	14.0	12.4	13.2
Couples	7.3	6.9	7.5	6.9	6.2	6.5
All elderly owners	21.4	21.1	22.2	20.9	18.6	19.7
<u>All Homeowners</u>	44.8	42.4	40.9	36.5	32.0	34.1
<u>All Households</u>	100.0	100.0	100.0	100.0	100.0	100.0

SOURCE: Rand analysis of HAO client records through June 1979.
NOTE: Year 1 began in July 1974.

Table 5.11

COMPOSITION OF INTAKE AND MAINTENANCE POPULATIONS, BY
TENURE AND LIFE-CYCLE STAGE: ST. JOSEPH COUNTY

Tenure and Life-Cycle Stage	Year 1	Year 2	Year 3	Year 4	Year 5	July 1977- June 1979
<i>Intake Population (percent of new recipients)</i>						
<u>Nonelderly Renters</u>						
Singles, no children	2.7	4.1	8.5	20.1	22.4	18.5
Singles, with children	22.2	24.7	19.8	23.5	23.6	22.7
Couples, no children	2.3	2.7	2.6	3.4	2.5	2.9
Couples, with children	8.4	7.1	6.2	6.8	8.4	6.9
All nonelderly renters	35.6	38.6	37.1	53.8	56.9	51.0
<u>Elderly Renters</u>						
Singles	5.7	7.3	8.8	6.8	4.7	6.7
Couples	.9	1.0	1.2	1.1	.4	.8
All elderly renters	6.6	8.3	10.0	7.9	5.1	7.5
<u>All Renters</u>	42.2	46.9	47.1	61.7	62.0	58.5
<u>Nonelderly Homeowners</u>						
Singles, no children	3.4	2.8	5.9	6.6	5.1	7.5
Singles, with children	14.0	10.3	7.5	8.6	8.5	8.2
Couples, no children	2.2	1.8	2.1	1.8	2.1	2.1
Couples, with children	9.7	7.8	4.5	5.0	6.2	5.3
All nonelderly owners	29.3	22.7	20.0	22.0	21.9	23.1
<u>Elderly Homeowners</u>						
Singles	20.0	22.1	21.2	10.2	10.5	11.8
Couples	8.5	8.3	11.7	6.1	5.6	6.6
All elderly owners	28.5	30.4	32.9	16.3	16.1	18.4
<u>All Homeowners</u>	57.8	53.1	52.0	38.3	38.0	41.5
<u>All Households</u>	100.0	100.0	100.0	100.0	100.0	100.0
<i>Maintenance Population (percent of recipient-years)</i>						
<u>Nonelderly Renters</u>						
Singles, no children	5.5	3.7	4.5	8.1	10.5	7.8
Singles, with children	19.7	23.5	22.3	20.2	19.8	20.4
Couples, no children	1.9	2.3	1.7	1.5	1.5	1.6
Couples, with children	8.3	7.4	4.9	3.8	3.6	3.9
All nonelderly renters	35.4	36.9	33.4	33.6	35.4	33.7
<u>Elderly Renters</u>						
Singles	5.8	6.8	8.0	8.7	8.5	8.6
Couples	1.0	1.0	1.3	1.3	1.2	1.3
All elderly renters	6.8	7.8	9.3	10.0	9.7	9.9
<u>All Renters</u>	42.2	44.7	42.7	43.6	45.1	43.6
<u>Nonelderly Homeowners</u>						
Singles, no children	3.5	3.1	3.4	5.2	5.5	4.9
Singles, with children	14.6	12.2	10.5	9.2	8.7	9.3
Couples, no children	1.6	1.8	1.7	1.6	1.7	1.6
Couples, with children	9.3	7.7	4.6	3.4	3.1	3.5
All nonelderly owners	29.0	24.8	20.2	19.4	19.0	19.3
<u>Elderly Homeowners</u>						
Singles	20.8	21.9	25.8	25.4	24.1	25.4
Couples	8.0	8.6	11.3	11.6	11.8	11.7
All elderly owners	28.8	30.5	37.1	37.0	35.9	37.1
<u>All Homeowners</u>	57.8	55.3	57.3	56.4	54.9	56.4
<u>All Households</u>	100.0	100.0	100.0	100.0	100.0	100.0

SOURCE: Rand analysis of HAO client records through March 1980.
NOTE: Year 1 began in April 1975.

Effects on Intake Costs

The resulting intake function costs for each group in the Brown County based model are presented in Table 5.12. In the aggregate, it costs slightly more to administer intake for homeowners (\$172 per new recipient) than for renters (\$153), but there are more notable variations on the chart. Because they have higher attrition in enrollment interviews, and because their interviews take longer,

Table 5.12

MODEL TOTAL INTAKE COSTS PER NEW RECIPIENT,
BY TENURE AND LIFE-CYCLE STAGE

Tenure and Life-Cycle Stage	Outreach	Eligibility Certification			Housing Certification		Total Intake Cost Per New Recipient
		Screen. and Sched.	Interview, Program Info.	Error Control, Data Proc.	Housing Eval.	Enrollee Services	
<u>Nonelderly Renters</u>							
Singles, no children	6.02	25.99	39.95	26.02	53.92	2.39	154.29
Singles, with children	4.17	18.04	35.71	25.20	58.25	2.39	143.75
Couples, no children	5.63	24.48	47.58	28.38	53.90	2.60	162.50
Couples, with children	<u>6.00</u>	<u>26.00</u>	<u>51.86</u>	<u>30.42</u>	<u>60.46</u>	<u>2.77</u>	<u>177.51</u>
All nonelderly renters	5.31	22.98	40.51	26.47	56.44	2.45	154.16
<u>Elderly Renters</u>							
Singles	4.24	18.34	41.67	25.43	49.65	2.36	141.69
Couples	<u>4.02</u>	<u>17.35</u>	<u>45.89</u>	<u>28.96</u>	<u>55.32</u>	<u>2.39</u>	<u>153.93</u>
All elderly renters	4.21	18.21	42.27	28.06	50.46	2.37	145.58
<u>All Renters</u>	5.16	22.34	40.72	26.68	55.67	2.45	153.02
<u>Nonelderly Homeowners</u>							
Singles, no children	5.01	21.65	51.93	27.50	52.87	2.43	161.39
Singles, with children	4.15	18.02	45.07	26.42	57.75	2.30	153.71
Couples, no children	5.27	25.39	63.97	25.61	53.82	2.30	176.96
Couples, with children	<u>6.64</u>	<u>28.73</u>	<u>77.34</u>	<u>30.25</u>	<u>56.07</u>	<u>2.52</u>	<u>201.55</u>
All nonelderly owners	5.27	22.79	58.61	27.99	56.10	2.41	173.17
<u>Elderly Homeowners</u>							
Singles	4.09	17.70	44.12	27.41	53.95	2.28	149.55
Couples	<u>7.72</u>	<u>33.37</u>	<u>84.93</u>	<u>28.34</u>	<u>53.90</u>	<u>2.28</u>	<u>210.54</u>
All elderly owners	5.20	22.51	56.68	27.71	53.92	2.28	168.30
<u>All Homeowners</u>	5.25	22.75	58.09	27.93	55.54	2.36	171.92
<u>All Households</u>	5.18	22.43	44.12	26.92	55.64	2.43	156.72

SOURCE: Estimated by Rand staff based on Brown County HAO client records, accounting records, and Management Information Reports (see accompanying text).

couples imply higher costs than singles in all categories. The highest cost (\$211, for elderly couples who own their own homes) is 49 percent greater than the \$142 cost for the lowest-cost group, elderly single renters. Most of the variation occurs in the enrollment process; there is comparatively little difference between group costs for housing certification.

Effects on Maintenance Costs

Participant characteristics apparently have much less impact in determining maintenance costs (see Table 5.13). Here, administrative costs for renters are higher than those for homeowners, but the difference is negligible (\$121 vs. \$119 per recipient-year). The highest cost for any individual group (\$131 for nonelderly renter couples without children) is only 17 percent greater than the \$111 average for the lowest-cost group, elderly single renters.

Composition Shifts and Cost Reductions

The model we have developed allows us to respond to the question raised at the end of the last section: to what extent did shifts in participant compositions contribute to reducing HAO administrative costs between 1976 and 1979?

The simplest approach is to reformulate the question and ask how much costs would have changed over the period if efficiency was held constant and only composition was allowed to vary. To implement the approach, we used unit costs for each participant group (Tables 5.12 and 5.13) and multiplied them by the actual Brown County intake and maintenance composition vectors for each analysis period (same format as in Table 5.10).

This method yields an estimated intake cost of \$160 in April-December 1976, gradually decreasing to \$157 in January-June 1979, a decrease of 1.9 percent in contrast to the actual 36.9 percent decrease noted in Sec. IV. The fixed efficiency method yields almost no change in maintenance cost over the period (April-December 1976 cost of \$121; January-June 1979 cost of \$120), whereas actual maintenance cost declined by 8.6 percent over the period.

Table 5.13

MODEL TOTAL MAINTENANCE COSTS PER RECIPIENT-YEAR,
BY TENURE AND LIFE-CYCLE STAGE

Tenure and Life-Cycle Stage	Payment Operat.	Eligibility Recertification			Housing Recertification		Total Maint. Cost Per Recipient-Year
		Semi-Annual	Annual	Special	Housing Reeval.	Recip. Services	
<u>Nonelderly Renters</u>							
Singles, no children	15.74	22.17	41.91	8.56	22.40	6.32	117.10
Singles, with children	15.74	22.90	42.03	7.20	28.73	7.70	124.30
Couples, no children	15.74	26.32	39.00	20.10	22.99	6.45	130.60
Couples, with children	15.74	24.25	41.58	17.22	23.14	6.47	128.40
All nonelderly renters	15.74	23.14	41.75	10.02	25.72	7.03	123.40
<u>Elderly Renters</u>							
Singles	15.74	19.61	47.92	1.05	20.77	5.96	111.05
Couples	15.74	20.06	49.58	10.84	19.56	5.70	121.48
All elderly renters	15.74	19.67	48.19	2.60	20.58	5.91	112.69
<u>All Renters</u>	15.74	22.27	43.37	8.15	24.43	6.75	120.71
<u>Nonelderly Homeowners</u>							
Singles, no children	15.74	19.74	52.53	13.11	19.61	5.72	126.45
Singles, with children	15.74	21.44	47.30	10.36	20.41	5.89	121.14
Couples, no children	15.74	21.12	45.58	16.38	14.62	4.62	118.06
Couples, with children	15.74	22.92	46.87	19.82	13.74	4.43	123.52
All nonelderly owners	15.74	21.67	47.80	14.36	17.67	5.29	122.53
<u>Elderly Homeowners</u>							
Singles	15.74	18.77	53.41	1.12	20.40	5.89	115.33
Couples	15.74	19.33	54.20	4.94	18.08	5.38	117.72
All elderly owners	15.74	18.94	53.69	2.41	19.65	5.72	116.15
<u>All Homeowners</u>	15.74	20.08	51.21	7.42	18.81	5.53	118.79
<u>All Households</u>	15.74	21.52	46.04	7.91	22.51	6.34	120.06

SOURCE: Estimated by Rand staff based on Brown County HAO client records, accounting records, and Management Information Reports (see accompanying text).

Changes in participant composition, therefore, had very little influence on HAO administrative costs from 1976 to 1979. The cost reductions over the period represented true improvements in administrative efficiency.

VI. TOTAL COST AND COMPARISONS WITH OTHER PROGRAMS

Thus far, we have examined intake and maintenance costs separately. We have yet to bring them together to determine the summary cost measure that can be used to relate HAO costs to those in other programs--long-term total administrative cost per recipient-year. Consistent with the approach described in Sec. II, this measure is derived by dividing intake cost by the average duration of reciprocity for all recipients and adding the average annual maintenance cost.

In this section, we examine the data on reciprocity durations in the Supply Experiment allowance programs and calculate administrative cost totals for both HAOs. We then compare these totals, and their components, to administrative costs in three other programs: the Aid to Families with Dependent Children (AFDC) program; the housing allowance programs operated in the Administrative Agency Experiment (AAE); and the Existing Housing component of HUD's Section 8 program.

THE AVERAGE DURATION OF RECIPIENCY

The length of time recipients remain in the housing allowance program has a significant effect on program efficiency. As preceding sections have shown, the costs of bringing a new recipient into the program are substantial. If the household retains its payment authorization for several years, those intake costs will represent only a small increment in the average annual administrative cost. If, on the other hand, the household drops out of the program after just a few months, the amortization of intake costs implies a marked increase in that average.

Take, for example, the long-term totals given for Brown County in Table 4.5 (\$157 for intake per new recipient, \$120 for maintenance per recipient-year). Using our formula (Eq. (1) in Sec. II), the program's total administrative cost would be \$140 per recipient-year if the recipient stayed in the program an average of eight years

(\$157/8 + \$120). If the average duration of reciprocity was six months, the cost would be \$434 ($\$157/0.5 + \120).

Because data on actual reciprocity periods have not been available to this point, previous estimates of administrative costs in EHAP had to rely on crude assumptions. Based on a rough extrapolation of initial turnover data, AAE researchers assumed the average duration of reciprocity would be five years (Maloy et al., 1977), an assumption built into other summaries of EHAP findings (U.S. Department of Housing and Urban Development, 1979; U.S. Department of Housing and Urban Development, 1980). In earlier Rand studies, a three-year period was assumed (Fourth Annual Report, 1978; Kingsley, 1979). As shown in Sec. V, actual Supply Experiment data are now available to support more reliable estimates.

In Sec. V, we analyzed recipient attrition for different tenure/life-cycle stage groups over the first two program years in both sites, but we did not present data on the aggregate experience for all groups taken together. Aggregate mean durations of reciprocity can be calculated, however, as the weighted averages of the means for individual groups presented in Table 5.5. These work out to be 39.9 months (3.33 years) in Brown County and 45.2 months (3.77 years) in St. Joseph County, averages higher than the assumption of earlier Rand studies but substantially below that used in AAE analysis.

It would not be appropriate, however, to use these averages in calculating total administrative cost per recipient-year. They represent the weighted averages for the groups authorized for payment at the beginning of the program, whereas our long-term estimates are based on experience in the latter part of the operating period (July 1977 through June 1979). We should, therefore, use the average durations of reciprocity for the groups receiving payments at that time.

As shown in Tables 5.10 and 5.11, there were some important changes in the composition of the recipient populations in both sites over the operating period. Most important here, nonelderly couples, the group with the most rapid attrition rate, declined as a proportion of all recipients. This suggests that the average duration of

reciency at steady state might well be longer than implied by the data for years one and two.

Unfortunately, the Supply Experiment has insufficient data on the attrition experience of recipients in years four and five to support independent estimates. If available, such data might show that within particular tenure/life-cycle-stage groups, attrition curves for those authorized for payment in later years might differ from those authorized at the beginning. However, we believe a reasonable approximation of the steady-state average can be obtained by assuming the group-specific reciency durations (Table 5.5) do not change and weighting them in accordance with the composition of the recipient population at steady state. The results are shown in Table 6.1.

The tenure group averages in the two sites are similar. For renters, the implied average duration of reciency is 2.99 years in Brown County and 2.73 in St. Joseph County. For owners, the Brown County average is 5.00 years; the St. Joseph County average, 5.48 years. Because St. Joseph County had a larger proportion of owners, however, its average for all recipients (4.28 years) is notably longer than the comparable average in Brown County (3.68 years).

TOTAL ADMINISTRATIVE COST AND THE COST OF EARMARKING

Having estimated the average duration of reciency, we can now calculate the total long-term cost of administering the allowance program using Eq. (1) in Sec. II and cost data from Table 4.5.

Total Administrative Cost

It costs \$157 per new recipient to administer intake functions in Brown County or (dividing by 3.68 years) \$43 per recipient-year. Adding the expenses for maintenance (\$120), we have total administrative costs of \$163 per recipient-year.

In the St. Joseph County program, intake costs \$54 per recipient-year (\$231 divided by 4.28 years) and maintenance costs \$109. The total (\$163) is exactly the same as that for Brown County.

To compare efficiency, it is appropriate to normalize for reciency duration, i.e., perform the same calculations using the

Table 6.1

AVERAGE DURATIONS OF RECIPIENCY, BY TENURE AND LIFE-CYCLE STAGE: JULY 1977-JUNE 1979

Tenure and Life-Cycle Stage	Brown County		St. Joseph County	
	Percent of Recipient-Years 7/77-6/79	Mean Duration of Recipiency (Months)	Percent of Recipient-Years 7/77-6/79	Mean Duration of Recipiency (Months)
<u>Renters</u>				
Nonelderly				
Singles, no children	13.5	35.21	7.8	30.49
Singles, with children	24.7	35.33	20.4	26.04
Couples, no children	2.8	14.97	1.6	12.58
Couples, with children	8.4	18.55	3.9	12.71
All nonelderly renters	49.4	31.29	33.7	24.89
Elderly				
Singles	13.9	47.85	8.6	58.14
Couples	2.6	58.48	1.3	68.49
All elderly renters	16.5	49.53	9.9	59.50
All Renters	65.9	35.86	43.6	32.75
<u>Homeowners</u>				
Nonelderly				
Singles, no children	2.1	74.07	4.9	48.08
Singles, with children	6.5	28.90	9.3	32.36
Couples, no children	1.0	26.88	1.6	22.78
Couples, with children	4.8	18.35	3.5	13.87
All nonelderly owners	14.4	31.83	19.3	32.20
Elderly				
Singles	13.2	92.59	25.4	87.72
Couples	6.5	56.50	11.7	73.52
All elderly owners	19.7	80.68	37.1	83.24
All Homeowners	34.1	60.05	56.4	65.78
<u>All Households</u>	100.0	44.11	100.0	51.38

SOURCE: Derived from Tables 5.5 and 5.10.

intersite average duration of reciprocity (which rounds to 4.0 years) in both cases. The result is a total of \$159 in Brown County and \$167 in St. Joseph County. It does not seem reasonable to make much of this difference; in fact, if outreach expenses alone are excluded in both sites, the St. Joseph County program has a slightly lower cost (\$155 vs. \$158). We conclude that the two HAOs operated the allowance program at essentially the same level of efficiency.

The Cost of Earmarking

The cost factors now available also allow us to divide total administrative cost between the costs of operating regular income transfer functions and the cost of earmarking. The latter measure is of obvious importance in evaluating allowance program outcomes. Its major component is the cost of administering HAO housing certification functions. In Brown County, housing certification costs \$44 per recipient-year--\$15 in the intake process plus \$29 during maintenance. For the St. Joseph County HAO, the cost is \$54--\$19 in intake plus \$35 in maintenance (four-year duration of reciprocity assumed in both sites).

There is one additional component: the expense of outreach and enrollment functions for households that become enrolled but never qualify for payments. This cost must be included because if there were no earmarking requirement, these households would automatically become recipients, the program's "service yield" (measured by the number of new recipients added to the program) would be increased, and intake costs could be spread over a larger base. The component can be calculated as the difference between outreach plus enrollment cost per new recipient and outreach plus enrollment cost per enrollee. Expressed on a per-recipient-year basis, it works out to \$4 in Brown County and \$9 in St. Joseph County.

In total then, earmarking costs \$48 in Brown County and \$63 in St. Joseph County per recipient-year. The Brown County HAO administers remaining income maintenance functions for \$111; the St. Joseph County HAO for \$104.

Total Administrative Cost by Type of Participant

As noted earlier, total administrative cost per recipient-year is strongly influenced by the average duration of reciprocity. Since there are considerable differences in reciprocity durations among tenure/life-cycle groups, we would expect variation in total administrative costs, somewhat moderated by the effect of fairly uniform maintenance costs among those groups. That is, in fact, the result of our Brown County model (see Table 6.2).

The dominant finding is that it is much more expensive to administer the program for nonelderly couples than for all other groups. The highest administrative cost is for nonelderly renter couples without children (\$261 per recipient-year)--almost twice the expense for the lowest-cost group (\$135 for elderly single renters). Clearly, the elderly (all categories) generate the lowest administrative expenditure. Nonelderly singles generate higher costs than the elderly, but their costs are still much lower than those for nonelderly couples. Although the gap is not large, renters in total generate higher administrative costs than homeowners (\$172 vs. \$153 per recipient-year).

The pattern of earmarking-cost variation by life-cycle stage is similar to that for total costs: nonelderly couples generate the highest costs, singles come next, and the elderly have the lowest cost. There is, however, a larger difference here by tenure. In all life-cycle groups it costs significantly more to earmark assistance for renters than for homeowners. The average for renters (\$55) exceeds that for owners (\$39) by 41 percent. In fact, differences in earmarking explain almost all of the differences in total cost between renters and owners; average costs of administering income transfer functions for the two groups are virtually the same.

When considering the incremental value of earmarking, it is useful to compare its cost directly with the cost of income-transfer functions. The data in Table 6.2 indicate that earmarking raises total administrative cost for nonelderly renters by 50 percent; for elderly renters by 40 percent; for nonelderly homeowners by 37 percent; and for elderly homeowners by 33 percent.

Table 6.2

MODEL TOTAL ADMINISTRATIVE COSTS, ALLOWANCE PAYMENTS,
AND TOTAL PROGRAM COSTS PER RECIPIENT-YEAR,
BY TENURE AND LIFE-CYCLE STAGE

(1976 \$)

Tenure and Life-Cycle Stage	Administrative Cost			Allowance Payment	Total Program Cost
	Income Transfer	Housing Earmarking	Total		
<u>Nonelderly Renters</u>					
Singles, no children	118	52	170	837	1,007
Singles, with children	112	61	173	1,048	1,221
Couples, no children	169	92	261	1,001	1,262
Couples, with children	<u>154</u>	<u>89</u>	<u>243</u>	<u>1,075</u>	<u>1,318</u>
All nonelderly renters	121	61	182	989	1,171
<u>Elderly Renters</u>					
Singles	104	43	147	797	944
Couples	<u>113</u>	<u>40</u>	<u>153</u>	<u>750</u>	<u>903</u>
All elderly renters	106	42	148	791	939
<u>All Renters</u>	117	55	172	941	1,113
<u>Nonelderly Homeowners</u>					
Singles, no children	116	37	153	875	1,028
Singles, with children	130	55	185	961	1,146
Couples, no children	147	50	197	831	1,028
Couples, with children	<u>182</u>	<u>73</u>	<u>255</u>	<u>1,194</u>	<u>1,449</u>
All nonelderly owners	137	51	188	1,025	1,216
<u>Elderly Homeowners</u>					
Singles	100	35	135	727	862
Couples	<u>124</u>	<u>38</u>	<u>162</u>	<u>681</u>	<u>843</u>
All elderly owners	106	35	141	713	854
<u>All Homeowners</u>	114	39	153	836	989
<u>All Households</u>	114	49	163	905	1,068

SOURCE: Administrative cost estimated by Rand staff based on Brown County HAO client records, accounting records and Management Information Reports (see accompanying text). Allowance payments derived from Brown County HAO client records as of June 1978, and adjusted by the Consumer Price Index to compensate for inflation between that date and mid-1976.

Allowance Payments and Total Program Cost

In the housing allowance program, each recipient is entitled to receive monthly payments calculated to fill the gap between the standard cost of adequate housing in the community (different standards being set for households of different sizes) and one quarter of the recipient's adjusted gross income. Because they have different mixes of incomes and household sizes, average allowance payments also vary among tenure/life-cycle-stage groups.

Table 6.2 shows that the distribution of annual allowance payment amounts is generally similar to the distribution of administrative costs. Nonelderly couples have the highest averages; nonelderly owner couples with children receive \$1,194 per year, the highest among all groups. The averages for the elderly are the lowest--\$713 for homeowners and \$791 for renters. Allowances for nonelderly singles fall at various levels in between.

Total program costs (allowance payments plus administrative cost) are thus significantly affected by participant characteristics. Nonelderly homeowner couples with children generate the highest annual expenditures (\$1,449 per recipient-year). This amount is 72 percent greater than the average for the lowest group--\$843 for elderly homeowner couples.

COMPARISON WITH COSTS IN OTHER PROGRAMS: AFDC AND AAE

The literature on the comparative costs of public program administration is sparse, largely because of measurement difficulties. The accounting systems of most programs are not capable of relating expenditures to workloads reliably. Even when unit costs can be sorted out, agencies frequently differ in the nature and quality of service they offer, so that comparisons are often tenuous even though agency missions are basically the same. However, three programs with cost data that can sensibly be compared with the HAO experience are the AFDC program, the housing allowance programs operated as a part of the AAE, and HUD's Section 8 Existing Housing program.

Comparison with AFDC

Cost data for state and local AFDC administration have been compiled by Campbell and Bendick, 1977, from program financial and caseload statistics. As shown in Table 6.3, AFDC's national average is more than two and one half times the income-transfer cost of the HAOs; this is the relevant comparison because the housing certification function is not performed in AFDC. Only two of the fifty states had AFDC costs that were equal to or lower than the HAO income-transfer average of \$107.

Comparison with AAE

In the AAE, eight limited-scale housing allowance programs (enrollment averaged just over 1,000) were administered by different types of agencies (two local housing authorities, two welfare offices, two units of metropolitan government, and two state agencies with responsibilities for housing programs). The programs ran for two years each. HUD specified the basic program standards and functions that each agency had to perform, but discretion was left to the agencies in the design of administrative procedures. (See Holshouser, 1977, and Hamilton, 1979, for complete descriptions of the AAE and its findings.)

Maloy et al., 1977, calculated administrative costs for the AAE programs in basically the same structure used in this analysis. Therefore, we can examine similarities and differences between these programs in greater detail. Table 6.4 presents the data.¹ Pertinent observations are:

1. Overall, the Supply Experiment allowance programs were operated much less expensively than those in the AAE. The Supply Experiment median total cost per recipient-year (\$163) was

¹ AAE costs in this table are as provided in Maloy et al., 1977, with two adjustments: (1) costs were increased by 14.7 percent to compensate for inflation from mid-1974 (roughly the midpoint of AAE operations) to mid-1976; (2) intake costs were amortized over a four-year duration of reciprocity (the average for the two Supply Experiment sites) in calculating total administrative cost per recipient-year. Also, costs for the Jacksonville, Florida, AAE site were excluded because operating experience there was not comparable to that in the other sites.

Table 6.3

ADMINISTRATIVE COSTS OF HOUSING ALLOWANCES AND AID
TO FAMILIES WITH DEPENDENT CHILDREN

Program and Jurisdiction	Annual Cost Per Case (\$)		
	Income Transfer	Housing Requirements (Earmarking)	Total
<i>Housing Allowance Program</i>			
Brown County	111	48	159
St. Joseph County	104	63	167
Average	107	56	163
<i>AFDC^a</i>			
New York (highest cost)	582	(b)	583
California	441	(b)	441
Indiana	226	(b)	226
Wisconsin	145	(b)	145
Arkansas	107	(b)	107
Mississippi (lowest cost)	77	(b)	77
National Average	295	(b)	295

SOURCE: AFDC data are from Campbell and Bendick, 1977, pp. 7, 8, 252, and 253.

NOTE: AFDC costs per case are based on amounts spent during fiscal year 1976 for determining eligibility and administering payments, divided by the average monthly caseload during that year; costs of social services to recipients are excluded from the table.

^a Entries are shown for selected states; the national average (50 states) weights each state's costs by its caseload.

^b AFDC is not earmarked, thus it has no administrative expense for these functions.

Table 6.4

COMPARISON OF ALLOWANCE PROGRAM ADMINISTRATIVE COSTS
IN THE AAE AND THE SUPPLY EXPERIMENT

	Administrative Cost (1976 \$)					
	Administrative Agency Experiment			Supply Experiment		
	High	Low	Median	Brown County	St. Joseph County	Median
<u>DIRECT INTAKE COST PER NEW RECIPIENT</u>						
Outreach	76	3	17	3	24	13
Eligibility certification (enrollment)						
Screening and scheduling	40	15	24	10	15	12
Interview, error control, data proc.	35	9	15	34	43	33
Subtotal	62	29	48	43	58	50
Housing certification						
Housing evaluation	34	2	17	26	33	20
Enrollee services	73	12	36	1	6	4
Subtotal	86	22	53	27	39	33
Total	218	69	125	73	121	96
<u>DIRECT MAINTENANCE COST PER RECIPIENT- YEAR</u>						
Payments operations	24	11	14	7	6	6
Eligibility recertification	45	10	17	35	33	34
Housing recertification						
Housing reevaluation	17	--	8	13	17	15
Recipient services	97	13	28	1	1	1
Subtotal	108	15	39	14	18	15
Total	151	47	61	56	57	56
<u>INDIRECT COST PER \$1 OF DIRECT COST</u>	2.00	.82	1.67	1.15	.90	1.02
<u>TOTAL COST (INCLUDING INDIRECT COST)</u>						
Intake cost per new recipient						
Including services	397	207	299	157	231	194
Excluding services	302	123	202	155	219	187
Maintenance cost per recipient year						
Including services	351	111	175	120	109	115
Excluding services	195	60	111	118	107	113
Total cost per recipient year						
Including services	403	194	235	159	167	163
Excluding services	226	141	164	157	162	160
<u>COST OF EARMARKING</u>						
Including services	275	61	138	48	63	56
Excluding services	77	8	37	45	58	52

SOURCE: Supply Experiment data from Table 4.5. AAE data are from HUD, 1980 and Maloy et al., 1977.

NOTE: Costs for the AAE were calculated similarly to those for the Supply Experiment programs, assuming the HAO four-year average duration of reciprocity in each case. Their reported costs were then adjusted, using the Consumer Price Index to compensate for inflation between the expenditure dates and mid-1976. Costs for the Jacksonville, Florida site were excluded in establishing the range because operating experience there was not comparable to that in the other sites (see Hamilton, 1979).

considerably below the lowest cost in the AAE range (\$194) and one-third lower than the AAE median (\$235).

2. Although there was little difference between costs in the Supply Experiment sites, the range of cost experience in the AAE sites was quite broad: the highest total AAE cost (\$403) exceeded the lowest by 107 percent.

3. One reason the AAE costs were higher was that the AAEs typically spent more in indirect cost for every dollar of direct cost; the median ratio was 1.67 compared with 1.02 for the Supply Experiment.² This relationship is consistent with our earlier findings on scale effects in indirect costs. The AAE agencies operated programs whose average enrollment was less than one-fifth of the years four and five average for the HAOs. One implication is that the cost gap between the experiments is reduced somewhat when only direct costs are examined.

4. The remainder of the gap can be better understood by examining differences in the way the two experiments performed the basic allowance program administrative functions:

- During their first two years, the HAOs spent much more for outreach than the typical AAE agency. The comparison shown on Table 6.4 is somewhat misleading, since only HAO costs for later years are shown. However, we think initial HAO outreach costs would be unlikely in a regular operating program. The medians indicated in the table (\$13 to \$17 in direct costs per new recipient) might be a reasonable estimate in that context.
- The AAE agencies spent about the same amount for enrollment as the HAOs (\$48 vs. \$50 per new recipient) and much less for eligibility recertification (\$17 vs. \$34 per recipient-year), but there were marked differences in the work done

² The ratios for the Tulsa AAE agency were excluded because that agency contracted a large portion of administrative workload and its records do not properly account for contractor indirect expenses.

for those costs. The HAOs, with regular recertifications every six months plus specials, performed more than twice the workload of the AAE, which conformed to HUD Section 23 regulations requiring recertifications only annually for the nonelderly and once every two years for the elderly. In addition, the HAOs had more extensive error-control requirements (data review, verifications) in enrollment and all recertifications. (See Tebbets, 1979, and Rizor, forthcoming.)

- The AAEs also spent less on housing evaluation than the HAOs (median direct costs of \$17 vs. \$29 per new recipient in intake and \$8 vs. \$15 per recipient-year in maintenance). Again, however, the AAEs did not provide the same level of service. AAE evaluation procedures were less rigorous and none of their agencies implemented a regular quality-control program like that employed by the HAOs. In one AAE site, housing inspections were performed by enrollees rather than agency staff (see Hamilton, 1979).
- The only indication of significant economies of scale in direct function costs appears in the payments function. The HAO median costs for payment operations was \$6 per recipient-year in contrast to \$14 for the AAE agencies. It is no doubt significant that HAO disbursements were fully automated (the computer yielded payment checks already enclosed in envelopes addressed to the proper recipients) but AAE disbursements were not.
- By far, the greatest contrast in the administrative approaches in the two experiments is in the provision of services. Median direct AAE expenses were \$36 per new recipient in intake (vs. \$4 for the HAOs) and \$28 per recipient-year in maintenance (vs. \$1 for the HAOs). Services, in fact, account for almost all of the administrative cost difference in the two experiments; without them the median AAE total per recipient-year would have been \$164 compared with \$160 for the HAOs.

COMPARISON WITH THE SECTION 8 PROGRAM

The Section 8 "Lower-Income Housing Assistance Program" was introduced in the Housing and Community Development Act of 1974 (designated as Section 8 of the Housing Act of 1937 as amended [42 U.S.C. 1401 et seq.]). Under Section 8, households receive subsidies equal to the difference between their actual rent and, in most cases, 25 percent of their adjusted gross income (in special circumstances the tenant contribution may be set as low as 15 percent of total income). Rents generally may not exceed "fair market rents" (FMR) estimated by HUD for different communities.

The program has three major components: (1) New Construction; (2) Substantial Rehabilitation; and (3) Existing Housing. In the first two, project sponsors build new housing or rehabilitate older structures under an agreement with HUD, which promises continuing subsidies to tenants over a 20- to 40-year period.

It is the Existing Housing program, however, that offers a relevant basis of comparison with HAO administrative costs. In that program, as in the housing allowance program, subsidies are paid to assist households in existing private housing that meets program housing quality standards. Although at this most basic level the two programs are similar, there are a number of differences in their rules. Most important:

1. Section 8 assists renters only; homeowners are not allowed to participate.
2. Section 8 subsidy payments are disbursed to the landlord, not directly to the tenant. Agencies administering Section 8 enter into contracts with landlords, whereas agencies administering an allowance program have no direct dealings with landlords.
3. In the allowance program, households receive the difference between one quarter of their income and the standard cost of adequate housing, regardless of their actual rent. In Section 8, the gap between one quarter of income and actual rent determines the subsidy. The FMR acts as a ceiling;

assisted households may not lease units whose rents exceed the FMR, even if they would be willing to pay the difference themselves.

Differences in Administrative Functions

In most communities, the Section 8 Existing Housing program is administered by a local Public Housing Authority (PHA), an agency that already existed to operate conventional public housing. The differences in rules noted above, and others, give the PHAs administrative responsibilities that are not required in a housing allowance program. As a part of a broader study of the Section 8 program, Marc Wynn (1981) of HUD's Policy Development and Research staff identified these additional functions. In the intake phase, there are two:

- Landlord Outreach. Informing landlords about the program and its rules (through advertising, presentations to landlord organizations, etc.) and encouraging them to participate.
- Landlord Contract and Rent Negotiations. Meeting with landlords to discuss and negotiate the details of program contracts and to determine approved rent levels (involving the application of a "rent reasonableness test" and, in some cases, requesting and controlling rent exceptions).

In the maintenance phase, Section 8 agencies also perform two functions not required in an allowance program.

- Eviction and Vacant Unit Processing. Reviewing and approving landlord requests to evict tenants. Inspecting units that are vacated while the contract with the landlord remains in force, and processing forms related to a vacancy-loss allowance the program grants landlords.
- Landlord Contract and Rent Renegotiations. Activities, similar to those in the intake negotiations, performed as contract modifications become necessary.

In comparing administrative costs then, it is important to keep in mind that at the same level of efficiency, a Section 8 program should cost more than an allowance program because of its extra functions.

Comparison of Operating Experience and Cost

To find out more about the administration of the Section 8 Existing Housing program, HUD's Office of Policy Development and Research sponsored a survey of PHA experience in FY 1979 (Coopers and Lybrand, 1981). Questionnaires were sent to a representative sample of 435 PHAs out of the approximately 1,700 then administering the program; usable data on total costs were eventually obtained for 266.

We present selected operating ratios and staffing and cost data drawn from the survey in Table 6.5. The first column contains averages for all PHAs that reported cost information. Since experience in Section 8 varies by program size, data for two different size groups are also presented--averages for programs with less than 50 recipients in the second column, and for those with from 500 to 999 recipients in the third (the survey offered some data on programs with more than 1,000 recipients but we judged the sample too small for the comparisons that are relevant here). In the last three columns, comparable data are presented for the Supply Experiment housing allowance programs (July 1977-June 1979).

The first measure on the table is administrative cost per recipient-year, calculated simply by dividing total cost by total recipient-years over the relevant observation periods. There is considerable variation: the cost for the small Section 8 programs was 43 percent higher than the \$289 Section 8 program average, which was in turn 35 to 45 percent higher than costs for the larger Section 8 programs and the allowance programs.

A major thesis of this note, however, has been that costs calculated in this way do not permit meaningful comparisons (see Sec. II). Without more analysis, we cannot tell whether there are any differences in the operating efficiency of these programs; all of the cost variation could be explained by factors creating different workload requirements (particularly differences in growth rates).

Table 6.5

OPERATING AND COST RATIOS: SECTION 8 EXISTING
HOUSING AND HOUSING ALLOWANCE PROGRAMS

Item	Section 8 Program (10/78-9/79)			Housing Allowance Program (7/77-6/79)		
	All Agencies	Less than 50 Recip.	500-999 Recip.	Average	Brown County	St. Joseph County
Number of agencies reporting costs	266	73	16	2	1	1
<i>Selected Operating Ratios</i>						
Administrative cost per recipient-year (1976 \$ not normalized)	289	414	214	200	185	214
New recipients per 100 applicants	40	44	40	45	52	37
New recipients per 100 recip.-years	48	69	30	44	42	45
Recipient terminations per 100 recipient-years	25	24	20	35	34	35
Net recipients added per 100 recipient-years	23	45	10	9	8	10
<i>Staff Ratios by Function</i>						
Intake staff person-years for 100 new recipients						
Landlord outreach	.60	.82	.52	--	--	--
Landlord contract negotiation	1.02	1.22	.64	--	--	--
Tenant outreach	.70	.94	.36	.03	.01	.04
Eligibility certification	1.38	1.62	.88	.59	.51	.68
Housing certification	.32	.38	.44	.37	.31	.42
Total	4.02	4.98	2.84	.99	.83	1.14
Maintenance staff person-years per 100 recipient-years						
Eligibility recertification and contract renegotiation	.58	.90	.37	.40	.43	.37
Housing certification	.18	.25	.13	.18	.15	.20
Total	.76	1.15	.50	.58	.58	.57
Total staff person-years per 100 recipient-years (normalized)	1.77	2.39	1.21	.83	.79	.86
<i>Estimated Administrative Cost (1976 \$)</i>						
Administrative cost per staff person-year (\$ 000)	10.8	9.0	15.8	19.6	20.1	19.4
Total cost per recipient-year (normalized)	190	216	191	163	159	167

SOURCES: Housing allowance program data from Tables 4.1, 4.5 and Appendix D. Section 8 data are from Coopers and Lybrand, 1981.

NOTES: Section 8 staff person-years per 100 recipient-years and total cost per recipient-year are calculated by the same method used to normalize HAO costs assuming the HAO four-year average duration of reciprocity in each case. All Section 8 costs were adjusted by the consumer price index to compensate for inflation between April 1979 and June 1976. Housing allowance program staff ratios were calculated by applying to staffing by function (Appendix D) the same methods used to calculate cost ratios for the same functions.

The Coopers-Lybrand data base does not contain all of the workload ratios for the Section 8 program that we have calculated for housing allowances, but some are available. An important one is the extent of attrition during enrollment, shown by the next indicator on the table. Little variation is evidenced. On the average, 40 households out of every 100 that applied for the Section 8 program eventually became recipients. In the housing allowance program, the average yield was 45.

There is much more variation, however, in program growth rates during the observation periods. The next three indicators measure the relevant components of change in recipient populations. In the total Section 8 sample in FY 1979, 48 new recipients were authorized for payment and 25 existing recipients were terminated, yielding a net growth of 23 (all per 100 recipient-years). The smaller Section 8 programs were growing about twice as fast, with a net increase of 45 per 100 recipient-years; the termination rate was about the same as that for the total sample, but the intake rate (69 new recipients per 100 recipient-years) was much higher. Growth in the larger Section 8 programs was slower; 30 new recipients added and 20 terminated, yielding a net increase of 10.

From July 1977 through June 1979, the Supply Experiment allowance programs were also growing (at about the same rate as the larger Section 8 programs) but the components of change were quite different. The intake rate (average of 44 new recipients per 100 recipient-years) was about the same as for the total Section 8 sample; the termination rate (35) was much higher than the 20 to 25 averages for the Section 8 groups.

To understand the cost implications of these different growth rates, we need some breakdown of costs by function. Section 8 accounting systems do not provide this information. The only option open to the survey designers was to ask PHA managers to estimate the proportion of staff time spent on various functions.

We have doubts about the usefulness of the resulting data (shown in the next block on Table 6.4) for detailed analysis for two reasons. First, the list of functions on the survey was not very detailed; thus

there was some room for classification error by program managers. Second, all of the agencies that reported aggregate cost information did not complete the staff time estimates; for some functions, less than 60 percent provided usable information. Nonetheless, given the large size of the basic sample, we judge the data adequate for the broad comparisons we need to make here.

In the intake phase, the typical Section 8 agency required 4.02 person-years of staff work for every 100 new recipients brought into the program. Forty percent were used for the two special Section 8 functions (landlord outreach and contract negotiation).³ The remaining amount the Section 8 agencies devoted to allowance program functions (2.40 person-years per 100 new recipients) was still much larger than the staff requirement for the same functions in the Supply Experiment allowance programs (.99 person-years).

Staff work in the maintenance phase did not vary as much. On the average, the Section 8 programs used .76 person years per 100 recipient-years; the allowance programs used .58. Important functional differences need to be emphasized. The Section 8 agencies had much less eligibility recertification work to do. They had the same requirements that applied in the AAE--recertifications annually for the nonelderly and every two years for the elderly.⁴ The allowance programs required recertifications for all households every six months and performed special recertifications as well. On the other hand, the Section 8 agencies have extra maintenance work because of the special Section 8 functions (not broken out separately in the Coopers-Lybrand report). Without data for more detailed functions in Section 8, accurate efficiency comparisons remain infeasible.

³ The accuracy of these proportional divisions by functions is questionable. In connection with the study noted earlier, Wynn (1981) asked five PHAs about staff time devoted to various functions, using a more detailed and well-defined taxonomy. Among the five, the largest share of intake phase staff work devoted to the special Section 8 functions was 28 percent; the smallest was 13 percent; the average 20 percent. The largest share devoted to special Section 8 functions in the maintenance phase was 38 percent; the smallest was 15 percent; and the average 23 percent.

⁴ The Section 8 program has changed recertification requirements since the Coopers-Lybrand survey. Now all households must be recertified annually.

Total administrative staff requirements can be computed by the same method we have used earlier with administrative costs, i.e., by amortizing intake requirements over the average duration of reciprocity. Here, to normalize, we assume the Supply Experiment average duration of four years for all programs. We find that the average Section 8 agency required 1.77 person-years of work per 100 recipient-years; the small Section 8 programs used 35 percent more and the larger programs, 32 percent less. The housing allowance programs, serving substantially more recipients than even the larger Section 8 programs, required an administrative staff of only .83 person-years per 100 recipient-years--less than half of the manpower required for the typical Section 8 agency.

There is a striking difference, however, between staff requirements per recipient-year and total administrative resource requirements (measured by cost). In the Section 8 programs, total administrative cost per recipient-year increases regularly with increased program size. The small Section 8 programs spent an average of \$10,800 per staff person-year, the larger programs shown on Table 6.4 spent \$15,800, and the biggest programs (those with over 1,000 recipients) spent even more (\$17,800). Consistent with this curve, the allowance programs, with an average size of 4,200 recipients, spent an average of \$19,600 on administration per staff person-year. Some of this difference may be due to salary differentials, but we think more of it is explained by more extensive capital use in larger programs. The allowance programs, for example, relied heavily on the computer and other mechanical aids to improve efficiency. Most small programs probably could not afford to begin equipping themselves in these ways.

The net effect, even given these differences in cost per staff member, is that the larger programs are more efficient. The administrative cost of the small Section 8 programs (\$216 per recipient-year) is 13 percent above that for the larger Section 8 programs and one third larger than the \$163 cost for the allowance programs.

VII. POLICY IMPLICATIONS

The past decade has seen a growing pessimism about the possibility of improving efficiency in public programs. A number of scholars have emphasized that the incentive structures in government agencies are all wrong. Bureaucrats who attempt to eliminate waste face strong barriers and few personal rewards.

The problems take different forms in different agencies. HUD, for example, is not directly responsible for the field administration of the programs it supports. In most cases, local public housing agencies are the direct providers of service, and many appear to have serious administrative problems (see Struyk, 1980). What can a well-intentioned HUD official do to influence PHA behavior? PHAs are primarily responsive to the political realities in their own communities, not to HUD.

Against this background, the administrative experience of the HAOs in the Supply Experiment offers no major revelations, but it should at least be categorized as good news. It indicates that efficiency and control are not always unachievable goals. Agencies in two quite different communities were able to operate large-scale programs at costs substantially below those of others for which reasonably comparable cost data are available; and they were able to consistently improve administrative efficiency year by year over a five-year period. More significant testimony may be the fact that precise measures of performance by the two HAOs were so often nearly the same. For that to have happened, effective controls of some kind had to be operating.

It is worth remembering that the HAOs were not profit-making organizations. Ample funding was assured by HUD. They did not have to compete with other institutions to get work. Their survival did not depend on cost reduction. Nonetheless, to be sure, all HAO experience is not easily transferrable to the usual government program. Two major qualifications need to be emphasized. First, the HAOs were corporations set up by Rand to operate in a highly visible experimental environment. We noted earlier that even though almost

all HAO staff were recruited locally and paid salaries that were in keeping with those in local public agencies, we think their skill and motivation were clearly superior to what one might expect to find in a typical local program.

Second, the HAOs had an intentionally simple list of administrative functions to perform. For the key functions (means tests and housing evaluations), it was possible to define clear measures of output and productivity, to set targets, and to track performance against them. The effective performance of these functions was indeed demanding, but they did not carry with them the potential complexities of tasks like direct rent negotiations with landlords, supervising and auditing housing construction, or managing the day-to-day operations of low-income multifamily housing projects.

Although these qualifications temper the good news somewhat, we do not believe they undermine our basic conclusions--that externally motivated efforts to improve the efficiency of some local agency functions can make a difference, and that HAO experience offers some relevant guidelines for such efforts. Specific lessons are drawn as we review opportunities under the six administrative cost determinants we identified in Sec. V.

INPUT PRICES

There is little a local agency can do to influence the prices of labor and other commodities it needs to run its program. Costs can be reduced to an extent by the implementation of sound contracting, purchasing and personnel recruitment policies; and a supervising agency can set standards in this regard and require external audits to ensure conformance. Both HAOs followed up-to-date business practices in these areas (see Katagiri and Kingsley, 1980, Chaps. 4 and 5). However, HAO experience does not suggest that these practices offer major opportunities for efficiency improvement.

STAFF QUALITY

With respect to enhancing staff quality, the most important message from HAO experience is the role of a carefully designed staff training

program. Elsewhere (Kingsley, 1979), we emphasized the contribution of HAO training in promoting accuracy and considerate treatment of clients in means test administration. Training, however, was also one of the keys to achieving HAO efficiency objectives. First, it provided an initial opportunity for managers to make it clear to all employees that efficiency was high on the HAOs' list of priorities. They did this not only by saying so; the message was reinforced as trainees learned about management reporting systems that tracked individual and unit productivity, and the way system reports would be used in employee performance evaluations. Second, training conveyed the best current institutional wisdom about the most efficient way to handle individual tasks. Procedural steps for many HAO tasks were tightly prescribed and reinforced by forms and manuals. Training thus reduced employees' discretion to follow wasteful steps in processing.

MANAGEMENT AND ORGANIZATION

In Sec. IV, we documented the continued improvements in administrative efficiency in both HAOs as the Supply Experiment proceeded, and we gave most of the credit for these improvements to HAO management. Three actions by Rand, however, set the stage for this outcome:

1. Recruiting skilled management professionals. The HAO recruitment process was particularly rigorous for key management positions; high standards were set and more time spent in the search. From the director on down, managers hired at each level had the primary responsibility for recruiting their own immediate subordinates. Some mistakes were made, but by and large, this practice worked. It is all too easy, of course, to advise that local agencies give special care to recruiting talented managers for leadership roles. We recognize that perhaps even more than in their recruitment of general staff, the HAOs had an edge in recruiting for management positions. Compared with most local agency jobs, these positions offered some particularly attractive nonmonetary rewards..

2. Building-in incentives for managers to promote efficiency. Even managers who have the personal desire and skills needed to

improve agency efficiency are unlikely to make an adequate effort in that direction unless their environment provides reinforcement. Rand and local HAO trustees required HAO managers to prepare regular reports on administrative cost-output relationships, paid attention to those reports and gave the results weight in decisions about managerial salaries. HAO managers knew that data on costs and outputs would be widely publicized in Rand research reports.

Again, however, an exhortation to other local agencies to follow the HAO example in this regard does not make much of a contribution. Surely, more could be done to provide incentives; but local governing bodies are limited in their ability to reward government managers for efficiency improvements, and the managers are limited in their ability to hire, fire, and take other steps necessary to achieve them.

3. Providing tools for more effective management. Special emphasis was given to the design of HAO management information systems. Rand and HAO managers worked together to devise measures of performance that would be credible to staff as well as overseers. They relied on computer-generated numbers wherever possible so the preparation of management reports would not be regarded as a sizable additional burden by the staff. Report formats were carefully designed to display important changes prominently, so they would not be missed in a sea of detailed tables.

We believe these tools were, if anything, more important in achieving efficiency improvements in the HAOs than the first two items noted above. This judgment may seem surprising to many readers, but we think the potential motivational power of information is often unjustly discounted.

Consider the motivations of a section supervisor whose unit's productivity is reported at the end of each week. If the line on the graph turns down, everyone (his colleagues, his boss and his boss' boss) will know. He has good reason to take the steps necessary to prevent that from happening, or if he cannot, to develop a reasonable explanation of why doing so is beyond his control. The

latter surfaces problems and as such is an important part of the manager's job.¹

Top management in the HAOs reviewed performance reports for individual units and took appropriate follow-up actions as a part of their regular week-to-week schedules. Rand and local HAO trustees received monthly summaries and discussed general trends in broad meetings, but seldom questioned the director handling performance at the section level. On the whole, we found that the reporting systems made the task much easier for higher levels of management. It was important for them to have access to regular reports and to make it clear that they were paying attention to the data, but they did not often have to intervene to fix section problems unless the supervisor called for help. The existence of the systems provided incentives for supervisors to detect and fix emerging problems themselves, where possible, before those problems showed up in the statistics.

Among all elements of HAO management that proved effective, their experience with management information systems offers lessons that probably have the broadest applicability. Compared with the HAOs, most local agencies may well be constrained in their ability to attract talented managers and provide them with continued incentives for cost reduction; but few have taken advantage of existing opportunities for management system development. HAO experience suggests that the operation of such systems alone can make a substantial difference in agency behavior; and given dramatic decreases in computer costs in recent years, cost is no longer the barrier it once was.

How important was the Supply Experiment context in encouraging the development and use of management information systems? There is no doubt that Rand had a greater stake in ensuring data quality than typical local agency managers. We argue, however, that although this motivation was supportive (it created an atmosphere in which care in

¹ The HAOs prepared regular reports on quality-control results as well as productivity, so that permitting the staff to become careless was not an effective way for a supervisor to make the productivity chart look better.

the generation and use of data was valued), it was by no means central.

Rand's initial research charter required data on client and housing characteristics only. The cost accounting framework described in this note; several of the quality-control techniques; and the extraction of data from these sources and the research files to form recurrent management reports were not mandated by experimental needs. They were initially developed by FPOG solely to enhance HAO management. It was only after they were developed that HUD decided to support administrative research in the Supply Experiment.

We are convinced that if HUD decided to support the improvement of management information systems in PHAs, and offered a reasonable amount of design guidance and technical assistance, significant improvements to its program services would result, even if the systems developed were less detailed or refined than those of the HAOs.

PROGRAM SCALE

Knowledge of the effects of scale on costs is of little benefit to the manager of a steady-state program, but can be valuable when major program expansions are being planned. Should the city expand its Section 8 program, for example, by increasing staff at its current central office or by establishing a new branch office?

This study contains far too little data to offer a thorough assessment of the issue, but it supports some general conclusions. We found scale had little effect on costs in the Brown County and St. Joseph County housing allowance programs (from 3,000 to 6,500 current recipients). The Coopers-Lybrand study found that the larger Section 8 programs (over 500 recipients) had substantially higher administrative costs than the allowance programs, but they also had more extensive administrative functions to perform (Table 6.4). The ratio of total administrative cost to staff size was similar in these programs and the allowance programs, giving no evidence of substantially different technologies at work. In fact,

Coopers-Lybrand data showed little difference in total administrative cost per recipient-year all the way down to agencies in the 50-99 recipient range, although the cost-staff ratio did decline as program size decreased. It was in the below-50 category that cost increased sharply and the cost-staff ratio declined most. Thus it appears that given the technologies available in the late 1970s, scale had little effect on administrative cost for programs serving 50 or more recipients.

Technologies, of course, can change. The cost of administering means tests is particularly sensitive to what happens in the computer industry. It is no longer difficult to imagine staff in very small agencies keying interview responses directly into the small computer they use for word processing.

PARTICIPANT CHARACTERISTICS

The main purpose of our analysis of administrative cost variations by type of participant is to provide information that would help managers of other programs assess their administrative budget requirements. Although the data presented there cannot be used to predict costs in other programs precisely, the underlying structure of our model and the proportional relationships in group costs we have identified should be helpful in budgeting for programs that have to perform a similar list of administrative tasks. We believe that participant characteristics affect administrative expenditures in most government transfer programs. Programs in cities whose eligible populations are dominated by young families face quite different pressures than those whose recipients are mostly elderly singles.

Beyond this, we raise a question about eligibility rules for housing programs. We do not believe that monetary assistance should be denied to any group with very low income just because they happen to generate higher administrative cost for the disbursing agency. To do so would frustrate generally held equity objectives. We doubt, however, that the extra cost of earmarking assistance payments for housing is justified for some types of households, such as those temporarily unemployed.

Young couples generate the highest administrative cost in the Supply Experiment housing allowance programs. Total program costs would have been reduced if they had not participated. But it would be inappropriate to exclude households from any program on the basis of age and household composition. The underlying characteristic that makes such groups more expensive is volatility in household circumstances which implies short durations of reciprocity. There is a rationale for earmarking housing assistance only for those who are more durably poor.

Recent studies of family housing expenditures (e.g., Mulford, 1979) recognize that households base their decisions on how much they will spend for housing on their longer-term income expectations rather than on their momentary income. When the breadwinner of a household that has had a decent income level loses his or her job, it is not likely that housing expenditures will immediately be reduced. Only after a prolonged period of inability to find a comparable source of income will a move become necessary. Therefore, we would expect housing allowances to have little effect on housing consumption during short-term periods of unemployment.

Further study would be required to define the most effective rule for excluding households with very low expected durations of reciprocity. One option would be not to start housing assistance until six to nine months after the loss of a primary source of income, or after the period of coverage by unemployment insurance expires. Another would be to use the household's income over the last full year (rather than the current rate of income as has been used in the allowance program) as the basis for eligibility determinations. This approach is administratively more difficult, however. Considerably more data would have to be collected and documented in enrollment interviews than is required with the current-rate approach.

ADMINISTRATIVE RULES AND PROCEDURES

Both HAOs in the Supply Experiment operated under the same tightly prescribed administrative rules and procedures. We have shown that

resulting total administrative costs were low in relation to other programs for which comparable data are available, but we have not demonstrated that HAO rules and procedures are optimal.

It is not difficult to envision changes that would considerably reduce administrative costs per recipient-year, but all changes of any consequence would involve tradeoffs, usually with program integrity. Relaxing the stringency of rules or eliminating currently required checking procedures would inevitably increase erroneous allowance payments to recipients. Modifications that improve administrative efficiency could well reduce overall program efficiency.

This note provides the framework for estimating the effect of various procedural changes on administrative costs. A companion study (Rizor, forthcoming) offers the structure for estimating the effects of such changes on allowance payments. The tradeoffs are examined explicitly in our final report on allowance program administration in the Supply Experiment (Kingsley, Kirby, and Rizor, forthcoming). There we highlight three options specifically suggested by the analysis in this note.

1. Reducing the frequency of recertification. We noted that the Section 8 program recertified recipient eligibility only once each year for the nonelderly and once every two years for the elderly. If the HAOs had adopted those requirements, maintenance workloads would have been dramatically reduced. However, HAO semiannual recertification terminated payments for many participants who had become ineligible. Under the Section 8 approach they would have continued to receive payments for at least six months longer. How would the administrative savings compare with the payment losses? Can we use knowledge of these relationships to define an "optimum recertification frequency," perhaps quite different from either the HAO or the Section 8 approach? Does the optimum frequency vary for different types of participants?

2. Cutting back error control. Staff data review and third-party verification are expensive, and the HAOs used both techniques intensively. Was the benefit (accuracy, reduced erroneous payments) worth the cost? If it makes sense to apply these

error-control techniques at all, what sample sizes yield the maximum reduction in error per administrative dollar?

3. Expanding enrollee services. Several AAE agencies provided extensive service to help enrollees meet program housing requirements and qualify for payments. In contrast, the HAOs spent negligible amounts on services. It is not clear on the surface which approach is more efficient. If more intensive services could significantly increase the proportion of all enrollees who convert to recipient status, they would improve efficiency. Money spent on enrollees who do not ultimately become recipients is wasted. What is the relationship between the cost of services and savings from higher conversion rates? With more services, could the HAOs have reduced administrative cost per recipient-year? Would the payoff differ depending on the types of service provided and the way services are delivered?

EVALUATING PROGRAM PERFORMANCE: A LESSON FROM HAO EXPERIENCE

A final lesson may be drawn from the HAOs' experience--one related to the approach by which public programs are evaluated. The past decade has in fact been the age of "program evaluation" in the federal government. Recognizing that many operating problems exist, Congress funded a large number of evaluations to find out more about them. Typically, independent analysts were brought in to collect and examine data on program activities, to identify and explore the causes of problems, and to draw implications for policy. Many of the evaluations yielded valuable new insights, but they were often frustrated. Sometimes data on key variables were simply unavailable. The link between evaluation results and subsequent program improvements was often weak.

In the housing allowance programs, administrative evaluation was built into the fabric of day-to-day program operations at the outset. Managers at all levels were told that recurrent evaluation was a part of their job description, and management systems both facilitated the activity and ensured that it took place. If a Congressman or local legislator wanted to find out how well the HAOs were doing their job,

he did not have to hire an independent team to do an analysis. The facts were readily available in a form he could understand. He could also understand the controls that existed to ensure the validity of the data. The link between problem identification and problem solving also did not depend on external intervention, but if HAO management had become inattentive, reporting systems would automatically have raised the flags needed to alert HUD and community officials that external attention was needed.

We do not suggest that the need for all external program evaluations would be eliminated if built-in evaluation functions were developed for all public programs. We do believe however, that the efficiency of government program evaluation would be enhanced if the balance shifted in that direction.



Appendix A

CLIENT ACCOUNTING

This appendix presents complete five-year data for both sites on client accounting, i.e., the tracking of movements in and out of the basic stages of participation--applicant, enrollee, recipient, terminee. Tables A.1 and A.3 present annual client accounting summaries for each site; Tables A.2 and A.4 present data in the same structure as of the end of each quarter (three-month period). Appendix B contains data on workloads processed by the HAOs, i.e., the numbers of interviews, verifications, housing evaluations, etc., completed.

The client accounting and workload data used in this report were derived from monthly management reports prepared by the two HAOs. The HAOs' computer-based data-processing system, the same system that generated client and housing research files for Rand, was the source of most of the data; but some were manually tabulated under regular protocols developed jointly by the HAOs and Rand.

Those interested in a more complete understanding of the sources of HAO client accounting data should refer to Katagiri and Kingsley, 1980, Chap. 16. Status summaries in the original account structure were presented regularly in Supply Experiment annual reports (see, for example, Sixth Annual Report, 1980, Table 2.1). The original definitions were retained throughout the experimental period and are still valuable for many purposes. In this report, however, we recognize and explain an alternate set of definitions more appropriate for administrative analysis.

THE REINSTATEMENT PROCESS

The alternate definitions are needed because of a procedural change implemented in both sites in April 1976--the initiation of the reinstatement process. This change considerably improved operating efficiency but unfortunately, complicated the task of client accounting.

The change pertained to enrolled households (authorized to receive payments or not) that had been terminated from the program and subsequently applied to participate again. Originally, such households were simply "reenrolled," going through the various stages of intake as if they had never been involved with the program before. If eligible, they were assigned a new client identification number and there was no official recognition of their prior participation in HAO files.

As would be expected, the number of such cases was small in the first months of operations, but by early 1976 the volume had increased in both sites. HAO staff recognized that processing work could be significantly reduced if they could use information from the reinstated household's old file in the enrollment process. Efficiencies in payment-accounting and other maintenance activities would be gained if the household could be reassigned its previous identification number.

Accordingly, the reinstatement process was implemented (specific processing rules are given in Katagiri and Kingsley, 1980, Chap. 15). Two types of reinstatement were allowed:

- Long-form (LF) reinstatement: where a complete reinstatement interview and housing evaluation were conducted prior to reinstatement.
- Short-form (SF) reinstatement: where the interview was handled as part of a regular recertification process, rather than as a separate "reinstatement" case. No separate housing evaluation was required.

The short-form was warranted when the participant had recently been terminated as part of a recertification process. For example, assume a household had just been terminated because it did not show up at its scheduled annual recertification interview and within a specified period of time made no effort to schedule another. Under the new reinstatement rules, if the client then called to reschedule shortly after the termination, the delayed annual recertification interview would be conducted and processed, accompanied by a short-form reinstatement.

Although the computer systems of both HAOs were modified uniformly to accept reinstatements as new types of transactions, the substantial reprogramming that would have been required to reflect reinstatements in all aspects of client accounting on management reports was judged not cost-effective and was not implemented. It is possible to use information from the systems, however, to account for essentials of reinstatement transactions as explained below.

CLIENT EPISODE ACCOUNTING: DIFFERENCES IN DEFINITIONS

In any program involving formal participation by members of the public, two client-accounting schemes are useful--one that keeps track of participants, and one that keeps track of transactions. The former records, for example, how many households ever enrolled in the program (a household is only counted once even if it drops out and joins again) and the latter records how many enrollments the administering agency performed (a new transaction is added each time a given household enrolls).

The latter approach can be termed "client episode accounting"; it keeps a separate record of each episode of participation. When one episode is terminated, the termination stays on the books; and if the household is reinstated, records for a new episode are initiated. Episode accounting is most valuable in administrative analysis because it more accurately reflects volumes of transaction, i.e., the work the agency has accomplished. Thus, to meet our purposes here, reinstatements need to be accounted for explicitly. Two changes to our original account definitions are required:

1. Long-form reinstatements represent additional workloads; thus we should add the applications received, the reenrollment transactions, and the payment authorizations for such cases to the comparable categories for initial enrollments.
2. Short-form reinstatements should be eliminated from our tables (workloads associated with them are counted already as part of the appropriate recertification process). Short-form terminations are really more like an extended suspension from

payments than a true termination from the program and should be treated as such. This means they should be ignored in workload counts and subtracted from counts of terminations.

CLIENT-ACCOUNTING TABLES: SOURCES AND DEFINITIONS

The tables in this appendix have two parts. The top portion of each provides data on the cumulative number of client episode transactions processed from the beginning of the program through a specified date. The bottom portion accounts for the status of all applicant episodes as of the same date; i.e., the numbers that were enrolled but later terminated, are still enrolled, or have not yet led to enrollment. Data sources for the cumulative counts are explained below (the HAO computer based data processing system is indicated as DPS).

- Applications submitted. Data on applications for initial enrollment (Item 1) come from regular DPS management reports. Applications for long-form reinstatements (Item 2) are manual counts; some missing values were estimated using relationships between applications and reinstatements for other periods.
- Screened out before initial enrollment. All items are from DPS management reports. (Similar accounts for reinstatements do not exist).
- Enrolled. Data on initial enrollments and total reinstatements are available in regular DPS management reports. The reinstatement totals were split according to each household's status in its prior enrollment episode (never paid vs. previous recipient) based on a special computer run prepared by the HAOs.
- Short-form reinstatement. Data are calculated by means of accounting identities based on DPS management reports. In each category, total reinstatements at any time equals the difference between the number ever terminated and the DPS count of those still terminated (not shown here). SF reinstatements equals total reinstatements minus LF reinstatements. While we do not count SF reinstatements as workload items, we provide this

series to permit reconciliation of our present and original account structures.

- Authorized for payment. The number of first authorizations is provided in regular DPS management reports; they include authorizations for clients in their first enrollment episodes and for reinstates who were never previously authorized for payment. Data on LF reinstates previously authorized were derived from a special computer run provided by the HAOs.
- Terminated. Data are from regular DPS management reports. They have not been adjusted to eliminate terminations preceding SF reinstatements.

Most of the status variables at the bottom of each table can be calculated from the cumulatives at the top. The number who applied but are not enrolled (Item 20) is, by definition, the difference between cumulative applications (Item 3) and cumulative enrollments (Item 10). Adjusted terminations (Items 24, 25, and 26) are cumulative terminations (Items 17, 18, and 19) minus SF reinstatements (Items 11, 12, and 13). The total currently enrolled (Item 23) is the difference between total applicants and the sum of the number applied but not enrolled and the number terminated; the "currently enrolled" series calculated in this way, checks exactly at each point with the comparable variable regularly reported by the DPS.

The number currently authorized for payment (Item 22) is derived directly from DPS reports. The remaining category (Item 21) is calculated as the difference between the number currently enrolled and the number currently authorized for payment. It includes enrollees and reinstates who have not yet met program housing requirements so they can become recipients, as well as recipients who have been temporarily suspended from payments because of some infraction of program rules (DPS records do not provide clear separate totals for these two groups because LF reinstatement cases pending payment authorization are misclassified as suspensions).

Table A.1

CLIENT ACCOUNTING BY YEAR
BROWN COUNTY HOUSING ALLOWANCE OFFICE

Item	Year 1	Year 2	Year 3	Year 4	Year 5
<i>Cumulative Cases Processed (as of end of year)</i>					
<u>Applications Submitted</u>					
1. Initial enrollment	5,893	9,640	12,020	14,330	16,602
2. LF reinstatement	--	85	458	948	1,504
3. Total	<u>5,893</u>	<u>9,725</u>	<u>12,478</u>	<u>15,278</u>	<u>18,106</u>
<u>Screened Out Before Initial Enrollment</u>					
4. Drop out before interview	1,104	2,199	3,126	3,843	4,603
5. Ineligible or drop out at interview	<u>1,181</u>	<u>1,759</u>	<u>2,124</u>	<u>2,392</u>	<u>2,669</u>
6. Total	<u>2,285</u>	<u>3,958</u>	<u>5,250</u>	<u>6,235</u>	<u>7,272</u>
<u>Enrolled</u>					
7. Initial enrollment	3,104	5,020	6,483	7,779	9,133
8. LF reinstatement, never paid	--	13	49	138	250
9. LF reinstatement, previous recipient	--	56	258	527	817
10. Total	<u>3,104</u>	<u>5,089</u>	<u>6,790</u>	<u>8,444</u>	<u>10,200</u>
<u>Short-Form Reinstatement</u>					
11. SF reinstatement, never paid	--	2	5	9	9
12. SF reinstatement, previous recipient	--	12	14	17	17
13. Total	--	<u>14</u>	<u>19</u>	<u>26</u>	<u>26</u>
<u>Authorized for Payment</u>					
14. First authorization	2,313	3,962	5,291	6,470	7,681
15. LF reinstatement, previous recipient	--	27	186	419	707
16. Total	<u>2,313</u>	<u>3,989</u>	<u>5,477</u>	<u>6,889</u>	<u>8,388</u>
<u>Terminated</u>					
17. Never paid	167	693	976	1,245	1,494
18. Previous recipient	<u>122</u>	<u>1,032</u>	<u>2,172</u>	<u>3,335</u>	<u>4,596</u>
19. Total	<u>289</u>	<u>1,725</u>	<u>3,148</u>	<u>4,580</u>	<u>6,090</u>
<i>Status of All Applicants (as of end of year)</i>					
<u>Applied But Not Enrolled</u>					
20. Screened out or awaiting eligibility certification	2,789	4,636	5,688	6,834	7,906
<u>Enrolled</u>					
21. Await housing certification or payments suspended	644	562	542	536	573
22. Authorized for payment	<u>2,171</u>	<u>2,816</u>	<u>3,119</u>	<u>3,354</u>	<u>3,563</u>
23. Total	<u>2,815</u>	<u>3,378</u>	<u>3,661</u>	<u>3,890</u>	<u>4,136</u>
<u>Terminated</u>					
24. Never paid	167	691	971	1,236	1,485
25. Previous recipient	<u>122</u>	<u>1,020</u>	<u>2,158</u>	<u>3,318</u>	<u>4,579</u>
26. Total	<u>289</u>	<u>1,711</u>	<u>3,129</u>	<u>4,554</u>	<u>6,064</u>
<u>Total Applicants</u>	<u>5,893</u>	<u>9,725</u>	<u>12,478</u>	<u>15,278</u>	<u>18,106</u>

SOURCE: HAO Management Information Reports for dates shown.

NOTE: See accompanying text for definition of variables. "LF" here and in subsequent tables = long form; "SF" = short form.

Table A.2

CLIENT ACCOUNTING BY QUARTER
BROWN COUNTY HOUSING ALLOWANCE OFFICE

Item	(1) Jul-Sep 1974	(2) Oct-Dec 1974	(3) Jan-Mar 1975	(4) Apr-Jun 1975	(5) Jul-Sep 1975
<i>Cumulative Cases Processed (as of end of period)</i>					
<u>Applications Submitted</u>					
1. Initial enrollment	1,153	3,023	4,840	5,893	7,004
2. LF reinstatement	--	--	--	--	--
3. Total	<u>1,153</u>	<u>3,023</u>	<u>4,840</u>	<u>5,893</u>	<u>7,004</u>
<u>Screened Out Before Initial Enrollment</u>					
4. Drop out before interview	102	471	963	1,104	1,352
5. Ineligible or drop out at interview	<u>120</u>	<u>450</u>	<u>914</u>	<u>1,181</u>	<u>1,366</u>
6. Total	<u>222</u>	<u>921</u>	<u>1,877</u>	<u>2,285</u>	<u>2,718</u>
<u>Enrolled</u>					
7. Initial enrollment	454	1,347	2,501	3,104	3,555
8. LF Reinstatement, never paid	--	--	--	--	--
9. LF Reinstatement, previous recipient	--	--	--	--	--
10. Total	<u>454</u>	<u>1,347</u>	<u>2,501</u>	<u>3,104</u>	<u>3,555</u>
<u>Short-Form Reinstatement</u>					
11. SF reinstatement, never paid	--	--	--	--	--
12. SF reinstatement, previous recipient	--	--	--	--	--
13. Total	--	--	--	--	--
<u>Authorized for Payment</u>					
14. First authorization	245	807	1,654	2,313	2,681
15. LF reinstatement, previous recipient	--	--	--	--	--
16. Total	<u>245</u>	<u>807</u>	<u>1,654</u>	<u>2,313</u>	<u>2,681</u>
<u>Terminated</u>					
17. Never paid	4	69	108	167	398
18. Previous recipient	--	6	29	122	379
19. Total	<u>4</u>	<u>75</u>	<u>137</u>	<u>289</u>	<u>777</u>
<i>Status of All Applicants (as of end of period)</i>					
<u>Applied But Not Enrolled</u>					
20. Screened out or awaiting eligibility certification	699	1,676	2,339	2,789	3,449
<u>Enrolled</u>					
21. Await housing certification or payments suspended	205	474	761	644	536
22. Authorized for payment	<u>245</u>	<u>798</u>	<u>1,603</u>	<u>2,171</u>	<u>2,242</u>
23. Total	<u>450</u>	<u>1,272</u>	<u>2,364</u>	<u>2,815</u>	<u>2,778</u>
<u>Terminated</u>					
24. Never paid	4	69	108	167	398
25. Previous recipient	--	6	29	122	379
26. Total	<u>4</u>	<u>75</u>	<u>137</u>	<u>289</u>	<u>777</u>
<u>Total Applicants</u>	<u>1,153</u>	<u>3,023</u>	<u>4,840</u>	<u>5,893</u>	<u>7,004</u>

SOURCE: HAO Management Information Reports for dates shown.

NOTE: See accompanying text for definition of variables.

Table A.2 (continued)
 CLIENT ACCOUNTING BY QUARTER
 BROWN COUNTY HOUSING ALLOWANCE OFFICE

Item	(6) Oct-Dec 1975	(7) Jan-Mar 1976	(8) Apr-Jun 1976	(9) Jul-Sep 1976	(10) Oct-Dec 1976
<i>Cumulative Cases Processed (as of end of period)</i>					
<u>Applications Submitted</u>					
1. Initial enrollment	7,754	8,579	9,640	10,434	11,034
2. LF reinstatement	—	—	85	168	274
3. Total	<u>7,754</u>	<u>8,579</u>	<u>9,725</u>	<u>10,602</u>	<u>11,308</u>
<u>Screened Out Before Initial Enrollment</u>					
4. Drop out before interview	1,629	1,853	2,199	2,512	2,759
5. Ineligible or drop out at interview	<u>1,516</u>	<u>1,610</u>	<u>1,759</u>	<u>1,864</u>	<u>1,992</u>
6. Total	<u>3,145</u>	<u>3,463</u>	<u>3,958</u>	<u>4,376</u>	<u>4,751</u>
<u>Enrolled</u>					
7. Initial enrollment	4,026	4,434	5,020	5,438	5,872
8. LF reinstatement, never paid	—	—	13	15	22
9. LF reinstatement, previous recipient	—	—	56	100	162
10. Total	<u>4,026</u>	<u>4,434</u>	<u>5,089</u>	<u>5,553</u>	<u>6,056</u>
<u>Short-Form Reinstatement</u>					
11. SF reinstatement, never paid	2	2	2	2	4
12. SF reinstatement, previous recipient	<u>11</u>	<u>12</u>	<u>12</u>	<u>12</u>	<u>13</u>
13. Total	<u>13</u>	<u>14</u>	<u>14</u>	<u>14</u>	<u>17</u>
<u>Authorized for Payment</u>					
14. First authorization	3,117	3,434	3,962	4,374	4,781
15. LF reinstatement, previous recipient	—	1	27	69	108
16. Total	<u>3,117</u>	<u>3,435</u>	<u>3,989</u>	<u>4,443</u>	<u>4,889</u>
<u>Terminated</u>					
17. Never paid	545	613	693	756	854
18. Previous recipient	<u>621</u>	<u>811</u>	<u>1,032</u>	<u>1,216</u>	<u>1,588</u>
19. Total	<u>1,166</u>	<u>1,424</u>	<u>1,725</u>	<u>1,972</u>	<u>2,442</u>
<i>Status of All Applicants (as of end of period)</i>					
<u>Applied But Not Enrolled</u>					
20. Screened out or awaiting eligibility certification	3,728	4,145	4,636	5,049	5,252
<u>Enrolled</u>					
21. Await housing certification or payments suspended	485	554	562	580	409
22. Authorized for payment	<u>2,388</u>	<u>2,470</u>	<u>2,816</u>	<u>3,015</u>	<u>3,222</u>
23. Total	<u>2,873</u>	<u>3,024</u>	<u>3,378</u>	<u>3,595</u>	<u>3,631</u>
<u>Terminated</u>					
24. Never paid	543	611	691	754	850
25. Previous recipient	<u>610</u>	<u>799</u>	<u>1,020</u>	<u>1,204</u>	<u>1,575</u>
26. Total	<u>1,153</u>	<u>1,410</u>	<u>1,711</u>	<u>1,958</u>	<u>2,425</u>
<u>Total Applicants</u>	<u>7,754</u>	<u>8,579</u>	<u>9,725</u>	<u>10,602</u>	<u>11,308</u>

SOURCE: HAO Management Information Reports for dates shown.
 NOTE: See accompanying text for definition of variables.

Table A.2 (continued)

CLIENT ACCOUNTING BY QUARTER
BROWN COUNTY HOUSING ALLOWANCE OFFICE

Item	(11) Jan-Mar 1977	(12) Apr-Jun 1977	(13) Jul-Sep 1977	(14) Oct-Dec 1977	(15) Jan-Mar 1978
<i>Cumulative Cases Processed (as of end of period)</i>					
<u>Applications Submitted</u>					
1. Initial enrollment	11,519	12,020	12,745	13,286	13,772
2. LF reinstatement	350	458	586	687	811
3. Total	<u>11,869</u>	<u>12,478</u>	<u>13,331</u>	<u>13,973</u>	<u>14,583</u>
<u>Screened Out Before Initial Enrollment</u>					
4. Drop out before interview	2,917	3,126	3,268	3,492	3,676
5. Ineligible or drop out at interview	<u>2,054</u>	<u>2,124</u>	<u>2,189</u>	<u>2,274</u>	<u>2,330</u>
6. Total	<u>4,971</u>	<u>5,250</u>	<u>5,457</u>	<u>5,766</u>	<u>6,006</u>
<u>Enrolled</u>					
7. Initial enrollment	6,159	6,483	6,782	7,158	7,472
8. LF reinstatement, never paid	33	49	73	95	113
9. LF reinstatement, previous recipient	<u>208</u>	<u>258</u>	<u>318</u>	<u>384</u>	<u>448</u>
10. Total	<u>6,400</u>	<u>6,790</u>	<u>7,173</u>	<u>7,637</u>	<u>8,033</u>
<u>Short-Form Reinstatement</u>					
11. SF reinstatement, never paid	5	5	8	8	8
12. SF reinstatement, previous recipient	<u>14</u>	<u>14</u>	<u>16</u>	<u>16</u>	<u>16</u>
13. Total	<u>19</u>	<u>19</u>	<u>24</u>	<u>24</u>	<u>24</u>
<u>Authorized for Payment</u>					
14. First authorization	5,042	5,291	5,562	5,874	6,182
15. LF reinstatement, previous recipient	<u>150</u>	<u>186</u>	<u>242</u>	<u>298</u>	<u>354</u>
16. Total	<u>5,192</u>	<u>5,477</u>	<u>5,804</u>	<u>6,172</u>	<u>6,536</u>
<u>Terminated</u>					
17. Never paid	927	976	1,043	1,107	1,178
18. Previous recipient	<u>1,885</u>	<u>2,172</u>	<u>2,479</u>	<u>2,793</u>	<u>3,052</u>
19. Total	<u>2,812</u>	<u>3,148</u>	<u>3,522</u>	<u>3,900</u>	<u>4,230</u>
<i>Status of All Applicants (as of end of period)</i>					
<u>Applied But Not Enrolled</u>					
20. Screened out or awaiting eligibility certification	5,469	5,688	6,158	6,336	6,550
<u>Enrolled</u>					
21. Await housing certification or payments suspended	414	542	527	509	466
22. Authorized for payment	<u>3,193</u>	<u>3,119</u>	<u>3,148</u>	<u>3,252</u>	<u>3,361</u>
23. Total	<u>3,607</u>	<u>3,661</u>	<u>3,675</u>	<u>3,761</u>	<u>3,827</u>
<u>Terminated</u>					
24. Never paid	922	971	1,035	1,099	1,170
25. Previous recipient	<u>1,871</u>	<u>2,158</u>	<u>2,463</u>	<u>2,777</u>	<u>3,036</u>
26. Total	<u>2,793</u>	<u>3,129</u>	<u>3,498</u>	<u>3,876</u>	<u>4,206</u>
<u>Total Applicants</u>	<u>11,869</u>	<u>12,478</u>	<u>13,331</u>	<u>13,973</u>	<u>14,583</u>

SOURCE: HAO Management Information reports for dates shown.
NOTE: See accompanying text for definition of variables.

Table A.2 (continued)

CLIENT ACCOUNTING BY QUARTER
BROWN COUNTY HOUSING ALLOWANCE OFFICE

Item	(16) Apr-Jun 1978	(17) Jul-Sep 1978	(18) Oct-Dec 1978	(19) Jan-Mar 1979	(20) Apr-Jun 1979
<i>Cumulative Cases Processed (as of end of period)</i>					
<u>Applications Submitted</u>					
1. Initial enrollment	14,330	14,908	15,454	16,067	16,602
2. LF reinstatement	948	1,076	1,202	1,353	1,504
3. Total	15,278	15,984	16,656	17,420	18,106
<u>Screened Out Before Initial Enrollment</u>					
4. Drop out before interview	3,843	4,031	4,302	4,463	4,603
5. Ineligible or drop out at interview	2,392	2,444	2,504	2,605	2,669
6. Total	6,235	6,475	6,806	7,068	7,272
<u>Enrolled</u>					
7. Initial enrollment	7,779	8,045	8,421	8,797	9,133
8. LF reinstatement, never paid	138	151	187	213	250
9. LF reinstatement, previous recipient	527	586	635	710	817
10. Total	8,444	8,782	9,243	9,720	10,200
<u>Short-Form Reinstatement</u>					
11. SF reinstatement, never paid	9	9	9	9	9
12. SF reinstatement, previous recipient	17	17	17	17	17
13. Total	26	26	26	26	26
<u>Authorized for Payment</u>					
14. First authorization	6,470	6,724	7,049	7,383	7,681
15. LF reinstatement, previous recipient	419	472	539	613	707
16. Total	6,889	7,196	7,588	7,996	8,388
<u>Terminated</u>					
17. Never paid	1,245	1,289	1,353	1,426	1,494
18. Previous recipient	3,335	3,618	3,945	4,252	4,596
19. Total	4,580	4,907	5,298	5,678	6,090
<i>Status of All Applicants (as of end of period)</i>					
<u>Applied But Not Enrolled</u>					
20. Screened out or awaiting eligibility certification	6,834	7,202	7,413	7,700	7,906
<u>Enrolled</u>					
21. Await housing certification or payments suspended	536	523	469	447	573
22. Authorized for payment	3,354	3,378	3,502	3,621	3,563
23. Total	3,890	3,901	3,971	4,068	4,136
<u>Terminated</u>					
24. Never paid	1,236	1,280	1,344	1,417	1,485
25. Previous recipient	3,318	3,601	3,928	4,235	4,579
26. Total	4,554	4,881	5,272	5,652	6,064
<u>Total Applicants</u>	15,278	15,984	16,656	17,420	18,106

SOURCE: HAO Management Information Reports for dates shown.
NOTE: See accompanying text for definition of variables.

Table A.3
 CLIENT ACCOUNTING BY YEAR
 ST. JOSEPH COUNTY HOUSING ALLOWANCE OFFICE

Item	Year 1	Year 2	Year 3	Year 4	Year 5
<i>Cumulative Cases Processed (as of end of year)</i>					
<u>Applications Submitted</u>					
1. Initial enrollment	10,053	18,284	24,212	29,538	36,707
2. LF reinstatement	--	576	1,464	2,639	4,491
3. Total	10,053	18,860	25,676	32,177	41,198
<u>Screened Out Before Initial Enrollment</u>					
4. Drop out before interview	2,085	5,083	6,446	8,837	10,765
5. Ineligible or drop out at interview	2,034	3,803	4,890	6,052	7,189
6. Total	4,119	8,886	11,336	14,889	17,954
<u>Enrolled</u>					
7. Initial enrollment	4,425	8,430	11,323	13,931	17,120
8. LF reinstatement, never paid	--	97	289	499	859
9. LF reinstatement, previous recipient	--	239	567	1,039	1,620
10. Total	4,425	8,766	12,179	15,469	19,599
<u>Short-Form Reinstatement</u>					
11. SF reinstatement, never paid	4	21	33	48	64
12. SF reinstatement, previous recipient	22	113	181	265	355
13. Total	26	134	214	313	419
<u>Authorized for Payment</u>					
14. First authorization	3,006	6,129	8,644	10,693	13,231
15. LF reinstatement, previous recipient	--	170	451	868	1,436
16. Total	3,006	6,299	9,095	11,561	14,667
<u>Terminated</u>					
17. Never paid	349	1,266	2,343	3,121	4,040
18. Previous recipient	226	1,620	3,463	5,753	8,022
19. Total	575	2,886	5,806	8,874	12,062
<i>Status of All Applicants (as of end of year)</i>					
<u>Applied But Not Enrolled</u>					
20. Screened out or awaiting eligibility certification	5,628	10,094	13,497	16,708	21,599
<u>Enrolled</u>					
21. Await housing certification or payments suspended	1,192	1,530	1,166	1,178	1,341
22. Authorized for payment	2,684	4,484	5,421	5,730	6,615
23. Total	3,876	6,014	6,587	6,908	7,956
<u>Terminated</u>					
24. Never paid	345	1,245	2,310	3,073	3,976
25. Previous recipient	204	1,507	3,282	5,488	7,667
26. Total	549	2,752	5,592	8,561	11,643
<u>Total Applicants</u>	10,053	18,860	25,676	32,177	41,198

SOURCE: HAO Management Information Reports for dates shown,
 NOTE: See accompanying text for definition of variables.

Table A.4

CLIENT ACCOUNTING BY QUARTER
ST. JOSEPH COUNTY HOUSING ALLOWANCE OFFICE

Item	(1) Apr-Jun 1975	(2) Jul-Sep 1975	(3) Oct-Dec 1975	(4) Jan-Mar 1976	(5) Apr-Jun 1976
<i>Cumulative Cases Processed (as of end of period)</i>					
<u>Applications Submitted</u>					
1. Initial enrollment	2,905	5,599	7,774	10,053	12,644
2. LF reinstatement	--	--	--	--	49
3. Total	<u>2,905</u>	<u>5,599</u>	<u>7,774</u>	<u>10,053</u>	<u>12,693</u>
<u>Screened Out Before Initial Enrollment</u>					
4. Drop out before interview	260	675	1,584	2,085	2,724
5. Ineligible or drop out at interview	<u>274</u>	<u>656</u>	<u>1,532</u>	<u>2,034</u>	<u>2,523</u>
6. Total	<u>534</u>	<u>1,331</u>	<u>3,116</u>	<u>4,119</u>	<u>5,247</u>
<u>Enrolled</u>					
7. Initial enrollment	738	2,080	3,460	4,425	5,436
8. LF reinstatement, never paid	--	--	--	--	4
9. LF reinstatement, previous recipient	--	--	--	--	29
10. Total	<u>738</u>	<u>2,080</u>	<u>3,460</u>	<u>4,425</u>	<u>5,469</u>
<u>Short-Form Reinstatement</u>					
11. SF reinstatement, never paid	--	--	--	4	5
12. SF reinstatement, previous recipient	--	--	--	22	25
13. Total	--	--	--	<u>26</u>	<u>30</u>
<u>Authorized for Payment</u>					
14. First authorization	349	1,061	2,097	3,006	3,794
15. LF reinstatement, previous recipient	--	--	--	--	9
16. Total	<u>349</u>	<u>1,061</u>	<u>2,097</u>	<u>3,006</u>	<u>3,803</u>
<u>Terminated</u>					
17. Never paid	8	34	82	349	604
18. Previous recipient	--	2	12	226	533
19. Total	<u>8</u>	<u>36</u>	<u>94</u>	<u>575</u>	<u>1,137</u>
<i>Status of All Applicants (as of end of period)</i>					
<u>Applied But Not Enrolled</u>					
20. Screened out or awaiting eligibility certification	2,167	3,519	4,314	5,628	7,224
<u>Enrolled</u>					
21. Await housing certification or payments suspended	386	1,023	1,651	1,192	1,208
22. Authorized for payment	<u>344</u>	<u>1,021</u>	<u>2,017</u>	<u>2,684</u>	<u>3,154</u>
23. Total	<u>730</u>	<u>2,044</u>	<u>3,668</u>	<u>3,876</u>	<u>4,362</u>
<u>Terminated</u>					
24. Never paid	8	34	82	345	599
25. Previous recipient	--	2	12	204	508
26. Total	<u>8</u>	<u>36</u>	<u>94</u>	<u>549</u>	<u>1,107</u>
<u>Total Applicants</u>	<u>2,905</u>	<u>5,599</u>	<u>7,774</u>	<u>10,053</u>	<u>12,693</u>

SOURCE: HAO Management Information Reports for dates shown.
NOTE: See accompanying text for definition of variables.

Table A.4 (continued)

CLIENT ACCOUNTING BY QUARTER
ST. JOSEPH COUNTY HOUSING ALLOWANCE OFFICE

Item	(6) Jul-Sep 1976	(7) Oct-Dec 1976	(8) Jan-Mar 1977	(9) Apr-Jun 1977	(10) Jul-Sep 1977
<i>Cumulative Cases Processed (as of end of period)</i>					
<u>Applications Submitted</u>					
1. Initial enrollment	14,432	16,143	18,284	19,770	21,943
2. LF reinstatement	191	392	576	718	934
3. Total	<u>14,623</u>	<u>16,535</u>	<u>18,860</u>	<u>20,488</u>	<u>22,877</u>
<u>Screened Out Before Initial Enrollment</u>					
4. Drop out before interview	3,469	4,206	5,083	5,587	5,788
5. Ineligible or drop out at interview	2,882	3,269	3,803	4,189	4,447
6. Total	<u>6,351</u>	<u>7,475</u>	<u>8,886</u>	<u>9,776</u>	<u>10,235</u>
<u>Enrolled</u>					
7. Initial enrollment	6,322	7,286	8,430	9,339	1,026
8. LF reinstatement, never paid	15	31	97	132	182
9. LF reinstatement, previous recipient	95	185	239	300	367
10. Total	<u>6,432</u>	<u>7,502</u>	<u>8,766</u>	<u>9,771</u>	<u>10,575</u>
<u>Short-Form Reinstatement</u>					
11. SF reinstatement, never paid	7	7	21	23	27
12. SF reinstatement, previous recipient	36	37	113	126	151
13. Total	<u>43</u>	<u>44</u>	<u>134</u>	<u>149</u>	<u>178</u>
<u>Authorized for Payment</u>					
14. First authorization	4,650	5,406	6,129	6,919	7,490
15. LF reinstatement, previous recipient	48	109	170	230	293
16. Total	<u>4,698</u>	<u>5,515</u>	<u>6,299</u>	<u>7,149</u>	<u>7,783</u>
<u>Terminated</u>					
17. Never paid	873	1,055	1,266	1,570	1,872
18. Previous recipient	899	1,207	1,620	2,059	2,541
19. Total	<u>1,772</u>	<u>2,262</u>	<u>2,886</u>	<u>3,629</u>	<u>4,413</u>
<i>Status of All Applicants (as of end of period)</i>					
<u>Applied But Not Enrolled</u>					
20. Screened out or awaiting eligibility certification	8,191	9,033	10,094	10,717	12,302
<u>Enrolled</u>					
21. Await housing certification or payments suspended	1,162	1,209	1,530	1,448	1,427
22. Authorized for payment	3,541	4,075	4,484	4,843	4,913
23. Total	<u>4,703</u>	<u>5,284</u>	<u>6,014</u>	<u>6,291</u>	<u>6,340</u>
<u>Terminated</u>					
24. Never paid	866	1,048	1,245	1,547	1,845
25. Previous recipient	863	1,170	1,507	1,933	2,390
26. Total	<u>1,729</u>	<u>2,218</u>	<u>2,752</u>	<u>3,480</u>	<u>4,235</u>
<u>Total Applicants</u>	<u>14,623</u>	<u>16,535</u>	<u>18,860</u>	<u>20,488</u>	<u>22,877</u>

SOURCE: HAO Management Information Reports for dates shown.

NOTE: See accompanying text for definition of variables.

Table A.4 (continued)

CLIENT ACCOUNTING BY QUARTER
ST. JOSEPH COUNTY HOUSING ALLOWANCE OFFICE

Item	(11) Oct-Dec 1977	(12) Jan-Mar 1978	(13) Apr-Jun 1978	(14) Jul-Sep 1978	(15) Oct-Dec 1978
<i>Cumulative Cases Processed (as of end of period)</i>					
<u>Applications Submitted</u>					
1. Initial enrollment	23,198	24,212	25,433	26,858	28,113
2. LF reinstatement	<u>1,238</u>	<u>1,464</u>	<u>1,698</u>	<u>1,996</u>	<u>2,326</u>
3. Total	<u>24,436</u>	<u>25,676</u>	<u>27,131</u>	<u>28,854</u>	<u>30,439</u>
<u>Screened Out Before Initial Enrollment</u>					
4. Drop out before interview	6,140	6,446	6,937	7,554	8,441
5. Ineligible or drop out at interview	<u>4,706</u>	<u>4,890</u>	<u>5,091</u>	<u>5,410</u>	<u>5,674</u>
6. Total	<u>10,846</u>	<u>11,336</u>	<u>12,028</u>	<u>12,964</u>	<u>14,115</u>
<u>Enrolled</u>					
7. Initial enrollment	10,850	11,323	11,853	12,508	13,181
8. LF reinstatement, never paid	253	289	317	364	426
9. LF reinstatement, previous recipient	<u>483</u>	<u>567</u>	<u>653</u>	<u>758</u>	<u>903</u>
10. Total	<u>11,586</u>	<u>12,179</u>	<u>12,823</u>	<u>13,630</u>	<u>14,510</u>
<u>Short-Form Reinstatement</u>					
11. SF reinstatement, never paid	30	33	38	41	44
12. SF reinstatement, previous recipient	<u>164</u>	<u>181</u>	<u>208</u>	<u>225</u>	<u>243</u>
13. Total	<u>194</u>	<u>214</u>	<u>246</u>	<u>266</u>	<u>287</u>
<u>Authorized for Payment</u>					
14. First authorization	8,215	8,644	9,050	9,541	10,103
15. LF reinstatement, previous recipient	<u>383</u>	<u>451</u>	<u>520</u>	<u>608</u>	<u>735</u>
16. Total	<u>8,598</u>	<u>9,095</u>	<u>9,570</u>	<u>10,149</u>	<u>10,838</u>
<u>Terminated</u>					
17. Never paid	2,123	2,343	2,552	2,732	2,914
18. Previous recipient	<u>3,006</u>	<u>3,463</u>	<u>4,050</u>	<u>4,625</u>	<u>5,242</u>
19. Total	<u>5,129</u>	<u>5,806</u>	<u>6,602</u>	<u>7,357</u>	<u>8,156</u>
<i>Status of All Applicants (as of end of period)</i>					
<u>Applied But Not Enrolled</u>					
20. Screened out for awaiting eligibility certification	12,850	13,497	14,308	15,224	15,929
<u>Enrolled</u>					
21. Await housing certification or payments suspended	1,314	1,166	1,197	1,214	1,134
22. Authorized for payment	<u>5,337</u>	<u>5,421</u>	<u>5,270</u>	<u>5,325</u>	<u>5,507</u>
23. Total	<u>6,651</u>	<u>6,587</u>	<u>6,467</u>	<u>6,539</u>	<u>6,641</u>
<u>Terminated</u>					
24. Never paid	2,093	2,310	2,514	2,691	2,870
25. Previous recipient	<u>2,842</u>	<u>3,282</u>	<u>3,842</u>	<u>4,400</u>	<u>4,999</u>
26. Total	<u>4,935</u>	<u>5,592</u>	<u>6,356</u>	<u>7,091</u>	<u>7,869</u>
<u>Total Applicants</u>	<u>24,436</u>	<u>25,676</u>	<u>27,131</u>	<u>28,854</u>	<u>30,439</u>

SOURCE: HAO Management Information Reports for dates shown.

NOTE: See accompanying text for definition of variables.

Table A.4 (continued)

CLIENT ACCOUNTING BY QUARTER
ST. JOSEPH COUNTY HOUSING ALLOWANCE OFFICE

Item	(16) Jan-Mar 1979	(17) Apr-Jun 1979	(18) Jul-Sep 1979	(19) Oct-Dec 1979	(20) Jan-Mar 1980
<i>Cumulative Cases Processed (as of end of period)</i>					
<u>Applications Submitted</u>					
1. Initial enrollment	29,538	31,123	32,611	34,474	36,707
2. LF reinstatement	<u>2,639</u>	<u>2,971</u>	<u>3,347</u>	<u>3,860</u>	<u>4,491</u>
3. Total	<u>32,177</u>	<u>34,094</u>	<u>35,958</u>	<u>38,334</u>	<u>41,198</u>
<u>Screened Out Before Initial Enrollment</u>					
4. Drop out before interview	8,837	9,060	9,523	10,019	10,765
5. Ineligible or drop out at interview	<u>6,052</u>	<u>6,336</u>	<u>6,600</u>	<u>6,861</u>	<u>7,189</u>
6. Total	<u>14,889</u>	<u>15,396</u>	<u>16,123</u>	<u>16,880</u>	<u>17,954</u>
<u>Enrolled</u>					
7. Initial enrollment	13,931	14,615	15,256	16,093	17,120
8. LF reinstatement, never paid	499	577	662	760	859
9. LF reinstatement, previous recipient	<u>1,039</u>	<u>1,112</u>	<u>1,238</u>	<u>1,418</u>	<u>1,620</u>
10. Total	<u>15,469</u>	<u>16,304</u>	<u>17,156</u>	<u>18,271</u>	<u>19,599</u>
<u>Short-Form Reinstatement</u>					
11. SF reinstatement, never paid	48	51	56	60	64
12. SF reinstatement, previous recipient	<u>265</u>	<u>283</u>	<u>313</u>	<u>333</u>	<u>355</u>
13. Total	<u>313</u>	<u>334</u>	<u>369</u>	<u>393</u>	<u>419</u>
<u>Authorized for Payment</u>					
14. First authorization	10,693	11,215	11,698	12,337	13,231
15. LF reinstatement, previous recipient	<u>868</u>	<u>975</u>	<u>1,068</u>	<u>1,218</u>	<u>1,436</u>
16. Total	<u>11,561</u>	<u>12,190</u>	<u>12,766</u>	<u>13,555</u>	<u>14,667</u>
<u>Terminated</u>					
17. Never paid	3,121	3,343	3,573	3,821	4,040
18. Previous recipient	<u>5,753</u>	<u>6,224</u>	<u>6,885</u>	<u>7,524</u>	<u>8,022</u>
19. Total	<u>8,874</u>	<u>9,567</u>	<u>10,458</u>	<u>11,345</u>	<u>12,062</u>
<i>Status of All Applicants (as of end of period)</i>					
<u>Applied But Not Enrolled</u>					
20. Screened out or awaiting eligibility certification	16,708	17,790	18,802	20,063	21,599
<u>Enrolled</u>					
21. Await housing certification or payments suspended	1,178	1,350	1,347	1,428	1,341
22. Authorized for payment	<u>5,730</u>	<u>5,721</u>	<u>5,720</u>	<u>5,891</u>	<u>6,615</u>
23. Total	<u>6,908</u>	<u>7,071</u>	<u>7,067</u>	<u>7,319</u>	<u>7,956</u>
<u>Terminated</u>					
24. Never paid	3,073	3,292	3,517	3,761	3,976
25. Previous recipient	5,488	5,941	6,572	7,191	7,667
26. Total	8,561	9,233	10,089	10,952	11,643
<u>Total Applicants</u>	<u>32,177</u>	<u>34,094</u>	<u>35,958</u>	<u>38,334</u>	<u>41,198</u>

SOURCE: HAO Management Information Reports for dates shown.

NOTE: See accompanying text for definition of variables.

Appendix B

ADMINISTRATIVE WORKLOADS

This appendix presents data on major workloads processed by the HAOs during the first five years of open enrollment in both sites. Tables B.1 and B.3 give totals for each of the five program-years. Tables B.2 and B.4 present data in the same structure by quarter.

INTAKE WORKLOADS

Intake workload cases processed during each period are shown in the top portion of each table. For each type of workload, we present data on long-form reinstatement cases as well as initial enrollment cases.

- Applications Submitted (I1). The number of application forms processed by the HAO data-processing system (DPS). Data reported here are fully consistent with the application cumulatives reported in Appendix A tables (Items 1, 2, and 3).
- Interview Conducted (I2). The number of initial enrollment and reinstatement interviews conducted, logged in as of the day they were conducted; from manual counts maintained by HAO staff.
- Enrolled (I3). The number of interview cases resulting in enrollment, counted as of the time of DPS processing. Data are consistent with the cumulatives reported in Appendix A tables (Items 7 through 10).
- Intake Verification (I4). The number of verification cases completed, from manual counts maintained by HAO staff.
- Intake Housing Evaluation (I5). The number of housing evaluations completed as processed by the DPS; includes evaluations of preenrollment units and units to which the enrollee is considering moving, and reevaluations of units that failed a previous evaluation.
- New Recipients Authorized (I6). The number of payment authorizations processed by the DPS for initial enrollees and LF reinstatement cases never previously authorized for payment; and

for LF reinstates who had been recipients before. Data are consistent with cumulatives reported in Appendix A tables (Items 14, 15, and 16).

MAINTENANCE WORKLOADS

The bottom portion of each table contains data on HAO maintenance workloads, again combining data from the DPS and other HAO reporting systems.

- Payments Operations. The number of recipient-months during the period (M1) is an official count reported to HUD monthly during the experimental period (HUD Form 533). The count includes the number of households receiving payments over the full month plus pro-rata shares for those receiving payment during part of the month; e.g., if a household was first authorized for payment on June 15, it would receive a check for half of its regular monthly allowance entitlement and in June be counted as 0.5 recipient-months. The number of recipient-years (M2) is simply the number of recipient-months divided by 12.
- Semiannual Recertification. The number of semiannual recertifications (SAR) initiated (M3) is a DPS count of the number of participants who were sent semiannual recertification forms due to be returned during the period. The number of SARs verified (M4) is a manual count of cases completed. The number of SARs processed (M5) is a DPS count including eligible cases only.
- Annual Recertification. The number of annual recertifications (AR) initiated (M6) is a DPS count of the number of households due for a recertification interview during the period. AR interviews conducted (M7) is a manual count taken as of the day of the interview; all cases are included regardless of the results of the eligibility determination. AR verifications (M8) is a manual count of the number of verification cases completed. The number of ARS processed (M9) comes from DPS reports; again, only eligible cases are counted.

- Special Recertification. The number of special recertifications (SR) verified (M10) is a manual count. The number of SRs processed (M11) is a DPS count including eligible cases only.
- Maintenance Housing Evaluations (M12). All evaluations conducted for recipients, including regular annual housing evaluations, evaluations of units to which the recipient is considering moving (or has moved), and reevaluations of units that failed previous evaluations. The count is taken as cases are processed by the DPS.

RELATION TO PREVIOUS ANALYSIS

While the experiment was under way, the HAOs prepared monthly reports containing data on all items discussed above. In preparing the tables in this appendix, those reports, and the DPS outputs for the same dates, were our primary sources. Several of the monthly reports, however, contained errors when they were published. Here, we have taken a number of steps to correct such errors; thus, these tables should be regarded as the "official" workload counts for the allowance programs during the experimental period.

Definitions and data for our earlier analysis of April-December 1976 workloads (Kingsley and Schlegel, 1979) are consistent with this appendix, with the following exceptions:

1. At the time of the earlier study, we did not have a satisfactory count of reinstatement transactions, so they were not included in workloads; since reinstatement volumes were still quite small in 1976, the distortion was not significant.
2. In the earlier study, we used an additional intake workload measure: the number of HAO "contracts" made by potential applications for initial enrollment. This told us the number of callers who decided not to apply as well as the number who applied. The HAO did not collect data on reinstatement contacts, however, so in this analysis where reinstatement workloads of all types have to be accounted for, the variable

could not be included.

3. Some workload-count errors in the previous analysis were discovered and have been corrected.
4. The accounting periods for HAO workload data run from the last Friday of one month through the last Friday of the next. In the earlier analysis, we adjusted workload data to fit calendar months precisely, thus matching the accounting periods for expenditure data. Here we have not bothered with the adjustment, since its effect was negligible in our calculations.

Because of these differences (and others affecting costs as explained in Appendix D), workloads and cost ratios reported here for April-December 1976 do not precisely match those published in Fourth Annual Report, 1978; Kingsley, 1979; and Kingsley and Schlegel, 1979. All resulting differences are small, however; conclusions drawn in the earlier studies are not affected.

Table B.1

ADMINISTRATIVE WORKLOADS BY YEAR
BROWN COUNTY HOUSING ALLOWANCE OFFICE

Item	Year 1	Year 2	Year 3	Year 4	Year 5
<i>Intake Workloads (Cases Processed)</i>					
<u>Applications Submitted (I1)</u>					
Initial enrollment	5,893	3,747	2,380	2,310	2,272
Reinstatement	—	85	373	490	556
Total	5,893	3,832	2,753	2,800	2,828
<u>Interview Conducted (I2)</u>					
Initial enrollment	4,326	2,687	1,750	1,577	1,567
Reinstatement	—	76	286	394	378
Total	4,326	2,763	2,036	1,971	1,945
<u>Enrolled (I3)</u>					
Initial enrollment	3,104	1,916	1,463	1,296	1,354
Reinstatement	—	69	238	358	402
Total	3,104	1,985	1,701	1,654	1,756
<u>Intake Verification (I4)</u>					
Initial enrollment	442	1,132	819	565	498
Reinstatement	—	19	145	152	160
Total	442	1,151	964	717	658
<u>Intake Housing Evaluation (I5)</u>					
Initial enrollment	4,285	2,947	2,414	2,688	2,753
Reinstatement	—	—	286	437	471
Total	4,285	2,947	2,700	3,125	3,224
<u>New Recipients Authorized (I6)</u>					
First authorization	2,313	1,649	1,329	1,179	1,211
Previously authorized	—	27	159	233	288
Total	2,313	1,676	1,488	1,412	1,499
<i>Maintenance Workloads (Cases Processed)</i>					
<u>Payments Operations</u>					
Recipient months (M1)	11,271	29,910	38,409	40,148	43,198
Recipient year (M2)	939	2,493	3,201	3,346	3,600
<u>Semiannual Recertification</u>					
SAR initiated (M3)	1,098	3,933	3,658	4,010	4,282
SAR verified (M4)	—	197	216	163	426
SAR processed (M5)	1,050	3,012	3,276	3,470	3,660
<u>Annual Recertification</u>					
AR initiated (M6)	137	2,234	2,966	3,217	3,408
AR interview conducted (M7)	120	2,011	2,447	3,181	2,834
AR verified (M8)	—	1,223	1,555	1,018	726
AR processed (M9)	122	1,926	2,360	2,723	2,956
<u>Special Recertification</u>					
SR verified (M10)	—	78	225	150	197
SR processed (M11)	—	258	429	412	556
<u>Maintenance Housing Evaluations (M12)</u>	59	2,578	3,069	3,429	3,208

SOURCE: HAO Management Information Reports for dates shown.
NOTE: See accompanying text for definition of variables.

Table B.2

ADMINISTRATIVE WORKLOADS BY QUARTER
BROWN COUNTY HOUSING ALLOWANCE OFFICE

Item	(1) Jul-Sep 1974	(2) Oct-Dec 1974	(3) Jan-Mar 1975	(4) Apr-Jun 1975	(5) Jul-Sep 1975
<i>Intake Workloads (Cases Processed)</i>					
<u>Applications Submitted (I1)</u>					
Initial enrollment	1,153	1,870	1,817	1,053	1,111
Reinstatement	—	—	—	—	—
Total	1,153	1,870	1,817	1,053	1,111
<u>Interview Conducted (I2)</u>					
Initial enrollment	386	1,520	1,572	848	719
Reinstatement	—	—	—	—	—
Total	386	1,520	1,572	848	719
<u>Enrolled (I3)</u>					
Initial enrollment	454	893	1,154	603	451
Reinstatement	—	—	—	—	—
Total	454	893	1,154	603	451
<u>Intake Verification (I4)</u>					
Initial enrollment	—	—	—	442	281
Reinstatement	—	—	—	—	—
Total	—	—	—	442	281
<u>Intake Housing Evaluation (I5)</u>					
Initial enrollment	575	1,116	1,469	1,125	831
Reinstatement	—	—	—	—	—
Total	575	1,116	1,469	1,125	831
<u>New Recipients Authorized (I6)</u>					
First authorization	245	562	847	659	368
Previously authorized	—	—	—	—	—
Total	245	562	847	659	368
<i>Maintenance Workloads (Cases Processed)</i>					
<u>Payments Operations</u>					
Recipient months (M1)	307	1,509	3,536	5,919	6,902
Recipient years (M2)	26	126	295	493	575
<u>Semiannual Recertification</u>					
SAR initiated (M3)	—	—	—	1,098	1,388
SAR verified (M4)	—	—	—	—	—
SAR processed (M5)	—	—	—	1,050	1,078
<u>Annual Recertification</u>					
AR initiated (M6)	—	—	—	137	520
AR interview conducted (M7)	—	—	—	120	456
AR verified (M8)	—	—	—	—	198
AR processed (M9)	—	—	—	122	384
<u>Special Recertification</u>					
SR verified (M10)	—	—	—	—	—
SR processed (M11)	—	—	—	—	—
<u>Maintenance Housing Evaluations (M12)</u>					
	—	—	—	59	604

SOURCE: HAO Management Information Reports for dates shown.

NOTE: See accompanying text for definition of variables.

Table B.2 (continued)
 ADMINISTRATIVE WORKLOADS BY QUARTER
 BROWN COUNTY HOUSING ALLOWANCE OFFICE

Item	(6) Oct-Dec 1975	(7) Jan-Mar 1976	(8) Apr-Jun 1976	(9) Jul-Sep 1976	(10) Oct-Dec 1976
<i>Intake Workloads (Cases Processed)</i>					
<u>Applications Submitted (I1)</u>					
Initial enrollment	750	825	1,061	794	600
Reinstatement	--	--	85	83	106
Total	750	825	1,146	877	706
<u>Interview Conducted (I2)</u>					
Initial enrollment	599	531	838	480	527
Reinstatement	--	--	76	62	79
Total	599	531	914	542	606
<u>Enrolled (I3)</u>					
Initial enrollment	471	408	586	418	434
Reinstatement	--	--	69	46	69
Total	471	408	655	464	503
<u>Intake Verification (I4)</u>					
Initial enrollment	262	261	328	238	321
Reinstatement	--	--	19	40	36
Total	262	261	347	278	357
<u>Intake Housing Evaluation (I5)</u>					
Initial enrollment	653	555	908	620	675
Reinstatement	--	--	--	40	81
Total	653	555	908	660	756
<u>New Recipients Authorized (I6)</u>					
First authorization	436	317	528	412	407
Previously authorized	--	1	26	42	39
Total	436	318	554	454	446
<i>Maintenance Workloads (Cases Processed)</i>					
<u>Payments Operations</u>					
Recipient months (M1)	7,209	7,605	8,194	9,116	9,581
Recipient years (M2)	601	634	683	760	798
<u>Semiannual Recertification</u>					
SAR initiated (M3)	632	945	968	970	983
SAR verified (M4)	60	79	58	65	72
SAR processed (M5)	453	712	769	775	949
<u>Annual Recertification</u>					
AR initiated (M6)	656	696	362	644	743
AR interview conducted (M7)	613	573	369	600	693
AR verified (M8)	247	498	280	342	348
AR processed (M9)	514	609	419	467	683
<u>Special Recertification</u>					
SR verified (M10)	--	28	50	29	103
SR processed (M11)	84	87	87	101	122
<u>Maintenance Housing Evaluations (M12)</u>	708	683	583	651	831

SOURCE: HAO Management Information Reports for dates shown.
 NOTE: See accompanying text for definition of variables.

Table B.2 (continued)

ADMINISTRATIVE WORKLOADS BY QUARTER
BROWN COUNTY HOUSING ALLOWANCE OFFICE

Item	(11) Jan-Mar 1977	(12) Apr-Jun 1977	(13) Jul-Sep 1977	(14) Oct-Dec 1977	(15) Jan-Mar 1978
<i>Intake Workloads (Cases Processed)</i>					
<u>Applications Submitted (I1)</u>					
Initial enrollment	485	501	725	541	486
Reinstatement	76	108	128	101	124
Total	561	609	853	642	610
<u>Interview Conducted (I2)</u>					
Initial enrollment	337	406	380	454	372
Reinstatement	56	89	83	92	99
Total	393	495	463	546	471
<u>Enrolled (I3)</u>					
Initial enrollment	287	324	299	376	314
Reinstatement	57	66	84	88	82
Total	344	390	383	464	396
<u>Intake verification (I4)</u>					
Initial enrollment	165	95	167	93	180
Reinstatement	47	22	39	47	29
Total	212	117	206	140	209
<u>Intake Housing Evaluation (I5)</u>					
Initial enrollment	519	600	690	650	713
Reinstatement	80	85	110	109	107
Total	599	685	800	759	820
<u>New Recipients Authorized (I6)</u>					
First authorization	261	249	271	312	308
Previously authorized	42	36	56	56	56
Total	303	285	327	368	364
<i>Maintenance Workloads (Cases Processed)</i>					
<u>Payments Operations</u>					
Recipient months (M1)	9,948	9,764	9,667	9,840	10,181
Recipient years (M2)	829	814	806	820	848
<u>Semiannual Recertification</u>					
SAR initiated (M3)	1,066	639	954	937	1,117
SAR verified (M4)	46	33	53	39	4
SAR processed (M5)	825	727	962	680	1,069
<u>Annual Recertification</u>					
AR initiated (M6)	806	773	863	787	785
AR interview conducted (M7)	678	476	818	891	708
AR verified (M8)	552	313	286	293	285
AR processed (M9)	584	626	664	700	718
<u>Special Recertification</u>					
SR verified (M10)	52	41	48	4	62
SR processed (M11)	111	95	84	92	127
<u>Maintenance Housing Evaluations (M12)</u>					
	789	798	879	897	744

SOURCE: HAO Management Information Reports for dates shown.
NOTE: See accompanying text for definition of variables.

Table B.2 (continued)

ADMINISTRATIVE WORKLOADS BY QUARTER
BROWN COUNTY HOUSING ALLOWANCE OFFICE

Item	(16) Apr-Jun 1978	(17) Jul-Sep 1978	(18) Oct-Dec 1978	(19) Jan-Mar 1979	(20) Apr-Jun 1979
<i>Intake Workloads (Cases Processed)</i>					
<u>Applications Submitted (I1)</u>					
Initial enrollment	558	578	546	613	535
Reinstatement	137	128	126	151	151
Total	695	706	672	764	686
<u>Interview Conducted (I2)</u>					
Initial enrollment	371	246	446	472	403
Reinstatement	120	89	47	116	126
Total	491	335	493	588	529
<u>Enrolled (I3)</u>					
Initial enrollment	307	266	376	376	336
Reinstatement	104	72	85	101	144
Total	411	338	461	477	480
<u>Intake Verification (I4)</u>					
Initial enrollment	125	4	159	190	145
Reinstatement	37	3	59	50	48
Total	162	7	218	240	193
<u>Intake Housing Evaluation (I5)</u>					
Initial enrollment	635	683	725	652	693
Reinstatement	111	106	111	114	140
Total	746	789	836	766	833
<u>New Recipients Authorized (I6)</u>					
First authorization	288	254	325	334	298
Previously authorized	65	53	67	74	94
Total	353	307	392	408	392
<i>Maintenance Workloads (Cases Processed)</i>					
<u>Payments Operations</u>					
Recipient months (M1)	10,460	10,519	10,612	10,937	11,130
Recipient years (M2)	872	877	884	911	928
<u>Semiannual Recertification</u>					
SAR initiated (M3)	1,002	1,028	1,018	1,162	1,074
SAR verified (M4)	67	53	137	137	99
SAR processed (M5)	759	923	793	884	1,060
<u>Annual Recertification</u>					
AR initiated (M6)	782	947	824	827	810
AR interview conducted (M7)	764	779	697	691	667
AR verified (M8)	154	125	314	155	132
AR processed (M9)	641	740	749	684	783
<u>Special Recertification</u>					
SR verified (M10)	36	1	114	59	23
SR processed (M11)	109	129	128	152	147
<u>Maintenance Housing Evaluations (M12)</u>	909	850	748	719	891

SOURCE: HAO Management Information Reports for dates shown.

NOTE: See accompanying text for definition of variables.

Table B.3

ADMINISTRATIVE WORKLOADS BY YEAR
ST. JOSEPH COUNTY HOUSING ALLOWANCE OFFICE

Item	Year 1	Year 2	Year 3	Year 4	Year 5
<i>Intake Workloads (Cases Processed)</i>					
<u>Applications Submitted (I1)</u>					
Initial enrollment	10,053	8,231	5,928	5,326	7,169
Reinstatement	--	576	888	1,175	1,852
Total	10,053	8,807	6,816	6,501	9,021
<u>Interview Conducted (I2)</u>					
Initial enrollment	7,219	5,786	4,027	3,736	4,700
Reinstatement	--	413	637	844	1,329
Total	7,219	6,199	4,664	4,580	6,029
<u>Enrolled (I3)</u>					
Initial enrollment	4,425	4,005	2,893	2,608	3,189
Reinstatement	--	336	520	682	941
Total	4,425	4,341	3,413	3,290	4,130
<u>Intake Verification (I4)</u>					
Initial enrollment	2,474	1,057	1,045	1,203	1,578
Reinstatement	--	95	237	281	462
Total	2,474	1,152	1,282	1,484	2,040
<u>Intake Housing Evaluation (I5)</u>					
Initial enrollment	6,398	5,739	5,117	3,980	4,737
Reinstatement	--	302	601	711	1,069
Total	6,398	6,041	5,718	4,691	5,806
<u>New Recipients Authorized (I6)</u>					
First authorization	3,006	3,123	2,515	2,049	2,538
Previously authorized	--	170	281	417	568
Total	3,006	3,293	2,796	2,466	3,106
<i>Maintenance Workloads (Cases Processed)</i>					
<u>Payments Operations</u>					
Recipient months (M1)	15,052	45,367	62,779	68,066	74,134
Recipient years (M2)	1,254	3,781	5,232	5,672	6,178
<u>Semiannual Recertification</u>					
SAR initiated (M3)	2,842	5,500	7,381	7,362	8,047
SAR verified (M4)	181	187	114	350	664
SAR processed (M5)	2,162	4,376	5,928	5,922	5,825
<u>Annual Recertification</u>					
AR initiated (M6)	303	3,497	5,211	5,560	5,903
AR interview conducted (M7)	239	2,924	4,497	4,774	5,009
AR verified (M8)	47	621	1,509	1,387	1,622
AR processed (M9)	80	2,522	4,290	4,520	4,717
<u>Special Recertification</u>					
SR verified (M10)	188	421	571	300	238
SR processed (M11)	391	790	709	692	760
<u>Maintenance Housing Evaluations (M12)</u>	169	3,127	5,465	6,120	6,902

SOURCE: HAO Management Information Reports for dates shown.
NOTE: See accompanying text for definition of variables.

Table B.4

ADMINISTRATIVE WORKLOADS BY QUARTER
ST. JOSEPH COUNTY HOUSING ALLOWANCE OFFICE

Item	(1) Apr-Jun 1975	(2) Jul-Sep 1975	(3) Oct-Dec 1975	(4) Jan-Mar 1976	(5) Apr-Jun 1976
<i>Intake Workloads (Cases Processed)</i>					
<u>Applications Submitted (I1)</u>					
Initial enrollment	2,905	2,694	2,175	2,279	2,591
Reinstatement	--	--	--	--	49
Total	<u>2,905</u>	<u>2,694</u>	<u>2,175</u>	<u>2,279</u>	<u>2,640</u>
<u>Interview Conducted (I2)</u>					
Initial enrollment	1,187	2,342	2,099	1,591	1,592
Reinstatement	--	--	--	--	35
Total	<u>1,187</u>	<u>2,342</u>	<u>2,099</u>	<u>1,591</u>	<u>1,627</u>
<u>Enrolled (I3)</u>					
Initial enrollment	738	1,342	1,380	965	1,011
Reinstatement	--	--	--	--	33
Total	<u>738</u>	<u>1,342</u>	<u>1,380</u>	<u>965</u>	<u>1,044</u>
<u>Intake Verification (I4)</u>					
Initial enrollment	186	334	773	1,181	260
Reinstatement	--	--	--	--	8
Total	<u>186</u>	<u>334</u>	<u>773</u>	<u>1,181</u>	<u>268</u>
<u>Intake Housing Evaluation (I5)</u>					
Initial enrollment	905	1,757	2,108	1,628	1,595
Reinstatement	--	--	--	--	--
Total	<u>905</u>	<u>1,757</u>	<u>2,108</u>	<u>1,628</u>	<u>1,595</u>
<u>New Recipients Authorized (I6)</u>					
First authorization	349	712	1,036	909	788
Previously authorized	--	--	--	--	9
Total	<u>349</u>	<u>712</u>	<u>1,036</u>	<u>909</u>	<u>797</u>
<i>Maintenance Workloads (Cases Processed)</i>					
<u>Payments Operations</u>					
Recipient months (M1)	495	2,050	4,909	7,598	9,262
Recipient years (M2)	41	171	409	633	772
<u>Semiannual Recertification</u>					
SAR initiated (M3)	--	356	988	1,498	1,098
SAR verified (M4)	--	--	--	181	63
SAR processed (M5)	--	1	307	1,854	931
<u>Annual Recertification</u>					
AR initiated (M6)	--	--	2	301	760
AR interview conducted (M7)	--	--	5	234	545
AR verified (M8)	--	--	--	47	64
AR processed (M9)	--	--	--	80	475
<u>Special Recertification</u>					
SR verified (M10)	--	--	--	188	66
SR processed (M11)	--	48	97	246	177
<u>Maintenance Housing Evaluations (M12)</u>	--	7	17	145	589

SOURCE: HAO Management Information Reports for dates shown.
NOTE: See accompanying text for definition of variables.

Table B.4 (continued)
 ADMINISTRATIVE WORKLOADS BY QUARTER
 ST. JOSEPH COUNTY HOUSING ALLOWANCE OFFICE

Item	(6) Jul-Sep 1976	(7) Oct-Dec 1976	(8) Jan-Mar 1977	(9) Apr-Jun 1977	(10) Jul-Sep 1977
<i>Intake Workloads (Cases Processed)</i>					
<u>Applications Submitted (I1)</u>					
Initial enrollment	1,788	1,711	2,141	1,486	2,173
Reinstatement	142	201	184	142	216
Total	1,930	1,912	2,325	1,628	2,389
<u>Interview Conducted (I2)</u>					
Initial enrollment	1,185	1,350	1,659	1,277	1,042
Reinstatement	102	144	132	102	155
Total	1,287	1,494	1,791	1,379	1,197
<u>Enrolled (I3)</u>					
Initial enrollment	886	964	1,144	909	687
Reinstatement	77	106	120	96	117
Total	963	1,070	1,264	1,005	804
<u>Intake Verification (I4)</u>					
Initial enrollment	201	239	357	343	209
Reinstatement	1	43	43	55	58
Total	202	282	400	398	267
<u>Intake Housing Evaluation (I5)</u>					
Initial enrollment	1,227	1,407	1,510	1,623	1,280
Reinstatement	76	100	126	115	118
Total	1,303	1,507	1,636	1,738	1,398
<u>New Recipients Authorized (I6)</u>					
First authorization	856	756	723	790	571
Previously authorized	39	61	61	60	63
Total	895	817	784	850	634
<i>Maintenance Workloads (Cases Processed)</i>					
<u>Payments Operations</u>					
Recipient months (M1)	10,674	12,094	13,337	14,622	15,401
Recipient years (M2)	890	1,008	1,111	1,219	1,283
<u>Semiannual Recertification</u>					
SAR initiated (M3)	1,159	1,564	1,679	1,654	1,922
SAR verified (M4)	34	41	49	52	33
SAR processed (M5)	792	1,551	1,102	1,191	1,636
<u>Annual Recertification</u>					
AR initiated (M6)	1,093	736	908	1,273	1,329
AR interview conducted (M7)	892	648	839	1,121	1,177
AR verified (M8)	96	254	207	344	400
AR processed (M9)	859	861	327	961	1,290
<u>Special Recertification</u>					
SR verified (M10)	26	121	208	148	166
SR processed (M11)	153	200	260	172	195
<u>Maintenance Housing Evaluation (M12)</u>	743	951	844	1,298	1,537

SOURCE: HAO Management Information Reports for dates shown.
 NOTE: See accompanying text for definition of variables.

Table B.4 (continued)

ADMINISTRATIVE WORKLOADS BY QUARTER
ST. JOSEPH COUNTY HOUSING ALLOWANCE OFFICE

Item	(11) Oct-Dec 1977	(12) Jan-Mar 1978	(13) Apr-Jun 1978	(14) Jul-Sep 1978	(15) Oct-Dec 1978
<i>Intake Workloads (Cases Processed)</i>					
<u>Applications Submitted (I1)</u>					
Initial enrollment	1,255	1,014	1,221	1,425	1,255
Reinstatement	304	226	234	298	330
Total	1,559	1,240	1,455	1,723	1,585
<u>Interview Conducted (I2)</u>					
Initial enrollment	972	736	730	927	1,062
Reinstatement	218	162	168	214	237
Total	1,190	898	898	1,141	1,299
<u>Enrolled (I3)</u>					
Initial enrollment	824	473	530	655	673
Reinstatement	187	120	114	152	207
Total	1,011	593	644	807	880
<u>Intake Verification (I4)</u>					
Initial enrollment	277	216	235	246	347
Reinstatement	68	56	53	50	88
Total	345	272	288	296	435
<u>Intake Housing Evaluation (I5)</u>					
Initial enrollment	1,249	965	812	1,043	990
Reinstatement	202	166	116	158	169
Total	1,451	1,131	928	1,201	1,159
<u>New Recipients Authorized (I6)</u>					
First authorization	725	429	406	491	562
Previously authorized	90	68	69	88	127
Total	815	497	475	579	689
<i>Maintenance Workloads (Cases Processed)</i>					
<u>Payments Operations</u>					
Recipient months (M1)	16,130	16,626	17,070	16,505	17,077
Recipient years (M2)	1,344	1,386	1,423	1,375	1,423
<u>Semiannual Recertification</u>					
SAR initiated (M3)	1,865	1,940	1,589	1,799	1,882
SAR verified (M4)	17	12	69	77	86
SAR processed (M5)	1,327	1,774	1,407	1,382	1,418
<u>Annual Recertification</u>					
AR initiated (M6)	1,121	1,488	1,478	1,564	1,131
AR interview conducted (M7)	897	1,302	1,278	1,365	985
AR verified (M8)	386	379	556	230	327
AR processed (M9)	726	1,313	1,201	1,302	916
<u>Special Recertification</u>					
SR verified (M10)	126	131	44	55	94
SR processed (M11)	167	175	153	141	203
<u>Maintenance Housing Evaluations (M12)</u>					
	1,233	1,397	1,865	1,663	1,249

SOURCE: HAO Management Information Reports for dates shown.

NOTE: See accompanying text for definition of variables.

Table B.4 (continued)

ADMINISTRATIVE WORKLOADS BY QUARTER
ST. JOSEPH COUNTY HOUSING ALLOWANCE OFFICE

Item	(16) Jan-Mar 1979	(17) Apr-Jun 1979	(18) Jul-Sep 1979	(19) Oct-Dec 1979	(20) Jan-Mar 1980
<i>Intake Workloads (Cases Processed)</i>					
<u>Applications Submitted (I1)</u>					
Initial enrollment	1,425	1,585	1,488	1,863	2,233
Reinstatement	313	332	376	513	631
Total	<u>1,738</u>	<u>1,917</u>	<u>1,864</u>	<u>2,376</u>	<u>2,864</u>
<u>Interview Conducted (I2)</u>					
Initial enrollment	1,017	1,032	894	1,171	1,603
Reinstatement	225	238	270	368	453
Total	<u>1,242</u>	<u>1,270</u>	<u>1,164</u>	<u>1,539</u>	<u>2,056</u>
<u>Enrolled (I3)</u>					
Initial enrollment	750	684	641	837	1,027
Reinstatement	209	151	211	278	301
Total	<u>959</u>	<u>835</u>	<u>852</u>	<u>1,115</u>	<u>1,328</u>
<u>Intake Verification (I4)</u>					
Initial enrollment	375	380	390	410	398
Reinstatement	90	66	98	153	145
Total	<u>465</u>	<u>446</u>	<u>488</u>	<u>563</u>	<u>543</u>
<u>Intake Housing Evaluation (I5)</u>					
Initial enrollment	1,135	987	1,024	1,251	1,475
Reinstatement	268	200	222	317	330
Total	<u>1,403</u>	<u>1,187</u>	<u>1,246</u>	<u>1,568</u>	<u>1,805</u>
<u>New Recipients Authorized (I6)</u>					
First authorization	590	522	483	639	894
Previously authorized	133	107	93	150	218
Total	<u>723</u>	<u>629</u>	<u>576</u>	<u>789</u>	<u>1,112</u>
<i>Maintenance Workloads (Cases Processed)</i>					
<u>Payments Operations</u>					
Recipient months (M1)	17,414	18,173	18,207	18,219	19,535
Recipient years (M2)	1,451	1,514	1,517	1,518	1,628
<u>Semiannual Recertification</u>					
SAR initiated (M3)	2,092	1,754	2,003	2,053	2,237
SAR verified (M4)	118	169	153	165	177
SAR processed (M5)	1,715	1,013	1,470	1,624	1,718
<u>Annual Recertification</u>					
AR initiated (M6)	1,387	1,463	1,605	1,352	1,483
AR interview conducted (M7)	1,146	1,328	1,370	971	1,340
AR verified (M8)	274	362	463	447	350
AR processed (M9)	1,101	1,163	1,299	1,062	1,193
<u>Special Recertification</u>					
SR verified (M10)	107	59	47	76	56
SR processed (M11)	195	169	146	218	227
<u>Maintenance Housing Evaluations (M12)</u>					
	1,343	1,860	1,765	1,496	1,781

SOURCE: HAO Management Information Reports for dates shown.

NOTE: See accompanying text for definition of variables.

Appendix C

PROGRAM EXPENDITURES AND STAFFING

In this appendix, we present complete data on HAO expenditures (in current dollars) and staffing levels during the first five years of open enrollment. Tables C.1 and C.3 present totals for each of the five years. Tables C.2 and C.4 present data in the same structure by quarter over the period.

HAO expenditures are of two kinds: administrative expenditures and housing allowance payments. Data on administrative expenditures in each period, classified by object-class, appear at the top of each table. Outlays in the housing allowance payment account appear immediately below. Almost all of the expenditures in this account were assistance payments made directly to recipient households. The residual is accounted for by: (1) collection losses (amounts due the HAO from participants that proved uncollectable), and (2) the net difference between advances made to recipients to cover security deposits when they moved, and the amounts those recipients had repaid.

All expenditure data in these tables are consistent with audited HAO financial statements. Annual audits by an independent accounting firm are a required practice for the HAOs. Arthur Young and Company (Milwaukee) performed the audits for both HAOs through 1977. Thereafter, Brown County HAO audits were conducted by Deloitte, Haskins and Sells (Green Bay area); and St. Joseph County HAO audits were conducted by Ernst and Whinney (South Bend).

At the bottom of each table, we present data on HAO staffing (staff full-time equivalents during each period) and selected "service ratios": salaries and total administrative expenditures per staff FTE, and administrative expenditures and payments to recipients per recipient-month.

Table C.1

PROGRAM EXPENDITURES AND SERVICE RATIOS BY YEAR
BROWN COUNTY HOUSING ALLOWANCE OFFICE

Item	Year 1	Year 2	Year 3	Year 4	Year 5
<i>Housing Allowance Office Expenditures (\$000s)</i>					
<u>ADMINISTRATIVE EXPENDITURES</u>					
Personnel Expenditures					
Salaries	562	614	649	605	570
Fringe benefits	<u>124</u>	<u>92</u>	<u>123</u>	<u>115</u>	<u>114</u>
Total	686	706	772	720	685
Nonpersonnel Expenditures					
Professional services	108	70	48	71	71
Outreach advertising	23	44	5	4	--
Travel	10	16	14	15	14
Computer operations	19	41	44	43	40
Office and equipment rental	109	118	111	109	110
Supplies, postage, printing, and miscellaneous	63	64	59	53	54
Equipment purchase and office renovation	<u>222</u>	<u>31</u>	<u>4</u>	<u>3</u>	<u>10</u>
Total	553	383	284	298	300
Total	1,240	1,089	1,056	1,018	985
<u>HOUSING ALLOWANCE PAYMENTS</u>					
Payments to recipients					
Payments to renters	430	1,131	1,711	2,030	2,481
Payments to homeowners	<u>307</u>	<u>767</u>	<u>1,063</u>	<u>979</u>	<u>993</u>
Total	736	1,898	2,773	3,010	3,474
Collection losses	--	--	4	14	8
Security deposit advances					
Advanced	12	21	27	26	4
Collected	<u>(5)</u>	<u>(17)</u>	<u>(24)</u>	<u>(28)</u>	<u>--</u>
Net	7	4	3	(2)	4
Total	744	1,902	2,780	3,022	3,486
<u>TOTAL EXPENDITURES</u>	1,983	2,992	3,837	4,040	4,471
<i>Staffing and Service Ratios</i>					
Total HAO staff full-time equivalents (FTE)	57.4	57.9	50.9	45.7	42.0
Expenditures per FTE (annualized)					
Salaries	9,793	10,603	12,760	13,234	13,580
Total administrative expenditures	21,598	18,815	20,753	22,286	23,443
No. of recipient months	11,271	29,910	38,409	40,148	43,198
Expenditures per recipient month					
Administrative expenditures	109.99	36.42	27.50	25.37	22.79
Payments to recipients	<u>65.33</u>	<u>63.46</u>	<u>72.21</u>	<u>74.96</u>	<u>80.43</u>
Total	175.32	99.88	99.71	100.33	103.22

SOURCE: HAO accounting records as of dates shown.

NOTES: See accompanying text for explanation of accounting system and sources of detailed account definitions.

Table C.2

PROGRAM EXPENDITURES AND SERVICE RATIOS BY QUARTER
BROWN COUNTY HOUSING ALLOWANCE OFFICE

Item	(1) Jul-Sep 1974	(2) Oct-Dec 1974	(3) Jan-Mar 1975	(4) Apr-Jun 1975	(5) Jul-Sep 1975
<i>Housing Allowance Office Expenditures</i>					
<u>ADMINISTRATIVE EXPENDITURES</u>					
Personnel Expenditures					
Salaries	113,673	151,158	133,996	163,291	151,901
Fringe benefits	23,464	37,858	26,141	36,763	13,201
Total	<u>137,137</u>	<u>189,016</u>	<u>160,137</u>	<u>200,054</u>	<u>165,102</u>
Nonpersonnel Expenditures					
Professional services	28,625	14,574	28,152	36,782	28,906
Outreach advertising	63	10,723	5,368	7,139	16,020
Travel	3,050	1,703	2,381	2,671	5,541
Computer operations	3,555	3,289	4,233	7,491	11,955
Office and equipment rental	19,921	33,018	25,742	29,895	29,060
Supplies, postage, printing and miscellaneous	14,003	16,196	16,834	16,040	18,690
Equipment purchase and office renovation	81,761	84,504	21,473	34,173	8,354
Total	<u>150,978</u>	<u>164,007</u>	<u>104,183</u>	<u>134,191</u>	<u>118,526</u>
Total	288,115	353,023	264,320	334,245	283,628
<u>HOUSING ALLOWANCE PAYMENTS</u>					
Payments to Recipients					
Payments to renters	9,855	55,338	135,759	228,590	244,142
Payments to homeowners	8,040	45,149	94,477	159,080	169,902
Total	<u>17,895</u>	<u>100,487</u>	<u>230,236</u>	<u>387,670</u>	<u>414,044</u>
Collection Losses	--	--	--	--	--
Security Deposit Advances					
Advanced	--	1,769	4,036	6,478	5,734
Collected	--	--	(1,820)	(3,119)	(3,526)
Net	--	1,769	2,216	3,359	2,208
Total	17,895	102,256	232,452	391,029	416,252
TOTAL EXPENDITURES	306,010	455,279	496,772	725,274	699,880
<i>Staffing and Service Ratios</i>					
Total HAO staff full-time equivalents (FTE)	50.0	59.0	59.5	61.2	60.6
Expenditures per FTE (annualized)					
Salaries	9,094	10,248	9,008	10,673	10,026
Total administrative expenditures	23,049	23,934	17,769	21,846	18,721
No. of recipient months	307	1,509	3,536	5,919	6,902
Expenditures per recipient month					
Administrative expenditures	938.49	233.95	74.75	56.47	41.09
Payments to recipients	58.29	66.59	65.11	65.50	59.99
Total	<u>996.78</u>	<u>300.54</u>	<u>139.86</u>	<u>121.97</u>	<u>101.08</u>

SOURCE: HAO accounting records as of dates shown.

NOTES: 'See accompanying text for explanation of accounting system and sources of detailed account definitions.

Table C.2 (continued)

PROGRAM EXPENDITURES AND SERVICE RATIOS BY QUARTER
BROWN COUNTY HOUSING ALLOWANCE OFFICE

Item	(6) Oct-Dec 1975	(7) Jan-Mar 1976	(8) Apr-Jun 1976	(9) Jul-Sep 1976	(10) Oct-Dec 1976
<i>Housing Allowance Office Expenditures</i>					
<u>ADMINISTRATIVE EXPENDITURES</u>					
Personnel Expenditures					
Salaries	191,510	131,889	138,627	173,963	178,843
Fringe benefits	28,139	23,515	27,403	31,202	31,851
Total	<u>219,649</u>	<u>155,404</u>	<u>166,030</u>	<u>205,165</u>	<u>210,694</u>
Nonpersonnel Expenditures					
Professional services	13,022	17,114	10,859	8,668	16,845
Outreach advertising	9,726	4,875	13,802	1,635	576
Travel	2,940	4,656	2,468	4,196	4,270
Computer operations	9,565	9,762	9,828	8,585	10,432
Office and equipment rental	29,130	29,807	29,670	27,119	28,651
Supplies, postage, printing, and miscellaneous	15,131	15,859	13,830	15,875	15,277
Equipment purchase and office renovation	22,291	170	148	1,554	2,327
Total	<u>101,805</u>	<u>82,243</u>	<u>80,605</u>	<u>67,632</u>	<u>78,378</u>
Total	321,454	237,647	246,635	272,797	289,072
<u>HOUSING ALLOWANCE PAYMENTS</u>					
Payments to recipients					
Payments to renters	251,415	255,671	379,785	408,498	415,209
Payments to homeowners	174,964	177,926	244,268	262,908	270,751
Total	<u>426,379</u>	<u>433,597</u>	<u>624,053</u>	<u>671,406</u>	<u>685,960</u>
Collection losses	--	--	--	1,966	575
Security deposit advances					
Advanced	4,360	5,169	5,909	8,819	8,307
Collected	<u>(3,733)</u>	<u>(5,461)</u>	<u>(4,370)</u>	<u>(5,987)</u>	<u>(5,888)</u>
Net	627	(292)	1,539	2,832	2,419
Total	427,006	433,305	625,592	676,204	688,954
<u>TOTAL EXPENDITURES</u>	748,460	670,952	872,227	949,001	978,026
<i>Staffing and Service Ratios</i>					
Total HAO staff full-time equivalents (FTE)	59.6	56.1	55.2	54.8	51.2
Expenditures per FTE (annualized)					
Salaries	12,853	9,404	10,045	12,698	13,972
Total administrative expenditures	21,574	16,945	17,872	19,912	22,584
No. of recipient months	7,209	7,605	8,194	9,116	9,581
Expenditures per recipient month					
Administrative expenditures	44.59	31.25	30.10	29.92	30.17
Payments to recipients	59.15	57.01	76.16	73.65	71.60
Total	<u>103.74</u>	<u>88.26</u>	<u>106.26</u>	<u>103.57</u>	<u>101.77</u>

SOURCE: HAO accounting records as of dates shown.

NOTES: See accompanying text for explanation of accounting system and sources of detailed account definitions.

Table C.2 (continued)

PROGRAM EXPENDITURES AND SERVICE RATIOS BY QUARTER
BROWN COUNTY HOUSING ALLOWANCE OFFICE

Item	(11) Jan-Mar 1977	(12) Apr-Jun 1977	(13) Jul-Sep 1977	(14) Oct-Dec 1977	(15) Jan-Mar 1978
<i>Housing Allowance Office Expenditures</i>					
ADMINISTRATIVE EXPENDITURES					
Personnel Expenditures					
Salaries	148,882	147,778	152,967	152,283	149,207
Fringe benefits	30,129	29,387	29,715	25,794	31,563
Total	179,011	177,165	182,682	178,077	180,770
Nonpersonnel Expenditures					
Professional services	18,965	3,111	16,289	26,650	20,780
Outreach advertising	304	2,201	1,628	2,420	8
Travel	4,181	1,379	2,447	8,417	2,495
Computer operations	11,734	13,027	10,088	9,038	12,614
Office and equipment rental	28,008	27,225	26,830	27,181	27,876
Supplies, postage, printing, and miscellaneous	12,483	15,553	11,667	15,818	12,814
Equipment purchase and office renovation	45	83	286	2,242	--
Total	75,720	62,579	69,235	91,766	76,587
Total	254,731	239,744	251,917	269,843	257,357
HOUSING ALLOWANCE PAYMENTS					
Payments to recipients					
Payments to renters	433,697	453,332	473,110	474,200	499,212
Payments to homeowners	264,870	264,129	256,106	243,713	228,408
Total	698,567	717,461	729,216	717,913	727,620
Collection losses	(450)	1,963	5,776	7,321	1,357
Security deposit advances					
Advanced	4,540	5,069	6,943	5,642	5,427
Collected	(6,343)	(5,796)	(5,839)	(6,630)	(7,159)
Net	(1,803)	(727)	1,104	(988)	(1,732)
Total	696,314	718,697	736,096	724,246	727,245
TOTAL EXPENDITURES	951,045	958,441	988,013	994,089	984,602
<i>Staffing and Service Ratios</i>					
Total HAO staff full-time equivalents (FTE)	50.1	47.5	46.2	45.3	45.8
Expenditures per FTE (annualized)					
Salaries	11,887	12,444	13,244	13,447	13,031
Total administrative expenditures	20,338	20,189	21,811	23,827	22,477
No. of recipient months	9,948	9,764	9,667	9,840	10,181
Expenditures per recipient month					
Administrative expenditures	25.61	24.55	26.06	27.42	25.28
Payments to recipients	70.22	73.48	75.43	72.96	71.47
Total	95.83	98.03	101.49	100.38	96.75

SOURCE: HAO accounting records as of dates shown.

NOTES: See accompanying text for explanation of accounting system and sources of detailed account definitions.

Table C.2 (continued)

PROGRAM EXPENDITURES AND SERVICE RATIOS BY QUARTER
BROWN COUNTY HOUSING ALLOWANCE OFFICE

Item	(16) Apr-Jun 1978	(17) Jul-Sep 1978	(18) Oct-Dec 1978	(19) Jan-Mar 1979	(20) Apr-Jun 1979
<i>Housing Allowance Office Expenditures</i>					
<u>ADMINISTRATIVE EXPENDITURES</u>					
Personnel Expenditures					
Salaries	150,346	152,122	142,605	137,055	138,567
Fringe benefits	28,223	29,083	29,282	27,584	28,439
Total	178,569	181,205	171,887	164,639	167,006
Nonpersonnel Expenditures					
Professional service	7,232	7,677	43,162	7,549	12,696
Outreach advertising	--	--	9	--	--
Travel	2,133	3,915	5,675	2,224	2,501
Computer operations	11,444	9,187	8,150	11,619	10,625
Office and equipment rental	26,917	27,092	27,482	28,016	27,454
Supplies, postage, printing and miscellaneous	13,015	12,516	12,513	13,912	15,506
Equipment purchase and office renovation	48	166	9,790	26	407
Total	60,789	60,553	106,781	63,346	69,189
Total	239,358	241,758	278,668	227,985	236,195
<u>HOUSING ALLOWANCE PAYMENTS</u>					
Payments to recipients					
Payments to renters	583,617	606,114	603,951	625,084	646,040
Payments to homeowners	251,248	261,505	249,443	242,169	240,024
Total	834,865	867,619	853,394	867,253	886,064
Collection losses	(264)	(203)	5,650	1,019	1,036
Security deposit advances					
Advanced	7,499	9,311	(22,239)	7,198	10,112
Collected	(7,900)	(6,100)	21,162	(7,462)	(7,498)
Net	(401)	3,211	(1,077)	(264)	2,614
Total	834,200	870,627	857,967	868,008	889,714
<u>TOTAL EXPENDITURES</u>	1,073,558	1,112,385	1,136,635	1,095,993	1,125,909
<i>Staffing and Service Ratios</i>					
Total HAO staff full-time equivalents (FTE)	45.6	43.6	42.1	41.7	40.6
Expenditures per FTE (annualized)					
Salaries	13,188	13,956	13,549	13,147	13,652
Total administrative expenditures	20,996	22,180	26,477	21,869	23,270
No. of recipient months	10,460	10,519	10,612	10,937	11,130
Expenditures per recipient month					
Administrative expenditures	22.88	22.98	26.26	20.84	21.22
Payments to recipients	79.82	82.48	80.42	79.30	79.61
Total	102.70	105.46	106.68	100.14	100.83

SOURCE: HAO accounting records as of dates shown.

NOTES: See accompanying text for explanation of accounting system and sources of detailed account definitions.

Table C.3

PROGRAM EXPENDITURES AND SERVICE RATIOS BY YEAR
ST. JOSEPH COUNTY HOUSING ALLOWANCE OFFICE

Item	Year 1	Year 2	Year 3	Year 4	Year 5
<i>Housing Allowance Office Expenditures (\$000s)</i>					
<u>ADMINISTRATIVE EXPENDITURES</u>					
Personnel Expenditures					
Salaries	733	940	967	987	1,050
Fringe benefits	<u>145</u>	<u>177</u>	<u>172</u>	<u>185</u>	<u>193</u>
Total	878	1,117	1,140	1,171	1,243
Nonpersonnel Expenditures					
Professional services	123	85	72	90	60
Outreach advertising	72	112	58	71	44
Travel	25	29	36	29	29
Computer operations	32	35	65	69	62
Office and equipment rental	136	146	163	165	166
Supplies, postage, printing, and miscellaneous	90	113	101	93	102
Equipment purchase and office renovation	<u>90</u>	<u>13</u>	<u>6</u>	<u>48</u>	<u>26</u>
Total	567	532	501	565	490
Total	1,445	1,649	1,641	1,736	1,733
<u>HOUSING ALLOWANCE PAYMENTS</u>					
Payments to recipients					
Payments to renters	593	1,552	2,244	2,555	3,246
Payments to homeowners	<u>628</u>	<u>1,500</u>	<u>2,338</u>	<u>2,545</u>	<u>3,031</u>
Total	1,221	3,053	4,582	5,100	6,277
Collection losses	—	—	15	16	9
Security deposit advances					
Advanced	53	(4)	41	5	97
Collected	<u>(18)</u>	<u>(2)</u>	<u>(43)</u>	<u>1</u>	<u>(68)</u>
Net	35	(5)	(2)	6	29
Total	1,255	3,047	4,595	5,121	6,315
<u>TOTAL EXPENDITURES</u>	2,701	4,696	6,236	6,857	8,049
<i>Staffing and Service Ratios</i>					
Total HAO staff full-time equivalents (FTE)	65.8	81.5	77.6	77.0	77.0
Expenditures per FTE (annualized)					
Salaries	11,139	11,535	12,467	12,817	13,631
Total Administrative expenditures	21,967	20,232	21,142	22,545	22,512
No. of recipient months	15,052	45,367	62,779	68,066	74,134
Expenditures per recipient month					
Administrative expenditures	96.03	36.35	26.13	25.50	23.38
Payments to recipients	<u>81.09</u>	<u>67.29</u>	<u>72.99</u>	<u>74.92</u>	<u>84.67</u>
Total	177.12	103.64	99.12	100.42	108.05

SOURCE: HAO accounting records as of dates shown.

NOTES: See accompanying text for explanation of accounting system and sources of detailed account definitions.

Table C.4

PROGRAM EXPENDITURES AND SERVICE RATIOS BY QUARTER
ST. JOSEPH COUNTY HOUSING ALLOWANCE OFFICE

Item	(1) Apr-Jun 1975	(2) Jul-Sep 1975	(3) Oct-Dec 1975	(4) Jan-Mar 1976	(5) Apr-Jun 1976
<i>Housing Allowance Office Expenditures</i>					
<u>ADMINISTRATIVE EXPENDITURES</u>					
Personnel Expenditures					
Salaries	146,375	180,414	198,041	208,119	225,070
Fringe benefits	26,139	30,524	46,023	42,360	41,489
Total	<u>172,514</u>	<u>210,938</u>	<u>244,064</u>	<u>250,479</u>	<u>266,559</u>
Nonpersonnel Expenditures					
Professional services	31,305	37,524	25,787	28,011	16,241
Outreach advertising	5,558	22,208	22,019	22,698	25,768
Travel	4,394	5,326	8,446	7,023	5,911
Computer operations	3,967	10,822	10,485	6,389	8,601
Office and equipment rental	32,167	35,400	37,015	31,595	38,099
Supplies, postage, printing, and miscellaneous	21,556	37,743	9,723	20,573	24,796
Equipment purchase and office renovation	36,840	26,889	25,126	847	3,045
Total	<u>135,787</u>	<u>175,912</u>	<u>138,601</u>	<u>117,136</u>	<u>122,461</u>
Total	308,301	386,850	382,665	367,615	389,020
<u>HOUSING ALLOWANCE PAYMENTS</u>					
Payments to recipients					
Payments to renters	15,916	84,083	209,032	283,665	332,171
Payments to homeowners	38,389	103,929	206,762	278,789	300,315
Total	<u>54,305</u>	<u>188,012</u>	<u>415,794</u>	<u>562,454</u>	<u>632,486</u>
Collection losses	--	--	--	--	--
Security deposit advances					
Advanced	3,091	11,587	20,873	17,527	12,754
Collected	(209)	(1,910)	(6,492)	(9,844)	(10,908)
Net	<u>2,882</u>	<u>9,677</u>	<u>14,381</u>	<u>7,683</u>	<u>1,846</u>
Total	57,187	197,689	430,175	570,137	634,332
<u>TOTAL EXPENDITURES</u>	365,488	584,539	812,840	937,752	1,023,352
<i>Staffing and Service Ratios</i>					
Total HAO staff full-time equivalents (FTE)	50.5	65.0	71.2	76.4	77.0
Expenditures per FTE (annualized)					
Salaries	11,594	11,102	11,126	10,896	11,692
Total Administrative expenditures	24,420	23,806	21,498	19,247	20,209
No. of recipient months	495	2,050	4,909	7,598	9,262
Expenditures per recipient month					
Administrative expenditures	622.83	188.71	77.95	48.38	42.00
Payments to recipients	109.71	91.71	84.70	74.03	68.29
Total	<u>732.54</u>	<u>280.42</u>	<u>162.65</u>	<u>122.41</u>	<u>110.29</u>

SOURCE: HAO accounting records as of dates shown.

NOTES: See accompanying text for explanation of accounting system and sources of detailed account definitions.

Table C.4 (continued)

PROGRAM EXPENDITURES AND SERVICE RATIOS BY QUARTER
ST. JOSEPH COUNTY HOUSING ALLOWANCE OFFICE

Item	(6) Jul-Sep 1976	(7) Oct-Dec 1976	(8) Jan-Mar 1977	(9) Apr-Jun 1977	(10) Jul-Sep 1977
<i>Housing Allowance Office Expenditures</i>					
ADMINISTRATIVE EXPENDITURES					
Personnel Expenditures					
Salaries	225,354	245,001	244,675	258,390	246,950
Fringe benefits	40,349	51,190	43,561	43,804	39,367
Total	265,703	296,191	288,236	302,194	286,317
Nonpersonnel Expenditures					
Professional services	26,355	20,526	21,704	28,395	16,250
Outreach advertising	27,402	20,486	38,578	31,073	13,668
Travel	6,431	6,978	9,547	11,662	5,798
Computer operations	9,159	7,650	9,176	17,347	19,201
Office and equipment rental	35,885	32,011	40,129	44,258	38,885
Supplies, postage, printing, and miscellaneous	24,971	36,820	26,068	21,746	30,256
Equipment purchase and office renovation	201	9,353	291	63	5,488
Total	130,404	133,824	145,493	154,544	129,546
Total	396,107	430,015	433,729	456,738	415,863
HOUSING ALLOWANCE PAYMENTS					
Payments to recipients					
Payments to renters	267,147	452,442	500,674	500,277	542,289
Payments to homeowners	264,339	458,669	477,034	540,883	562,492
Total	531,486	911,111	977,708	1,041,160	1,104,781
Collection losses	--	--	--	--	6,000
Security deposit advances					
Advanced	12,927	(43,208)	13,798	12,812	11,032
Collected	(7,517)	28,269	(11,485)	(10,761)	(12,253)
Net	5,410	(14,939)	2,313	2,051	(1,221)
Total	536,896	896,172	980,021	1,043,211	1,109,560
TOTAL EXPENDITURES	933,003	1,326,187	1,413,750	1,499,949	1,525,423
<i>Staffing and Service Ratios</i>					
Total HAO staff full-time equivalents (FTE)	77.4	85.2	86.6	85.3	78.8
Expenditures per FTE (annualized)					
Salaries	11,646	11,502	11,301	12,117	12,536
Total administrative expenditures	20,471	20,188	20,034	21,418	21,110
No. of recipient months	10,674	12,094	13,337	14,622	15,401
Expenditures per recipient month					
Administrative expenditures	37.11	35.56	32.52	31.24	27.00
Payments to recipients	49.79	75.34	73.31	71.21	71.73
Total	86.90	110.90	105.83	102.45	98.73

SOURCE: HAO accounting records as of dates shown.

NOTES: See accompanying text for explanation of accounting system and sources of detailed account definitions.

Table C.4 (continued)
 PROGRAM EXPENDITURES AND SERVICE RATIOS BY QUARTER
 ST. JOSEPH COUNTY HOUSING ALLOWANCE OFFICE

Item	(11) Oct-Dec 1977	(12) Jan-Mar 1978	(13) Apr-Jun 1978	(14) Jul-Sep 1978	(15) Oct-Dec 1978
<i>Housing Allowance Office Expenditures</i>					
ADMINISTRATIVE EXPENDITURES					
Personnel Expenditures					
Salaries	232,275	229,798	243,263	247,208	249,716
Fringe benefits	40,635	48,387	48,054	37,019	48,867
Total	272,910	278,185	291,317	284,227	298,583
Nonpersonnel Expenditures					
Professional services	18,409	8,469	19,932	8,810	53,668
Outreach advertising	12,111	1,353	11,209	26,665	31,852
Travel	10,668	8,329	8,897	6,244	7,499
Computer operations	13,810	15,017	14,280	15,045	25,586
Office and equipment rental	40,345	39,269	41,250	38,425	41,817
Supplies, postage, printing, and miscellaneous	25,781	23,018	21,644	18,565	31,716
Equipment purchase and office renovation	204	147	6,157	9,054	32,302
Total	121,328	95,602	123,369	122,808	224,440
Total	394,238	373,787	414,686	407,035	523,023
HOUSING ALLOWANCE PAYMENTS					
Payments to recipients					
Payments to renters	568,518	633,300	641,422	584,514	613,649
Payments to homeowners	629,585	604,725	616,393	607,759	605,269
Total	1,198,103	1,238,025	1,257,815	1,192,273	1,218,918
Collection losses	6,000	3,000	3,000	4,398	5,943
Security deposit advances					
Advanced	9,021	8,154	11,144	13,151	(32,449)
Collected	(7,212)	(12,778)	(10,026)	(9,534)	32,339
Net	1,809	(4,624)	1,118	3,617	(110)
Total	1,205,912	1,236,401	1,261,933	1,200,288	1,224,751
TOTAL EXPENDITURES	1,600,150	1,610,188	1,676,619	1,607,323	1,747,774
<i>Staffing and Service Ratios</i>					
Total HAO staff full-time equivalents (FTE)	74.0	72.1	74.3	77.2	79.1
Expenditures per FTE (annualized)					
Salaries	12,555	12,749	13,096	12,809	12,629
Total administrative expenditures	21,310	20,737	22,325	21,090	26,449
No. of recipient months	16,130	16,626	17,070	16,505	17,077
Expenditures per recipient month					
Administrative expenditures	24.44	22.48	24.29	24.66	30.63
Payments to recipients	74.28	74.46	73.69	72.24	71.38
Total	98.72	96.94	97.98	96.90	102.01

SOURCE: HAO accounting records as of dates shown.

NOTES: See accompanying text for explanation of accounting system and sources of detailed account definitions.

Table C.4 (continued)

PROGRAM EXPENDITURES AND SERVICE RATIOS BY QUARTER
ST. JOSEPH COUNTY HOUSING ALLOWANCE OFFICE

Item	(16) Jan-Mar 1979	(17) Apr-Jun 1979	(18) Jul-Sep 1979	(19) Oct-Dec 1979	(20) Jan-Mar 1980
<i>Housing Allowance Office Expenditures</i>					
<u>ADMINISTRATIVE EXPENDITURES</u>					
Personnel Expenditures					
Salaries	246,708	256,832	262,229	259,614	270,878
Fringe benefits	<u>50,627</u>	<u>41,345</u>	<u>49,954</u>	<u>48,714</u>	<u>53,390</u>
Total	297,335	298,177	312,183	308,328	324,268
Nonpersonnel Expenditures					
Professional services	7,139	12,754	11,022	17,644	18,703
Outreach advertising	1,559	9,921	3,392	29,767	1,058
Travel	6,439	8,493	5,947	6,168	8,862
Computer operations	14,559	12,229	13,958	19,111	16,530
Office and equipment rental	43,298	40,442	40,263	41,195	44,325
Supplies, postage, printing, and miscellaneous	20,909	26,334	19,971	31,733	24,389
Equipment purchase and office renovation	—	<u>3,213</u>	<u>3,217</u>	<u>19,463</u>	<u>378</u>
Total	<u>93,903</u>	<u>113,386</u>	<u>97,770</u>	<u>165,081</u>	<u>114,245</u>
Total	391,238	411,563	409,953	473,409	438,513
<u>HOUSING ALLOWANCE PAYMENTS</u>					
Payments to recipients					
Payments to renters	715,361	756,467	736,510	745,434	1,007,431
Payments to homeowners	<u>715,133</u>	<u>717,252</u>	<u>715,830</u>	<u>682,960</u>	<u>914,970</u>
Total	<u>1,430,494</u>	<u>1,473,719</u>	<u>1,452,340</u>	<u>1,428,394</u>	<u>1,922,401</u>
Collection losses	2,333	2,996	1,414	1,524	3,191
Security deposit advances					
Advanced	13,126	15,246	17,792	25,779	38,490
Collected	<u>(11,742)</u>	<u>(11,620)</u>	<u>(10,864)</u>	<u>(19,288)</u>	<u>(26,158)</u>
Net	<u>1,384</u>	<u>3,626</u>	<u>6,928</u>	<u>6,491</u>	<u>12,332</u>
Total	1,434,211	1,480,341	1,460,682	1,436,409	1,937,924
<u>TOTAL EXPENDITURES</u>	<u>1,825,449</u>	<u>1,891,904</u>	<u>1,870,635</u>	<u>1,909,818</u>	<u>2,376,437</u>
<i>Staffing and Service Ratios</i>					
Total HAO staff full-time equivalents (FTE)	77.6	74.5	77.3	75.1	81.3
Expenditures per FTE (annualized)					
Salaries	12,717	13,790	13,569	13,828	13,327
Total administrative expenditures	20,167	22,097	21,214	25,215	21,575
No. of recipient months	17,414	18,173	18,207	18,219	19,535
Expenditures per recipient month					
Administrative expenditures	22.47	22.65	22.52	25.98	22.45
Payments to recipients	<u>82.15</u>	<u>81.09</u>	<u>79.77</u>	<u>78.40</u>	<u>98.41</u>
Total	<u>104.62</u>	<u>103.74</u>	<u>102.29</u>	<u>104.38</u>	<u>120.86</u>

SOURCE: HAO accounting records as of dates shown.

NOTES: See accompanying text for explanation of accounting system and sources of detailed account definitions.

Appendix D

ADMINISTRATIVE COSTS BY FUNCTION

This appendix presents the results of our allocations of HAO object-class expenditures to administrative functions, as discussed in Sec. II. Each table offers data for five six-month periods: January-June 1977, July-December 1977, January-June, 1978, July-December 1978, and January-June 1979. Tables D.1 and D.5 present work-hours by function. Tables D.2 and D.6 present direct personnel costs by function. Tables D.3 and D.7 present direct nonpersonnel costs by function. Tables D.4 and D.8 present total direct costs by function. In this appendix, all costs are in current dollars.

The general methodology and precise rules for the cost allocation are provided in Kingsley and Schlegel, 1979. Our approach in this analysis involved only one difference--the treatment of capital expenditures.

HAO capital expenditures are included in the "Equipment Purchase and Office Renovation" account in the object-class accounting structure (see Appendix C). In the start-up period before the beginning of open enrollment, and in year one, both HAOs made many purchases charged to this account as they outfitted themselves for long-term operations. Most important were the acquisitions of automobiles, furniture, and office equipment; and some office renovations. Even at this stage, however, HAO capital expenditures were small in relation to other operating costs. Thereafter, they represented only a minute fraction of total administrative expenditures.

In our earlier study (April-December 1976), we treated capital expenditures as if they were operating costs; this was conceptually inappropriate but of little significance to the results of the analysis. Here, we follow the proper accounting rule. Capital expenditures are not counted as operating costs; depreciation on capital is counted as an operating cost.

To implement this rule, Rand and HAO staffs had to go back to records from the dates the HAO funding contracts were signed to set

up depreciation schedules. Each capital item was assigned a useful life; depreciation was calculated by the straight-line method over that life, and charged to various accounting periods accordingly.

The results are summarized in Table D.9. From the original funding data through June 1979, Brown County HAO administrative expenditures totaled \$5,677,800, of which \$160,194 went for capital items. Depreciation allocable to the period totaled \$98,462. Total operating costs were \$5,616,068--equivalent to total administrative cost minus the difference between capital expenditures and allocable depreciations. For the St. Joseph County HAO over the comparable period, administrative expenditures totaled \$7,455,707. Capital expenditures amounted to \$289,367, and allocable depreciation to \$150,908. Operating costs totaled \$7,317,248.

In each period, depreciation is charged to function account 54 (Administrative Support, Nonpersonnel Expenditures) in the cost allocation.

Table D.1

WORK HOURS BY FUNCTION:
BROWN COUNTY HOUSING ALLOWANCE OFFICE,
January 1977-June 1979

Item	Jan-Jun 1977	Jul-Dec 1977	Jan-Jun 1978	Jul-Dec 1978	Jan-Jun 1979
<i>Intake Functions</i>					
11. <u>OUTREACH</u>	295	91	94	38	147
12. <u>ELIGIBILITY CERTIFICATION</u>	5,140	4,619	4,578	3,749	3,866
12.1 <u>Screening and Scheduling</u>	1,289	1,347	1,305	1,062	762
12.11 Receipt and Screening of Contacts	895	727	690	552	409
12.12 Application Computer Processing	151	137	109	129	130
12.13 Interview Scheduling	243	483	506	381	223
12.2 <u>Interview and Program Information</u>	2,612	2,056	2,193	1,880	2,187
12.21 Program Information Sessions	--	--	--	--	--
12.22 Enrollment Interview	2,612	2,056	2,193	1,880	2,187
12.3 <u>Error Control and Data Processing</u>	1,239	1,216	1,080	807	917
12.31 Enrollment Data Review	499	522	477	323	417
12.32 Enrollment Verification	152	189	205	9	89
12.33 Enrollment Computer Processing	588	505	398	475	411
13. <u>HOUSING CERTIFICATION</u>	2,582	2,546	2,723	2,532	2,482
13.1 <u>Housing Evaluation</u>	2,473	2,503	2,594	2,432	2,424
13.11 Housing Evaluation	2,017	2,025	2,140	2,023	2,032
13.12 Housing Requirements Processing	456	478	454	409	392
13.2 <u>Enrollee Services</u>	109	43	129	100	58
13.21 Housing Information Services	109	43	129	100	58
13.22 Equal Opportunity Services	--	--	--	--	--
<u>TOTAL INTAKE</u>	8,017	7,256	7,395	6,319	6,495
<i>Maintenance Functions</i>					
21. <u>PAYMENTS OPERATIONS</u>	1,552	1,832	1,564	1,776	1,485
22. <u>ELIGIBILITY RECERTIFICATION</u>	9,334	9,231	8,437	8,013	7,425
22.1 <u>Semiannual Recertification</u>	2,869	2,564	2,288	2,272	2,194
22.11 SAR Client Contact and Processing	1,865	1,542	1,458	1,408	1,496
22.12 SAR Data Review	606	680	492	520	427
22.13 SAR Verification	56	38	46	52	67
22.14 SAR Computer Processing	342	304	292	292	204
22.2 <u>Annual Recertification</u>	5,345	5,813	5,176	4,926	4,469
22.21 AR Interview Scheduling	307	647	607	413	234
22.22 AR Interview	3,362	3,326	2,938	2,721	2,579
22.23 AR Data Review	811	1,020	780	1,093	1,183
22.24 AR Verification	288	223	245	127	68
22.25 AR Computer Processing	577	597	606	572	405
22.3 <u>Special Recertification</u>	1,120	854	973	815	762
22.31 SR Interview	528	565	659	560	495
22.32 SR Data Review	434	153	156	117	158
22.33 SR Verification	23	37	45	37	39
22.34 SR Computer Processing	135	99	113	101	70

SOURCE: HAO accounting records as of dates shown.

NOTES: Actual HAO staff work-hours and expenditures were allocated to functions by methods defined in Section II of this note, the introduction to this appendix and Kingsley and Schlegel, 1979.

Table D.1 (continued)

WORK HOURS BY FUNCTION:
BROWN COUNTY HOUSING ALLOWANCE OFFICE,
January 1977-June 1979

Item	Jan-Jun 1977	Jul-Dec 1977	Jan-Jun 1978	Jul-Dec 1978	Jan-Jun 1979
<i>Maintenance Functions (Continued)</i>					
23. HOUSING RECERTIFICATION	3,416	3,284	3,329	2,802	2,601
23.1 Housing Reevaluation	3,249	3,247	3,056	2,799	2,528
23.11 Housing Reevaluation	2,676	2,600	2,461	2,269	2,011
23.12 Housing Requirements Processing	573	647	595	530	517
23.2 Recipient Services	167	37	273	3	73
23.21 Housing Information Services	167	37	273	3	73
23.22 Equal Opportunity Services	--	--	--	--	--
<u>TOTAL MAINTENANCE</u>	14,302	14,347	13,330	12,591	11,511
<i>Experimental Support Functions</i>					
30.1 Site Monitoring	--	--	--	--	--
30.2 Special Studies	2,501	1,295	1,942	630	955
30.3 Design and Policy Changes	127	75	17	18	34
30.4 Housing Evaluation Computer System	542	568	535	512	530
30.5 External Program Review	303	661	389	5	2
30.6 Nonpersonnel Support	--	--	--	--	--
<u>TOTAL EXPERIMENTAL SUPPORT</u>	3,473	2,599	2,883	1,165	1,521
<i>Administrative Support Functions</i>					
51. GENERAL MANAGEMENT	8,220	9,038	8,943	7,807	7,676
51.1 Statistics and Reporting	836	704	652	700	572
51.2 Staff Training	415	847	517	768	1,070
51.3 General Quality Control	174	202	274	267	380
51.4 Community Meetings	23	39	61	34	45
51.5 Press and Community Relations	--	--	--	--	--
51.6 General Management	5,872	6,375	6,559	5,212	4,760
51.7 Program Research and Development	900	871	880	826	849
52. FINANCIAL MANAGEMENT	1,392	1,484	1,452	1,408	1,214
52.1 Budgeting and Cost Analysis	84	281	52	172	21
52.2 Financial Management - General	1,308	1,203	1,400	1,236	1,193
53. PERSONNEL AND ADMINISTRATIVE SERVICES	6,780	6,309	5,892	6,747	7,328
53.1 Personnel Services	770	746	638	719	743
53.2 Secretarial	3,214	2,838	2,617	3,409	3,595
53.3 Clerical	2,109	1,922	1,949	1,894	2,020
53.4 Purchasing and Maintenance	687	803	688	725	970
54. NONPERSONNEL EXPENDITURES	--	--	--	--	--
<u>TOTAL ADMINISTRATIVE SUPPORT</u>	16,392	16,831	16,287	15,962	16,218
<i>Total HAO</i>					
<u>TOTAL HAO</u>	42,184	41,033	39,895	36,037	35,745

SOURCE: HAO accounting records as of dates shown.

NOTES: Actual HAO staff work hours and expenditures were allocated to functions by methods defined in Section II of this note, the introduction to this appendix and Kingsley and Schlegel, 1979.

Table D.2

PERSONNEL COSTS BY FUNCTION:
BROWN COUNTY HOUSING ALLOWANCE OFFICE,
January 1977-June 1979

Item	Jan-Jun 1977	Jul-Dec 1977	Jan-Jun 1978	Jul-Dec 1978	Jan-Jun 1979
<i>Intake Functions</i>					
11. <u>OUTREACH</u>	2,695	865	914	413	1,527
12. <u>ELIGIBILITY CERTIFICATION</u>	34,976	32,211	32,535	30,163	29,716
12.1 <u>Screening and Scheduling</u>	8,456	8,734	8,550	7,964	5,369
12.11 Receipt and Screening of Contacts	6,391	5,384	5,191	4,760	3,280
12.12 Application Computer Processing	820	776	628	848	814
12.13 Interview Scheduling	1,245	2,574	2,731	2,356	1,275
12.2 <u>Interview and Program Information</u>	18,645	15,311	16,532	16,182	17,678
12.21 Program Information Sessions	—	—	—	—	—
12.22 Enrollment Interview	18,645	15,311	16,532	16,182	17,678
12.3 <u>Error Control and Data Processing</u>	7,875	8,166	7,453	6,017	6,669
12.31 Enrollment Data Review	3,562	3,875	3,591	2,779	3,386
12.32 Enrollment Verification	1,071	1,391	1,545	70	712
12.33 Enrollment Computer Processing	3,242	2,900	2,317	3,168	2,571
13. <u>HOUSING CERTIFICATION</u>	19,618	19,880	21,892	23,189	21,215
13.1 <u>Housing Evaluation</u>	18,464	19,424	20,468	21,932	20,556
13.11 Housing Evaluation	15,224	15,889	17,055	18,434	17,385
13.12 Housing Requirements Processing	3,240	3,535	3,413	3,498	3,171
13.2 <u>Enrollee Services</u>	1,154	456	1,424	1,257	659
13.21 Housing Information Services	1,154	456	1,424	1,257	659
13.22 Equal Opportunity Services	—	—	—	—	—
<u>TOTAL INTAKE</u>	57,289	52,956	55,341	53,765	52,458
<i>Maintenance Functions</i>					
21. <u>PAYMENTS OPERATIONS</u>	10,161	12,361	10,614	13,971	10,980
22. <u>ELIGIBILITY RECERTIFICATION</u>	64,209	65,474	60,572	66,144	58,363
22.1 <u>Semiannual Recertification</u>	19,896	18,461	16,761	19,030	17,407
22.11 SAR Client Contact and Processing	13,306	11,439	11,013	12,138	12,109
22.12 SAR Data Review	4,309	5,020	3,702	4,486	3,490
22.13 SAR Verification	392	270	340	455	530
22.14 SAR Computer Processing	1,889	1,732	1,706	1,951	1,278
22.2 <u>Annual Recertification</u>	36,534	40,827	36,676	40,297	34,864
22.21 AR Interview Scheduling	1,567	3,458	3,269	2,553	1,342
22.22 AR Interview	23,977	24,731	22,169	23,459	20,882
22.23 AR Data Review	5,753	7,556	5,862	9,380	9,538
22.24 AR Verification	2,048	1,657	1,836	1,087	564
22.25 AR Computer Processing	3,189	3,425	3,540	3,818	2,538
22.3 <u>Special Recertification</u>	7,779	6,186	7,135	6,817	6,092
22.31 SR Interview	3,774	4,201	4,978	4,819	4,033
22.32 SR Data Review	3,080	1,136	1,169	1,013	1,297
22.33 SR Verification	178	272	342	312	314
22.34 SR Computer Processing	747	577	646	673	448

SOURCE: HAO accounting records as of dates shown.

NOTES: Actual HAO staff work hours and expenditures were allocated to functions by methods defined in Section II of this note, the introduction to this appendix and Kingsley and Schlegel, 1979.

Table D.2 (continued)

PERSONNEL COSTS BY FUNCTION:
BROWN COUNTY HOUSING ALLOWANCE OFFICE,
January 1977-June 1979

Item	Jan-Jun 1977	Jul-Dec 1977	Jan-Jun 1978	Jul-Dec 1978	Jan-Jun 1979
<i>Maintenance Functions (Continued)</i>					
23. HOUSING RECERTIFICATION	26,037	25,647	27,152	25,336	22,261
23.1 Housing Reevaluation	24,278	25,246	24,124	25,300	21,438
23.11 Housing Reevaluation	20,183	20,444	19,634	20,714	17,238
23.12 Housing Requirements Processing	4,095	4,802	4,490	4,586	4,200
23.2 Recipient Services	1,759	401	3,028	36	823
23.21 Housing Information Services	1,759	401	3,028	36	823
23.22 Equal Opportunity Services	--	--	--	--	--
<u>TOTAL MAINTENANCE</u>	100,407	103,482	98,338	105,451	91,604
<i>Experimental Support Functions</i>					
30.1 Site Monitoring	--	--	--	--	--
30.2 Special Studies	36,020	19,268	29,601	11,036	15,529
30.3 Design and Policy Changes	1,835	1,104	252	315	547
30.4 Housing Evaluation Computer System	2,992	3,250	3,109	3,424	3,318
30.5 External Program Review	4,850	11,344	6,632	87	33
30.6 Nonpersonnel Support	--	--	--	--	--
<u>TOTAL EXPERIMENTAL SUPPORT</u>	45,697	34,966	39,594	14,862	19,427
<i>Administrative Support Functions</i>					
51. GENERAL MANAGEMENT	103,656	118,223	119,044	119,019	109,403
51.1 Statistics and Reporting	11,202	9,829	9,242	11,373	8,688
51.2 Staff Training	5,125	10,689	6,737	11,497	14,840
51.3 General Quality Control	2,148	2,598	3,574	3,981	5,308
51.4 Community Meetings	373	646	1,024	660	832
51.5 Press and Community Relations	--	--	--	--	--
51.6 General Management	72,433	81,996	85,686	77,800	66,539
51.7 Program Research and Development	12,375	12,465	12,781	13,708	13,196
52. FINANCIAL MANAGEMENT	9,684	11,758	10,471	12,446	9,256
52.1 Budgeting and Cost Analysis	1,028	3,462	666	2,556	298
52.2 Financial Management - General	8,656	8,296	9,805	9,890	8,958
53. PERSONNEL AND ADMINISTRATIVE SERVICES	39,443	39,374	36,551	47,549	49,497
53.1 Personnel Services	8,085	8,127	7,075	9,120	8,878
53.2 Secretarial	15,210	13,905	13,102	19,495	19,167
53.3 Clerical	8,563	8,116	8,354	9,282	9,288
53.4 Purchasing and Maintenance	7,585	9,226	8,020	9,652	12,164
54. NONPERSONNEL EXPENDITURES	--	--	--	--	--
<u>TOTAL ADMINISTRATIVE SUPPORT</u>	152,783	169,355	166,066	179,014	168,156
<i>Total HAO</i>					
<u>TOTAL HAO</u>	356,176	360,759	359,339	353,092	331,645

SOURCE: HAO accounting records as of dates shown.

NOTES: Actual HAO staff work hours and expenditures were allocated to functions by methods defined in Section II of this note, the introduction to this appendix and Kingsley and Schlegel, 1979.

Table D.3

NONPERSONNEL COSTS BY FUNCTION:
BROWN COUNTY HOUSING ALLOWANCE OFFICE,
January 1977-June 1979

Item	Jan-Jun 1977	Jul-Dec 1977	Jan-Jun 1978	Jul-Dec 1978	Jan-Jun 1979
<i>Intake Functions</i>					
11. <u>OUTREACH</u>	3,004	4,047	8	9	--
12. <u>ELIGIBILITY CERTIFICATION</u>	8,032	4,374	4,318	4,960	6,447
12.1 <u>Screening and Scheduling</u>	1,240	901	899	834	1,181
12.11 Receipt and Screening of Contacts	--	--	--	--	--
12.12 Application Computer Processing	1,240	901	899	834	1,181
12.13 Interview Scheduling	--	--	--	--	--
12.2 <u>Interview and Program Information</u>	1,949	142	95	1,055	1,521
12.21 Program Information Sessions	--	--	--	--	409
12.22 Enrollment Interview	1,949	142	95	1,055	1,112
12.3 <u>Error Control and Data Processing</u>	4,843	3,331	3,324	3,071	3,745
12.31 Enrollment Data Review	--	--	--	--	--
12.32 Enrollment Verification	--	--	--	--	--
12.33 Enrollment Computer Processing	4,843	3,331	3,324	3,071	3,745
13. <u>HOUSING CERTIFICATION</u>	661	1,206	871	1,201	907
13.1 <u>Housing Evaluation</u>	661	1,206	871	1,201	907
13.11 Housing Evaluation	661	1,206	871	1,201	907
13.12 Housing Requirements Processing	--	--	--	--	--
13.2 <u>Enrollee Services</u>	--	--	--	--	--
13.21 Housing Information Services	--	--	--	--	--
13.22 Equal Opportunity Services	--	--	--	--	--
<u>TOTAL INTAKE</u>	11,697	9,627	5,197	6,170	7,354
<i>Maintenance Functions</i>					
21. <u>PAYMENTS OPERATIONS</u>	2,565	2,369	3,228	2,326	2,380
22. <u>ELIGIBILITY RECERTIFICATION</u>	8,822	6,852	8,584	6,342	6,293
22.1 <u>Semiannual Recertification</u>	2,844	2,019	2,435	1,903	1,856
22.11 SAR Client Contact and Processing	--	--	--	--	--
22.12 SAR Data Review	--	--	--	--	--
22.13 SAR Verification	--	--	--	--	--
22.14 SAR Computer Processing	2,844	2,019	2,435	1,903	1,856
22.2 <u>Annual Recertification</u>	4,859	4,174	5,209	3,793	3,802
22.21 AR Interview Scheduling	--	--	--	--	--
22.22 AR Interview	97	223	126	97	102
22.23 AR Data Review	--	--	--	--	--
22.24 AR Verification	--	--	--	--	--
22.25 AR Computer Processing	4,762	3,951	5,083	3,696	3,700
22.3 <u>Special Recertification</u>	1,119	659	940	646	635
22.31 SR Interview	--	--	--	--	--
22.32 SR Data Review	--	--	--	--	--
22.33 SR Verification	--	--	--	--	--
22.34 SR Computer Processing	1,119	659	940	646	635

SOURCE: HAO accounting records as of dates shown.

NOTES: Actual HAO staff work hours and expenditures were allocated to functions by methods defined in Section II of this note, the introduction to this appendix and Kingsley and Schlegel, 1979.

Table D.3 (continued)

NONPERSONNEL COSTS BY FUNCTION:
BROWN COUNTY HOUSING ALLOWANCE OFFICE,
January 1977-June 1979

Item	Jan-Jun 1977	Jul-Dec 1977	Jan-Jun 1978	Jul-Dec 1978	Jan-Jun 1979
<i>Maintenance Functions (Continued)</i>					
23. HOUSING RECERTIFICATION	1,347	2,206	1,022	1,557	1,034
23.1 Housing Reevaluation	884	1,556	1,022	1,362	886
23.11 Housing Reevaluation	884	1,556	1,022	1,362	886
23.12 Housing Requirements Processing	--	--	--	--	--
23.2 Recipient Services	463	650	--	195	148
23.21 Housing Information Services	463	650	--	195	148
23.22 Equal Opportunity Services	--	--	--	--	--
<u>TOTAL MAINTENANCE</u>	12,734	11,427	12,834	10,225	9,707
<i>Experimental Support Functions</i>					
30.1 Site Monitoring	4,909	8,285	6,900	8,438	10,025
30.2 Special Studies	--	--	--	--	--
30.3 Design and Policy Changes	1,500	3,234	2,250	2,990	4,923
30.4 Housing Evaluation Computer System	4,482	3,770	4,494	3,297	4,839
30.5 External Program Review	13,112	14,550	15,354	822	375
30.6 Nonpersonnel Support	2,114	10,864	879	39,575	1,563
<u>TOTAL EXPERIMENTAL SUPPORT</u>	26,117	40,703	29,877	55,122	21,725
<i>Administrative Support Functions</i>					
51. GENERAL MANAGEMENT	7,478	9,265	8,056	6,221	7,774
51.1 Statistics and Reporting	--	--	--	--	--
51.2 Staff Training	--	--	--	--	--
51.3 General Quality Control	--	--	--	--	--
51.4 Community Meetings	--	--	--	--	--
51.5 Press and Community Relations	--	--	--	--	--
51.6 General Management	--	--	--	--	--
51.7 Program Research and Development	7,478	9,265	8,056	6,221	7,774
52. FINANCIAL MANAGEMENT	--	--	--	--	--
52.1 Budgeting and Cost Analysis	--	--	--	--	--
52.2 Financial Management - General	--	--	--	--	--
53. PERSONNEL AND ADMINISTRATIVE SERVICES	--	--	--	--	--
53.1 Personnel Services	--	--	--	--	--
53.2 Secretarial	--	--	--	--	--
53.3 Clerical	--	--	--	--	--
53.4 Purchasing and Maintenance	--	--	--	--	--
54. NONPERSONNEL EXPENDITURES	91,657	96,178	89,459	88,060	95,256
<u>TOTAL ADMINISTRATIVE SUPPORT</u>	99,135	105,443	97,515	94,281	103,030
<i>Total HAO</i>					
<u>TOTAL HAO</u>	149,683	167,200	145,423	165,798	141,816

SOURCE: HAO accounting records as of dates shown.

NOTES: Actual HAO staff work hours and expenditures were allocated to functions by methods defined in Section II of this note, the introduction to this appendix and Kingsley and Schlegel, 1979.

Table D.4

TOTAL DIRECT COSTS BY FUNCTION:
BROWN COUNTY HOUSING ALLOWANCE OFFICE,
January 1977-June 1979

Item	Jan-Jun 1977	Jul-Dec 1977	Jan-Jun 1978	Jul-Dec 1978	Jan-Jun 1979
<i>Intake Functions</i>					
11. <u>OUTREACH</u>	5,699	4,912	922	422	1,527
12. <u>ELIGIBILITY CERTIFICATION</u>	43,008	36,585	36,853	35,123	36,163
12.1 <u>Screening and Scheduling</u>	9,696	9,635	9,449	8,798	6,550
12.11 Receipt and Screening of Contacts	6,391	5,384	5,191	4,760	3,280
12.12 Application Computer Processing	2,060	1,677	1,527	1,682	1,995
12.13 Interview Scheduling	1,245	2,574	2,731	2,356	1,275
12.2 <u>Interview and Program Information</u>	20,594	15,453	16,627	17,237	19,199
12.21 Program Information Sessions	--	--	--	--	409
12.22 Enrollment Interview	20,594	15,453	16,627	17,237	18,790
12.3 <u>Error Control and Data Processing</u>	12,718	11,497	10,777	9,088	10,414
12.31 Enrollment Data Review	3,562	3,875	3,591	2,779	3,386
12.32 Enrollment Verification	1,071	1,391	1,545	70	712
12.33 Enrollment Computer Processing	8,085	6,231	5,641	6,239	6,316
13. <u>HOUSING CERTIFICATION</u>	20,279	21,086	22,763	24,390	22,122
13.1 <u>Housing Evaluation</u>	19,125	20,630	21,339	23,133	21,463
13.11 Housing Evaluation	15,885	17,095	17,926	19,635	18,292
13.12 Housing Requirements Processing	3,240	3,535	3,413	3,498	3,171
13.2 <u>Enrollee Services</u>	1,154	456	1,424	1,257	659
13.21 Housing Information Services	1,154	456	1,424	1,257	659
13.22 Equal Opportunity Services	--	--	--	--	--
<u>TOTAL INTAKE</u>	68,986	62,583	60,538	59,935	59,812
<i>Maintenance Functions</i>					
21. <u>PAYMENTS OPERATIONS</u>	12,726	14,730	13,842	16,297	13,360
22. <u>ELIGIBILITY RECERTIFICATION</u>	73,031	72,326	69,156	72,486	64,656
22.1 <u>Semiannual Recertification</u>	22,740	20,480	19,196	20,933	19,263
22.11 SAR Client Contact and Processing	13,306	11,439	11,013	12,138	12,109
22.12 SAR Data Review	4,309	5,020	3,702	4,486	3,490
22.13 SAR Verification	392	270	340	455	530
22.14 SAR Computer Processing	4,733	3,751	4,141	3,854	3,134
22.2 <u>Annual Recertification</u>	41,393	45,001	41,885	44,090	38,666
22.21 AR Interview Scheduling	1,567	3,458	3,269	2,553	1,342
22.22 AR Interview	24,074	24,954	22,295	23,556	20,984
22.23 AR Data Review	5,753	7,556	5,862	9,380	9,538
22.24 AR Verification	2,048	1,657	1,836	1,087	564
22.25 AR Computer Processing	7,951	7,376	8,623	7,514	6,238
22.3 <u>Special Recertification</u>	8,898	6,845	8,075	7,463	6,727
22.31 SR Interview	3,774	4,201	4,978	4,819	4,033
22.32 SR Data Review	3,080	1,136	1,169	1,013	1,297
22.33 SR Verification	178	272	342	312	314
22.34 SR Computer Processing	1,866	1,236	1,586	1,319	1,083

SOURCE: HAO accounting records as of dates shown.

NOTES: Actual HAO staff work hours and expenditures were allocated to functions by methods defined in Section II of this note, the introduction to this appendix and Kingsley and Schlegel, 1979.

Table D.4 (continued)

TOTAL DIRECT COSTS BY FUNCTION:
BROWN COUNTY HOUSING ALLOWANCE OFFICE,
January 1977-June 1979

Item	Jan-Jun 1977	Jul-Dec 1977	Jan-Jun 1978	Jul-Dec 1978	Jan-Jun 1979
<i>Maintenance Functions (Continued)</i>					
23. HOUSING RECERTIFICATION	27,384	27,853	28,174	26,893	23,295
23.1 <u>Housing Reevaluation</u>	25,162	26,802	25,146	26,662	22,324
23.11 Housing Reevaluation	21,067	22,000	20,656	22,076	18,124
23.12 Housing Requirements Processing	4,095	4,802	4,490	4,586	4,200
23.2 <u>Recipient Services</u>	2,222	1,051	3,028	231	971
23.21 Housing Information Services	2,222	1,051	3,028	231	971
23.22 Equal Opportunity Services	--	--	--	--	--
<u>TOTAL MAINTENANCE</u>	113,141	114,909	111,172	115,676	101,311
<i>Experimental Support Functions</i>					
30.1 Site Monitoring	4,909	8,285	6,900	8,438	10,025
30.2 Special Studies	36,020	19,268	29,601	11,036	15,529
30.3 Design and Policy Changes	3,335	4,338	2,502	3,305	5,470
30.4 Housing Evaluation Computer System	7,474	7,020	7,603	6,721	8,157
30.5 External Program Review	17,962	25,894	21,986	909	408
30.6 Nonpersonnel Support	2,114	10,864	879	39,575	1,563
<u>TOTAL EXPERIMENTAL SUPPORT</u>	71,814	75,669	69,471	69,984	41,152
<i>Administrative Support Functions</i>					
51. <u>GENERAL MANAGEMENT</u>	111,134	127,488	127,100	125,240	117,177
51.1 Statistics and Reporting	11,202	9,829	9,242	11,373	8,688
51.2 Staff Training	5,125	10,689	6,737	11,497	14,840
51.3 General Quality Control	2,148	2,598	3,574	3,981	5,308
51.4 Community Meetings	373	646	1,024	660	832
51.5 Press and Community Relations	--	--	--	--	--
51.6 General Management	72,433	81,996	85,686	77,800	66,539
51.7 Program Research and Development	19,853	21,730	20,837	19,929	20,970
52. <u>FINANCIAL MANAGEMENT</u>	9,684	11,758	10,471	12,446	9,256
52.1 Budgeting and Cost Analysis	1,028	3,462	666	2,556	298
52.2 Financial Management - General	8,656	8,296	9,805	9,890	8,958
53. <u>PERSONNEL AND ADMINISTRATIVE SERVICES</u>	39,443	39,374	36,551	47,549	49,497
53.1 Personnel Services	8,085	8,127	7,075	9,120	8,878
53.2 Secretarial	15,210	13,905	13,102	19,495	19,167
53.3 Clerical	8,563	8,116	8,354	9,282	9,288
53.4 Purchasing and Maintenance	7,585	9,226	8,020	9,652	12,164
54. <u>NONPERSONNEL EXPENDITURES</u>	91,657	96,178	89,459	88,060	95,256
<u>TOTAL ADMINISTRATIVE SUPPORT</u>	251,918	274,798	263,581	273,295	271,186
<i>Total HAO</i>					
<u>TOTAL HAO</u>	505,859	527,959	504,762	518,890	473,461

SOURCE: HAO accounting records as of dates shown.

NOTES: Actual HAO staff work hours and expenditures were allocated to functions by methods defined in Section II of this note, the introduction to this appendix and Kingsley and Schlegel, 1979.

Table D.5

WORK HOURS BY FUNCTION:
ST. JOSEPH COUNTY HOUSING ALLOWANCE OFFICE
January 1977-June 1979

Item	Jan-Jun 1977	Jul-Dec 1977	Jan-Jun 1978	Jul-Dec 1978	Jan-Jun 1979
<i>Intake Functions</i>					
11. <u>OUTREACH</u>	1,235	1,379	420	377	273
12. <u>ELIGIBILITY CERTIFICATION</u>	17,152	11,531	10,016	12,321	11,850
12.1 <u>Screening and Scheduling</u>	5,089	3,772	3,368	3,192	3,363
12.11 Receipt and Screening of Contacts	1,531	988	1,322	1,138	1,374
12.12 Application Computer Processing	243	231	177	176	151
12.13 Interview Scheduling	3,315	2,553	1,869	1,878	1,838
12.2 <u>Interview and Program Information</u>	7,931	4,678	3,833	5,651	5,481
12.21 Program Information Sessions	107	119	31	14	66
12.22 Enrollment Interview	7,824	4,559	3,802	5,637	5,415
12.3 <u>Error Control and Data Processing</u>	4,132	3,081	2,815	3,478	3,006
12.31 Enrollment Data Review	2,080	1,763	1,590	1,611	1,328
12.32 Enrollment Verification	498	402	381	480	479
12.33 Enrollment Computer Processing	1,554	916	844	1,387	1,199
13. <u>HOUSING CERTIFICATION</u>	9,052	7,810	6,126	6,821	7,161
13.1 <u>Housing Evaluation</u>	8,795	7,073	5,592	6,128	6,402
13.11 Housing Evaluation	7,331	5,674	4,352	4,834	4,955
13.12 Housing Requirements Processing	1,464	1,399	1,240	1,294	1,447
13.2 <u>Enrollee Services</u>	257	737	534	693	759
13.21 Housing Information Services	156	678	433	478	565
13.22 Equal Opportunity Services	101	59	101	215	194
<u>TOTAL INTAKE</u>	27,439	20,720	16,562	19,519	19,284
<i>Maintenance Functions</i>					
21. <u>PAYMENTS OPERATIONS</u>	3,070	2,435	2,074	2,357	2,080
22. <u>ELIGIBILITY RECERTIFICATION</u>	12,296	12,761	13,345	13,830	14,543
22.1 <u>Semiannual Recertification</u>	2,848	3,242	2,623	3,182	3,503
22.11 SAR Client Contact and Processing	23	67	--	61	207
22.12 SAR Data Review	2,297	2,631	2,147	2,383	2,491
22.13 SAR Verification	72	20	30	96	194
22.14 SAR Computer Processing	456	524	446	642	611
22.2 <u>Annual Recertification</u>	7,379	7,540	8,759	8,456	8,966
22.21 AR Interview Scheduling	744	529	335	7	6
22.22 AR Interview	3,887	4,118	5,127	4,815	5,156
22.23 AR Data Review	1,587	1,666	1,711	1,652	1,947
22.24 AR Verification	187	188	308	481	443
22.25 AR Computer Processing	974	1,039	1,278	1,501	1,414
22.3 <u>Special Recertification</u>	2,069	1,979	1,963	2,192	2,074
22.31 SR Interview	1,542	1,486	1,387	1,246	1,349
22.32 SR Data Review	154	137	217	392	292
22.33 SR Verification	75	75	57	175	106
22.34 SR Computer Processing	298	281	302	379	327

SOURCE: HAO accounting records as of dates shown.

NOTES: Actual HAO staff work hours and expenditures were allocated to functions by methods defined in Section II of this note, the introduction to this appendix and Kingsley and Schlegel, 1979.

Table D.5 (continued)

WORK HOURS BY FUNCTION:
ST. JOSEPH COUNTY HOUSING ALLOWANCE OFFICE
January 1977-June 1979

Item	Jan-Jun 1977	Jul-Dec 1977	Jan-Jun 1978	Jul-Dec 1978	Jan-Jun 1979
<i>Maintenance Functions (Continued)</i>					
23. <u>HOUSING RECERTIFICATION</u>	5,945	7,163	8,553	7,815	7,697
23.1 <u>Housing Reevaluation</u>	5,590	6,816	8,144	7,470	7,447
23.11 Housing Reevaluation	4,877	6,012	7,307	6,331	6,235
23.12 Housing Requirements Processing	713	804	837	1,139	1,212
23.2 <u>Recipient Services</u>	355	347	409	345	250
23.21 Housing Information Services	355	347	409	345	250
23.22 Equal Opportunity Services	--	--	--	--	--
<u>TOTAL MAINTENANCE</u>	21,311	22,359	23,972	24,002	24,320
<i>Experimental Support Functions</i>					
30.1 Site Monitoring	918	881	800	960	96
30.2 Special Studies	2,868	2,304	1,664	2,020	1,584
30.3 Design and Policy Changes	233	158	48	53	77
30.4 Housing Evaluation Computer System	1,240	1,232	1,223	1,135	1,103
30.5 External Program Review	800	225	123	75	69
30.6 Nonpersonnel Support	--	--	--	--	--
<u>TOTAL EXPERIMENTAL SUPPORT</u>	6,059	4,800	3,858	4,243	2,929
<i>Administrative Support Functions</i>					
51. <u>GENERAL MANAGEMENT</u>	12,155	11,368	11,814	10,972	11,690
51.1 Statistics and Reporting	1,873	1,639	1,502	1,332	1,233
51.2 Staff Training	440	303	1,021	1,363	1,055
51.3 General Quality Control	1,205	1,145	1,306	854	720
51.4 Community Meetings	198	99	108	163	157
51.5 Press and Community Relations	324	5	13	134	220
51.6 General Management	7,128	7,441	7,234	6,444	7,597
51.7 Program Research and Development	987	736	630	682	708
52. <u>FINANCIAL MANAGEMENT</u>	3,839	3,554	3,330	3,070	3,044
52.1 Budgeting and Cost Analysis	203	341	120	281	127
52.2 Financial Management - General	3,636	3,213	3,210	2,789	2,917
53. <u>PERSONNEL AND ADMINISTRATIVE SERVICES</u>	8,984	8,581	7,719	9,185	8,912
53.1 Personnel Services	1,041	1,033	999	1,133	1,559
53.2 Secretarial	4,238	4,089	3,950	4,419	3,445
53.3 Clerical	3,001	2,679	2,267	2,897	3,172
53.4 Purchasing and Maintenance	704	780	503	736	736
54. <u>NONPERSONNEL EXPENDITURES</u>	--	--	--	--	--
<u>TOTAL ADMINISTRATIVE SUPPORT</u>	24,978	23,503	22,863	23,227	23,646
<i>Total HAO</i>					
<u>TOTAL HAO</u>	79,787	71,382	67,255	70,991	70,179

SOURCE: HAO accounting records as of dates shown.

NOTES: Actual HAO staff work hours and expenditures were allocated to functions by methods defined in Section II of this note, the introduction to this appendix and Kingsley and Schlegel, 1979.

Table D.6

PERSONNEL COSTS BY FUNCTION:
ST. JOSEPH COUNTY HOUSING ALLOWANCE OFFICE,
January 1977-June 1979

Item	Jan-Dec 1977	Jul-Dec 1977	Jan-Jun 1978	Jul-Dec 1978	Jan-Jun 1979
<i>Intake Functions</i>					
11. <u>OUTREACH</u>	11,821	13,807	4,640	4,107	3,035
12. <u>ELIGIBILITY CERTIFICATION</u>	100,611	71,534	67,603	82,312	81,880
12.1 <u>Screening and Scheduling</u>	25,988	20,199	20,223	18,688	20,634
12.11 Receipt and Screening of Contacts	9,109	6,302	9,046	7,678	9,588
12.12 Application Computer Processing	1,176	1,201	971	958	834
12.13 Interview Scheduling	15,703	12,696	10,206	10,052	10,212
12.2 <u>Interview and Program Information</u>	50,791	31,944	28,348	41,103	41,121
12.21 Program Information Sessions	619	781	226	90	447
12.22 Enrollment Interview	50,172	31,163	28,122	41,013	40,674
12.3 <u>Error Control and Data Processing</u>	23,832	19,391	19,032	22,521	20,125
12.31 Enrollment Data Review	13,193	11,983	11,593	11,543	9,826
12.32 Enrollment Verification	3,153	2,711	2,769	3,433	3,542
12.33 Enrollment Computer Processing	7,486	4,697	4,670	7,545	6,757
13. <u>HOUSING CERTIFICATION</u>	56,892	52,111	44,418	48,751	52,728
13.1 <u>Housing Evaluation</u>	55,173	47,437	40,520	43,576	46,982
13.11 Housing Evaluation	45,888	37,977	31,460	34,305	36,262
13.12 Housing Requirements Processing	9,285	9,460	9,060	9,271	10,720
13.2 <u>Enrollee Services</u>	1,719	4,674	3,898	5,175	5,746
13.21 Housing Information Services	920	4,175	2,985	3,234	3,930
13.22 Equal Opportunity Services	799	499	913	1,941	1,816
<u>TOTAL INTAKE</u>	169,324	137,452	116,661	135,170	137,643
<i>Maintenance Functions</i>					
21. <u>PAYMENTS OPERATIONS</u>	18,316	15,287	14,113	15,639	14,322
22. <u>ELIGIBILITY RECERTIFICATION</u>	74,512	82,476	93,838	95,428	104,246
22.1 <u>Semiannual Recertification</u>	17,336	21,011	18,377	21,731	24,893
22.11 SAR Client Contact and Processing	149	445	--	442	1,548
22.12 SAR Data Review	14,526	17,741	15,692	17,094	18,461
22.13 SAR Verification	478	139	229	699	1,430
22.14 SAR Computer Processing	2,183	2,686	2,456	3,496	3,454
22.2 <u>Annual Recertification</u>	44,359	48,382	61,550	58,500	64,497
22.21 AR Interview Scheduling	3,545	2,665	1,828	28	30
22.22 AR Interview	24,890	27,981	37,885	34,967	38,710
22.23 AR Data Review	10,049	11,184	12,509	11,845	14,473
22.24 AR Verification	1,193	1,256	2,241	3,454	3,304
22.25 AR Computer Processing	4,682	5,296	7,087	8,206	7,980
22.3 <u>Special Recertification</u>	12,817	13,083	13,911	15,197	14,856
22.31 SR Interview	9,908	10,230	10,220	9,075	10,092
22.32 SR Data Review	999	924	1,576	2,812	2,144
22.33 SR Verification	474	476	424	1,237	774
22.34 SR Computer Processing	1,436	1,453	1,691	2,073	1,846

SOURCE: HAO accounting records as of dates shown.

NOTES: Actual HAO staff work hours and expenditures were allocated to functions by methods defined in Section II of this note, the introduction to this appendix and Kingsley and Schlegel, 1979.

Table D.6 (continued)

PERSONNEL COSTS BY FUNCTION:
ST. JOSEPH COUNTY HOUSING ALLOWANCE OFFICE,
January 1977-June 1979

Item	Jan-Jun 1977	Jul-Dec 1977	Jan-Jun 1978	Jul-Dec 1978	Jan-Jun 1979
<i>Maintenance Functions (Continued)</i>					
23. HOUSING RECERTIFICATION	36,809	47,063	61,184	54,819	55,930
23.1 <u>Housing Reevaluation</u>	34,685	44,902	58,374	52,475	54,202
23.11 Housing Reevaluation	30,463	39,772	52,627	44,781	45,745
23.12 Housing Requirements Processing	4,222	5,130	5,747	7,694	8,457
23.2 <u>Recipient Services</u>	2,124	2,161	2,810	2,344	1,728
23.21 Housing Information Services	2,124	2,161	2,810	2,344	1,728
23.22 Equal Opportunity Services	--	--	--	--	--
<u>TOTAL MAINTENANCE</u>	129,637	144,826	169,135	165,886	174,498
<i>Experimental Support Functions</i>					
30.1 Site Monitoring	9,123	9,397	9,165	10,797	1,130
30.2 Special Studies	37,297	31,489	24,990	29,786	24,117
30.3 Design and Policy Changes	2,881	2,077	680	727	1,102
30.4 Housing Evaluation Computer System	5,968	6,360	6,806	6,168	6,224
30.5 External Program Review	11,867	3,358	2,117	1,261	1,189
30.6 Nonpersonnel Support	--	--	--	--	--
<u>TOTAL EXPERIMENTAL SUPPORT</u>	67,136	52,681	43,758	48,739	33,762
<i>Administrative Support Functions</i>					
51. <u>GENERAL MANAGEMENT</u>	146,558	144,506	162,652	149,151	164,037
51.1 Statistics and Reporting	23,256	21,599	21,504	18,734	17,894
51.2 Staff Training	5,294	3,713	14,129	18,656	14,985
51.3 General Quality Control	14,562	14,810	18,228	11,653	10,184
51.4 Community Meetings	2,943	1,611	1,844	2,745	2,739
51.5 Press and Community Relations	4,741	86	204	2,262	3,752
51.6 General Management	83,715	93,241	97,884	85,655	104,360
51.7 Program Research and Development	12,047	9,446	8,859	9,446	10,123
52. <u>FINANCIAL MANAGEMENT</u>	29,091	29,228	28,813	26,908	26,795
52.1 Budgeting and Cost Analysis	2,390	4,036	1,597	3,702	1,757
52.2 Financial Management - General	26,701	25,192	27,216	23,206	25,038
53. <u>PERSONNEL AND ADMINISTRATIVE SERVICES</u>	48,684	50,534	48,483	56,956	58,777
53.1 Personnel Services	8,915	9,498	9,836	10,966	15,633
53.2 Secretarial	21,023	21,647	22,601	24,838	20,008
53.3 Clerical	12,097	11,511	10,525	13,254	14,977
53.4 Purchasing and Maintenance	6,649	7,878	5,521	7,898	8,159
54. <u>NONPERSONNEL EXPENDIGURES</u>	--	--	--	--	--
<u>TOTAL ADMINISTRATIVE SUPPORT</u>	224,333	224,268	239,948	233,015	249,609
<i>Total HAO</i>					
<u>TOTAL HAO</u>	590,430	559,227	569,502	582,810	595,512

SOURCE: HAO accounting records as of dates shown.

NOTES: Actual HAO staff work hours and expenditures were allocated to functions by methods defined in Section II of this note, the introduction to this appendix and Kingsley and Schlegel, 1979.

Table D.7

NONPERSONNEL COSTS BY FUNCTION:
ST. JOSEPH COUNTY HOUSING ALLOWANCE OFFICE
January 1977-June 1979

Item	Jan-Jun 1977	Jul-Dec 1977	Jan-Jun 1978	Jul-Dec 1978	Jan-Jun 1979
<i>Intake Functions</i>					
11. <u>OUTREACH</u>	75,859	29,008	14,674	58,563	11,840
12. <u>ELIGIBILITY CERTIFICATION</u>	8,781	7,716	6,292	11,247	7,598
12.1 <u>Screening and Scheduling</u>	1,057	1,474	1,059	1,192	782
12.11 Receipt and Screening of Contacts	--	--	--	--	--
12.12 Application Computer Processing	1,057	1,474	1,059	1,192	782
12.13 Interview Scheduling	--	--	--	--	--
12.12 <u>Interview and Program Information</u>	642	419	276	453	537
12.21 Program Information Sessions	175	165	--	237	--
12.22 Enrollment Interview	467	254	276	216	537
12.3 <u>Error Control and Data Processing</u>	7,082	5,823	4,957	9,602	6,279
12.31 Enrollment Data Review	--	--	--	--	--
12.32 Enrollment Verification	--	--	--	--	--
12.33 Enrollment Computer Processing	7,082	5,823	4,957	9,602	6,279
13. <u>HOUSING CERTIFICATION</u>	13,490	9,476	5,732	8,378	5,068
13.1 <u>Housing Evaluation</u>	4,553	2,924	3,371	2,022	2,450
13.11 Housing Evaluation	4,553	2,924	3,371	2,022	2,450
13.12 Housing Requirements Processing	--	--	--	--	--
13.2 <u>Enrollee Services</u>	8,937	6,552	2,361	6,356	2,618
13.21 Housing Information Services	--	--	--	--	--
13.22 Equal Opportunity Services	8,937	6,552	2,361	6,356	2,618
<u>TOTAL INTAKE</u>	98,130	46,200	26,698	78,188	24,506
<i>Maintenance Functions</i>					
21. <u>PAYMENTS OPERATIONS</u>	3,127	4,034	3,111	4,632	2,798
22. <u>ELIGIBILITY RECERTIFICATION</u>	8,309	11,971	12,439	17,562	12,826
22.1 <u>Semiannual Recertification</u>	2,098	3,333	2,673	4,452	3,210
22.11 SAR Client Contact and Processing	--	--	--	--	--
22.12 SAR Data Review	--	--	--	--	--
22.13 SAR Verification	--	--	--	4,452	3,210
22.14 SAR Computer Processing	2,098	3,333	2,673	--	--
22.2 <u>Annual Recertification</u>	4,931	6,853	8,013	10,447	7,901
22.21 AR Interview Scheduling	--	--	--	--	--
22.22 AR Interview	269	237	373	180	514
22.23 AR Data Review	--	--	--	--	--
22.24 AR Verification	--	--	--	--	--
22.25 AR Computer Processing	4,662	6,616	7,640	10,267	7,387
22.3 <u>Special Recertification</u>	1,280	1,785	1,753	2,663	1,715
22.31 SR Interview	--	--	--	--	--
22.32 SR Data Review	--	--	--	--	--
22.33 SR Verification	--	--	--	--	--
22.34 SR Computer Processing	1,280	1,785	1,753	2,663	1,715

SOURCE: HAO accounting records as of dates shown.
NOTES: Actual HAO staff work hours and expenditures were allocated to functions by methods defined in Section II of this note, the introduction to this appendix and Kingsley and Schlegel, 1979.

Table D.7 (continued)

NONPERSONNEL COSTS BY FUNCTION:
ST. JOSEPH COUNTY HOUSING ALLOWANCE OFFICE
January 1977-June 1979

Item	Jan-Jun 1977	Jul-Dec 1977	Jan-Jun 1978	Jul-Dec 1978	Jan-Jan 1979
<i>Maintenance Functions (Continued)</i>					
23. HOUSING RECERTIFICATION	5,284	4,652	8,086	2,686	4,262
23.1 Housing Reevaluation	2,927	2,981	5,522	2,667	2,804
23.1.1 Housing Reevaluation	2,927	2,981	5,522	2,667	2,804
23.1.2 Housing Requirements Processing	--	--	--	--	--
23.2 Recipient Services	2,357	1,671	2,564	19	1,458
23.2.1 Housing Information Services	2,357	1,671	2,564	19	1,458
23.2.2 Equal Opportunity Services	--	--	--	--	--
<u>TOTAL MAINTENANCE</u>	16,720	20,657	23,636	24,880	19,886
<i>Experimental Support Functions</i>					
30.1 Site Monitoring	--	--	--	--	--
30.2 Special Studies	--	--	--	5,600	--
30.3 Design and Policy Changes	2,500	1,982	599	4,162	1,832
30.4 Housing Evaluation Computer System	5,778	7,798	7,484	7,756	5,741
30.5 External Program Review	27,979	5,845	5,634	10,398	4,460
30.6 Nonpersonnel Support	4,197	13,594	13,686	41,753	5,155
<u>TOTAL EXPERIMENTAL SUPPORT</u>	40,454	29,219	27,403	69,669	17,188
<i>Administrative Support Functions</i>					
51. GENERAL MANAGEMENT	4,801	8,208	4,393	3,637	7,569
51.1 Statistics and Reporting	--	--	--	--	--
51.2 Staff Training	--	--	--	--	3,611
51.3 General Quality Control	130	--	--	--	--
51.4 Community Meetings	--	--	--	--	--
51.5 Press and Community Relations	--	--	--	--	--
51.6 General Management	--	--	--	--	--
51.7 Program Research and Development	4,671	8,208	4,393	3,637	3,958
52. FINANCIAL MANAGEMENT	--	--	--	--	--
52.1 Budgeting and Cost Analysis	--	--	--	--	--
52.2 Financial Management - General	--	--	--	--	--
53. PERSONNEL AND ADMINISTRATIVE SERVICES	--	--	--	--	--
53.1 Personnel Services	--	--	--	--	--
53.2 Secretarial	--	--	--	--	--
53.3 Clerical	--	--	--	--	--
53.4 Purchasing and Maintenance	--	--	--	--	--
54. NONPERSONNEL EXPENDITURES	158,615	159,624	144,683	150,743	151,907
<u>TOTAL ADMINISTRATIVE SUPPORT</u>	163,416	167,832	149,076	154,308	159,476
<i>Total HAO</i>					
<u>TOTAL HAO</u>	318,720	263,908	226,813	327,117	221,056

SOURCE: HAO accounting records as of dates shown.

NOTES: Actual HAO staff work hours and expenditures were allocated to functions by methods defined in Section II of this note, the introduction to this appendix and Kingsley and Schlegel, 1979.

Table D.8

TOTAL DIRECT COSTS BY FUNCTION:
ST. JOSEPH COUNTY HOUSING ALLOWANCE OFFICE,
January 1977-June 1979

Item	Jan-Jun 1977	Jul-Dec 1977	Jan-Jun 1978	Jul-Dec 1978	Jan-Jun 1979
<i>Intake Functions</i>					
11. <u>OUTREACH</u>	87,680	42,815	19,314	62,670	14,875
12. <u>ELIGIBILITY CERTIFICATION</u>	109,392	79,250	73,895	93,559	89,478
12.1 <u>Screening and Scheduling</u>	27,045	21,673	21,282	19,880	21,416
12.11 Receipt and Screening of Contacts	9,109	6,302	9,046	7,678	9,588
12.12 Application Computer Processing	2,233	2,675	2,030	2,150	1,616
12.13 Interview Scheduling	15,703	12,696	10,206	10,052	10,212
12.2 <u>Interview and Program Information</u>	51,433	32,363	28,624	41,556	41,658
12.21 Program Information Sessions	794	946	226	327	447
12.22 Enrollment Interview	50,639	31,417	28,398	41,229	41,211
12.3 <u>Error Control and Data Processing</u>	30,914	25,214	23,989	32,123	26,404
12.31 Enrollment Data Review	13,193	11,983	11,593	11,543	9,826
12.32 Enrollment Verification	3,153	2,711	2,769	3,433	3,542
12.33 Enrollment Computer Processing	14,568	10,520	9,627	17,147	13,036
13. <u>HOUSING CERTIFICATION</u>	70,382	61,587	50,150	57,129	57,796
13.1 <u>Housing Evaluation</u>	59,726	50,361	43,891	45,598	49,432
13.11 Housing Evaluation	50,441	40,901	34,831	36,327	38,712
13.12 Housing Requirements Processing	9,285	9,460	9,060	9,271	10,720
13.2 <u>Enrollee Services</u>	10,656	11,226	6,259	11,531	8,364
13.21 Housing Information Services	920	4,175	2,985	3,234	3,930
13.22 Equal Opportunity Services	9,736	7,051	3,274	8,297	4,434
<u>TOTAL INTAKE</u>	267,454	183,652	143,359	213,358	162,149
<i>Maintenance Functions</i>					
21. <u>PAYMENTS OPERATIONS</u>	21,443	19,321	17,224	20,271	17,120
22. <u>ELIGIBILITY RECERTIFICATION</u>	82,821	94,447	106,277	112,990	117,072
22.1 <u>Semiannual Recertification</u>	19,434	24,344	21,050	26,183	28,103
22.11 SAR Client Contact and Processing	149	445	—	442	1,548
22.12 SAR Data Review	14,526	17,741	15,692	17,094	18,461
22.13 SAR Verification	478	139	229	699	1,430
22.14 SAR Computer Processing	4,281	6,019	5,129	7,948	6,664
22.2 <u>Annual Recertification</u>	49,290	55,235	69,563	68,947	72,398
22.21 AR Interview Scheduling	3,545	2,665	1,828	28	30
22.22 AR Interview	25,159	28,218	38,258	35,147	39,224
22.23 AR Data Review	10,049	11,184	12,509	11,845	14,473
22.24 AR Verification	1,193	1,256	2,241	3,454	3,304
22.25 AR Computer Processing	9,344	11,912	14,727	18,473	15,367
22.3 <u>Special Recertification</u>	14,097	14,868	15,664	17,860	16,571
22.31 SR Interview	9,908	10,230	10,220	9,075	10,092
22.32 SR Data Review	999	924	1,576	2,812	2,144
22.33 SR Verification	474	476	424	1,237	774
22.34 SR Computer Processing	2,716	3,238	3,444	4,736	3,561

SOURCE: HAO accounting records as of dates shown.

NOTES: Actual HAO staff work hours and expenditures were allocated to functions by methods defined in Section II of this note, the introduction to this appendix and Kingsley and Schlegel, 1979.

Table D.8 (continued)

TOTAL DIRECT COSTS BY FUNCTION:
ST. JOSEPH COUNTY HOUSING ALLOWANCE OFFICE
January 1977-June 1979

Item	Jan-Jun 1977	Jul-Dec 1977	Jan-Jun 1978	Jul-Dec 1978	Jan-Jun 1979
<i>Maintenance Functions (Continued)</i>					
23. HOUSING RECERTIFICATION	42,093	51,715	69,270	57,505	60,192
23.1 Housing Reevaluation	37,612	47,883	63,896	55,142	57,006
23.11 Housing Reevaluation	33,390	42,753	58,149	47,448	48,549
23.12 Housing Requirements Processing	4,222	5,130	5,747	7,694	8,457
23.2 Recipient Services	4,481	3,832	5,374	2,363	3,186
23.21 Housing Information Services	4,481	3,832	5,374	2,363	3,186
23.22 Equal Opportunity Services	--	--	--	--	--
<u>TOTAL MAINTENANCE</u>	146,357	165,483	192,771	190,766	194,384
<i>Experimental Support Functions</i>					
30.1 Site Monitoring	9,123	9,397	9,165	10,797	1,130
30.2 Special Studies	37,297	31,489	24,990	35,386	24,117
30.3 Design and Policy Changes	5,381	4,059	1,279	4,889	2,934
30.4 Housing Evaluation Computer System	11,746	14,158	14,290	13,924	11,965
30.5 External Program Review	39,846	9,203	7,751	11,659	5,649
30.6 Nonpersonnel Support	4,197	13,594	13,686	41,753	5,155
<u>TOTAL EXPERIMENTAL SUPPORT</u>	107,590	81,900	71,161	118,408	50,950
<i>Administrative Support Functions</i>					
51. GENERAL MANAGEMENT	151,359	152,714	167,045	152,788	171,606
51.1 Statistics and Reporting	23,256	21,599	21,504	18,734	17,894
51.2 Staff Training	5,294	3,713	14,129	18,656	18,596
51.3 General Quality Control	14,692	14,810	18,228	11,653	10,184
51.4 Community Meetings	2,943	1,611	1,844	2,745	2,739
51.5 Press and Community Relations	4,741	86	204	2,262	3,752
51.6 General Management	83,715	93,241	97,884	85,655	104,360
51.7 Program Research and Development	16,718	17,654	13,252	13,083	14,081
52. FINANCIAL MANAGEMENT	29,091	29,228	28,813	26,908	26,795
52.1 Budgeting and Cost Analysis	2,390	4,036	1,597	3,702	1,757
52.2 Financial Management - General	26,701	25,192	27,216	23,206	25,038
53. PERSONNEL AND ADMINISTRATIVE SERVICES	48,684	50,534	48,483	56,956	58,777
53.1 Personnel Services	8,915	9,498	9,836	10,966	15,633
53.2 Secretarial	21,023	21,647	22,601	24,838	20,008
53.3 Clerical	12,097	11,511	10,525	13,254	14,977
53.4 Purchasing and Maintenance	6,649	7,878	5,521	7,898	8,159
54. NONPERSONNEL EXPENDITURES	158,615	159,624	144,683	150,743	151,907
<u>TOTAL ADMINISTRATIVE SUPPORT</u>	387,749	392,100	389,024	387,395	409,085
<i>Total HAO</i>					
<u>TOTAL HAO</u>	909,150	823,135	796,315	909,927	816,568

SOURCE: HAO accounting records as of dates shown.

NOTES: Actual HAO staff work hours and expenditures were allocated to functions by methods defined in Section II of this note, the introduction to this appendix and Kingsley and Schlegel, 1979.

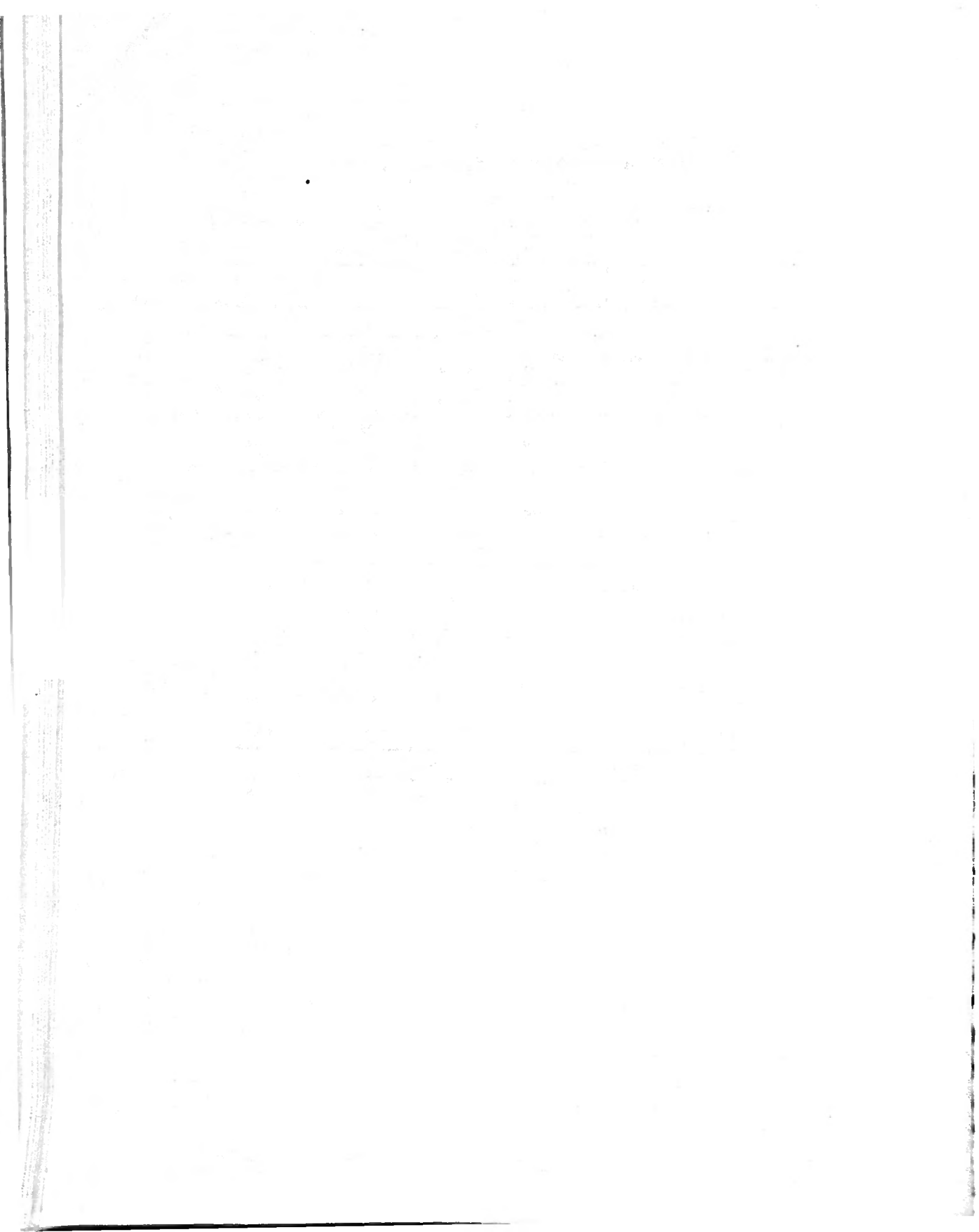
Table D.9

CAPITAL EXPENDITURES AND DEPRECIATION
(current \$)

Date	Administrative Expenditures		Operating Costs	
	Total	Capital	Total	Depre- ciation
<i>Brown County HAO</i>				
Prior to Open Enrollment	289,308	16,413	273,527	632
July-December 1974	641,138	86,939	561,375	7,176
January-June 1975	598,565	20,878	588,228	10,541
July 1975-March 1976	842,729	19,123	840,307	16,701
April-December 1976	808,504	4,029	821,700	17,225
January-June 1977	494,475	129	505,859	11,513
July-December 1977	521,760	2,243	527,959	8,442
January-June 1978	496,715	49	504,762	8,096
July-December 1978	520,426	9,957	518,890	8,421
January-June 1979	464,180	434	473,461	9,715
Through June 1979	5,677,800	160,194	5,616,068	98,462
<i>St. Joseph County HAO</i>				
Prior to Open Enrollment	573,234	155,745	423,260	5,771
April-September 1975	695,151	40,959	668,875	14,683
October 1975-March 1976	750,280	28,745	739,597	18,062
April-December 1976	1,215,142	12,599	1,230,421	27,878
January-June 1977	890,467	354	909,150	19,037
July-December 1977	810,101	5,692	823,135	18,725
January-June 1978	788,473	6,304	796,315	14,146
July-December 1978	930,058	35,756	909,927	15,625
January-June 1979	802,801	3,213	816,568	16,980
Through June 1979	7,455,707	289,367	7,317,248	150,908

SOURCE: HAO accounting records as of dates shown.

NOTES: Actual HAO staff work hours and expenditures were allocated to functions by methods defined in Section II of this note, the introduction to this appendix and Kingsley and Schlegel, 1979.



Appendix E

HAO ORGANIZATION AND STAFFING

Both the Brown County and St. Joseph County housing allowance offices had the same organizational structure through most of the experimental phase of program operations (Fig. E.1).

ORGANIZATION

HAO staffs were divided into two major divisions serving under the Office of the Director. Each division was divided into sections. The work of the sections did not always correspond exactly with the major HAO functions defined and explained in Sec. I, for reasons explained below. Basic work assignments were as follows:

Office of the Director

The HAO Director had a small immediate staff and was responsible for the overall management of HAO operations. The Public Information Officer, who directed outreach campaigns in addition to general public relations work, was in the Office of the Director.

Client Services Division

This division was responsible for the basic "client contact" functions of the HAO.

- The Client Services Section handled the collection of information from clients (interviews or mail-back questionnaires) in eligibility certification and recertification.
- The Certification Section was responsible for verification, staff data reviews, and submitting corrected means test forms for computer input. Having a separate staff section do this job offered extra protection; at least two people (the interviewer and the certification specialist) had to

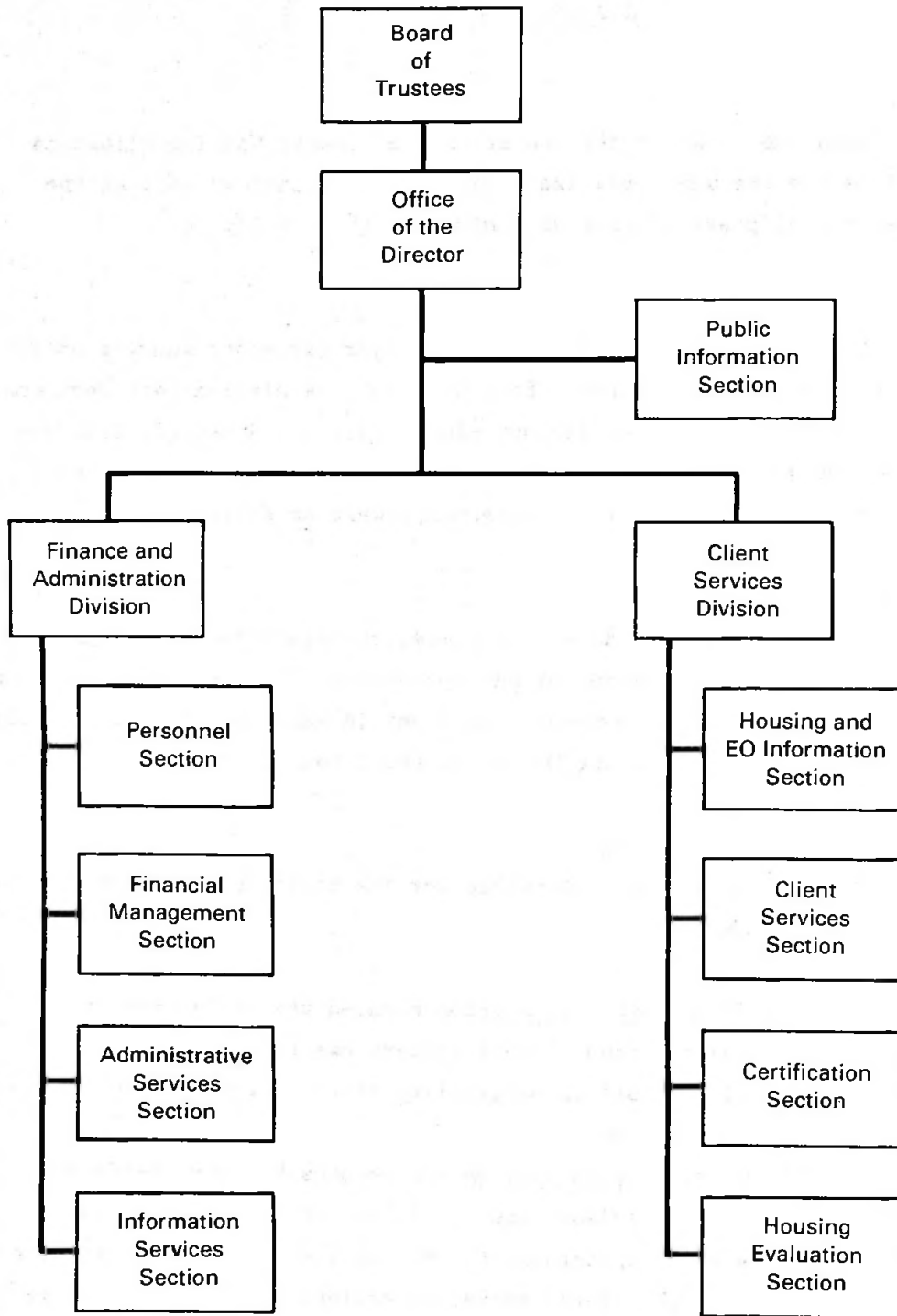


Fig. E.1—Housing Allowance Office organization

review the details of each case before payments could be authorized.

- The Housing Evaluation Section was responsible for evaluating client dwellings and performing all other work of the housing evaluation function defined earlier.
- The Housing and Equal Opportunity Information Section was responsible for providing limited services to clients to help them secure adequate housing.

Finance and Administrative Division

This division had the responsibility for basic HAO "housekeeping" functions, but because of its activities in the computer operations and payments functions, it offered additional checks to promote program integrity.

- The Financial Management Section maintained all HAO accounting records and reviewed payments transactions.
- The Information Services Section was responsible for all data-entry and computer-operations activities of the organization.
- The Personnel and the Administrative Services sections handled all normal personnel functions and activities, such as purchasing, inventory control, and office maintenance.

The HAO Board of Trustees

As noted earlier, the HAO Boards of Trustees were composed of both Rand Corporation employees and local citizens. During the experimental phase, the Boards normally met on a quarterly basis. In those meetings, they reviewed and discussed reports from HAO management on program accomplishments and financial status. They also made decisions on policy issues confronting the program. Many of these involved modifications of various program rules to fit changing circumstances. Between meetings, all Board members reviewed monthly reports submitted by the Director, and offered comments on operations mostly through their Board Chairman.

The Chairman of the Board in each site and the Rand Field and Program Operations Group Manager maintained weekly contact with the Director to discuss progress on work schedules and other management issues.

STAFFING

The data in Sec. II showed that HAO staffing levels varied with workloads over the first five years of program operations; and that the St. Joseph County HAO always had substantially more personnel than did the Brown County HAO. Table E.1 shows the allocation of staff in both HAOs by organizational unit in September 1977 (just after the steady-stage period began).

Although the staffing totals are quite different (43.1 FTEs for Brown County; 71.5 for St. Joseph County), the allocation of staff across sections is quite similar. In both HAOs, the Client Services Division dominated, with 61 to 63 percent of the work force. The Finance and Administration Division accounted for a slightly higher share in Brown County (22 vs. 19 percent). This is consistent with our earlier discussion of the need for more support staff at a smaller operating scale.

Table E.1

HOUSING ALLOWANCE OFFICE STAFFING:
SEPTEMBER 1977

Allocation of Staff	Brown County		St. Joseph County	
	FTE	Percent	FTE	Percent
<u>Office of the Director</u>				
Director	.9	2.1	1.0	1.4
Other staff	<u>1.0</u>	<u>2.3</u>	<u>5.1</u>	<u>7.1</u>
Total	1.9	4.4	6.1	8.5
<u>Client Services Division</u>				
Chief of Client Services	1.0	2.3	1.0	1.4
Client Services Supervisor	.9	2.1	1.0	1.4
Client Services Specialist II	2.0	4.7	1.9	2.7
Client Services Specialist I	8.4	19.5	8.6	12.0
Client Services Technician	1.9	4.4	4.3	6.0
Certification Supervisor	--	--	.8	1.1
Certification Specialist II	.7	1.6	1.0	1.4
Certification Specialist I	4.0	9.3	7.9	11.0
Certification Technician	--	--	.9	1.3
Housing Evaluation Supervisor	1.0	2.3	1.0	1.4
Housing Evaluation Specialist II	1.0	2.3	2.0	2.8
Housing Evaluation Specialist I	4.4	10.2	9.5	13.3
Housing Evaluation Technician	--	--	1.0	1.4
Housing Information Supervisor	1.0	2.3	1.0	1.4
Housing Information Specialist	--	--	1.9	2.7
Housing Information Technician	--	--	<u>1.0</u>	<u>1.4</u>
Total	<u>26.3</u>	<u>61.1</u>	<u>44.8</u>	<u>62.7</u>
<u>Finance and Administration Division</u>				
Chief of Finance and Administration	1.0	2.3	1.0	1.4
Financial Management Supervisor	1.0	2.3	1.0	1.4
Budget Manager	--	--	1.0	1.4
Accountants and Accounting Tech.	1.8	4.2	2.0	2.8
Personnel Supervisor	1.0	2.3	1.0	1.4
Personnel Technician	--	--	.9	1.3
Admin. Services Supervisor	1.0	2.3	1.0	1.4
Information Services Supervisor	1.0	2.3	1.0	1.4
Information Services Specialist	.9	2.1	1.0	1.4
Records Technician	.8	1.9	1.1	1.5
Data Processing Technicians	<u>1.0</u>	<u>2.3</u>	<u>2.2</u>	<u>3.1</u>
Total	9.5	22.0	13.2	18.5
<u>Secretarial/Clerical</u>	5.4	12.5	7.4	10.3
<u>Total Housing Allowance Office</u>	43.1	100.0	71.5	100.0

SOURCE: Housing Allowance Office of Brown County, Inc., Program Report, September 1977; South Bend Housing Allowance Office, Inc., Monthly Status Report for September 1977.

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REFERENCES

- Bendick, Marc, Jr., Abe Lavine, and Toby H. Campbell, The Anatomy of AFDC Errors, The Urban Institute, UI-5902-1, Washington, D.C., April 1978.
- Campbell, Toby H., and Marc Bendick, Jr., A Public Assistance Data Book, The Urban Institute, UI-5902-02, Washington, D.C., October 1977.
- Carter, Grace M., and Steven L. Balch, Measuring Eligibility and Participation in the Housing Assistance Supply Experiment, The Rand Corporation, R-2780-HUD, forthcoming.
- Coopers and Lybrand, Administrative Fee Study; Section 8 Existing Housing Program; Vol. I--Technical Report, Coopers and Lybrand, Washington, D.C., March 1981.
- Executive Office of the President, Office of Management and Budget, Appendix to The Budget of the United States Government, Fiscal Year 1978, Government Printing Office, Washington, D.C., p. 347.
- Fourth Annual Report of the Housing Assistance Supply Experiment, The Rand Corporation, R-2302-HUD, May 1978.
- Hamilton, William L., A Social Experiment in Program Administration: The Housing Allowance Administrative Agency Experiment, Abt Books, Cambridge, Mass., 1979.
- Hamilton, W.L., David W. Budding, and W. L. Holshouser, Jr., Administrative Procedures in a Housing Allowance Program: The Administrative Agency Experiment, Abt Associates, Inc., Cambridge, Mass., 28 March 1977.
- Holshouser, W. L., Jr., Administrative Procedures in a Housing Allowance Program: The Administrative Agency Experiment, Abt Associates, Cambridge, Mass., March 1977.
- Katagiri, Iao, and G. Thomas Kingsley, eds., The Housing Allowance Office Handbook, The Rand Corporation, N-1491-HUD, July 1980.
- Kershaw, David N., and Robertson G. Williams, Jr., "Administrative Lessons of the Experimental Housing Allowance Programs," in Katharine L. Bradbury and Anthony Downs, Do Housing Allowances Work?, The Brookings Institution, forthcoming.
- Kingsley, G. Thomas, Allowance Program Administration: Interim Findings, The Rand Corporation, N-1277-HUD, December 1979.

- Kingsley, G. Thomas, and Priscilla M. Schlegel, Analyzing Allowance Program Administrative Costs: Account Structures and Methodology, The Rand Corporation, N-1276-HUD, December 1979.
- Kingsley, G. Thomas, Sheila Nataraj Kirby, and W. Eugene Rizor, Housing Allowance Program Administration: Findings from the Supply Experiment, The Rand Corporation, N-1846-HUD, forthcoming.
- Maloy, Charles M., J. Patrick Madden, et al., Administrative Costs in a Housing Allowance Program: Two-Year Costs in the Administrative Agency Experiment, Abt Associates, Inc., Cambridge, Mass., 1 February 1977.
- McCarthy, Kevin F., The Household Life Cycle and Housing Choices, The Rand Corporation, P-5565, January 1976.
- McDowell, James L., Effects of the HAO Lead-Based Paint Hazard Standard, The Rand Corporation, N-1306-1-HUD, June 1980.
- McDowell, James L., Housing Allowances and Housing Improvement: Early Findings, The Rand Corporation, N-1198-HUD, September 1979.
- Mulford, John E., Income Elasticity of Housing Demand, The Rand Corporation, R-2449-HUD, July 1979.
- Rizor, W. Eugene, Eligibility Certification in a Housing Allowance Program, The Rand Corporation, N-1740-HUD, forthcoming.
- Sixth Annual Report of the Housing Assistance Supply Experiment, The Rand Corporation, R-2544-HUD, May 1980.
- Struyk, Raymond J., A New System for Public Housing: Salvaging a National Resource, The Urban Institute, Washington, D.C., 1980.
- Tebbetts, Paul E., Controlling Errors in Allowance Program Administration, The Rand Corporation, N-1145-HUD, August 1979.
- Third Annual Report of the Housing Assistance Supply Experiment, The Rand Corporation, R-2151-HUD, February 1977.
- U.S. Department of Housing and Urban Development, Experimental Housing Allowance Office Program, A 1979 Report of Findings, U.S. Department of Housing and Urban Development, Office of Policy Development and Research, Division of Housing Assistance Research, Government Printing Office, Washington, D.C., 1979.
- U.S. Department of Housing and Urban Development, Experimental Housing Allowance Program Conclusions: The 1980 Report, U.S. Department of Housing and Urban Development, Office of Policy Development and Research, Division of Housing Assistance Research, Government Printing Office, Washington, D.C., February 1980.

Wang, Ann W., User's Guide to HASE Data, Vol. 3: The Program Files,
The Rand Corporation, R-2692/3-HUD, April 1982.

Wynn, Mark, "Costs of Functions Performed in the Section 8 Existing
Housing Program," Unpublished paper, U.S. Department of Housing and
Urban Development, Office of Policy Development and Research,
February 1981.

Zais, James P., and John Trutko, Integrated Analysis of Administration
of Housing Allowance Programs, The Urban Institute, WP-216-31,
Washington, D.C., September 1976.