N-1740-HUD

June 1982

ELIGIBILITY CERTIFICATION IN A HOUSING ALLOWANCE PROGRAM

W. Eugene Rizor

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.

Rand
SANTA MONICA, CA. 90406

Published by The Rand Corporation

N-1740-HUD

June 1982

ELIGIBILITY CERTIFICATION IN A HOUSING ALLOWANCE PROGRAM

W. Eugene Rizor

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.

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 the eligibility certification system used in the housing allowance programs operated as a part of the Housing Assistance Supply Experiment (HASE); it also examines the administration of that system by the Housing Allowance Offices (HAOs) in two sites--St. Joseph County, Indiana, and Brown County, Wisconsin.

This study examines HASE definitions, rules, and procedures for: (1) determining eligibility and benefit levels, (2) eliciting from participants information needed to determine eligibility, (3) monitoring changes in eligibility over time, and (4) controlling errors in eligibility and payment determinations. It evaluates the effectiveness of the HASE procedures as well as alternative procedures and suggests the applicability of HASE experience to other housing assistance and benefit programs.

SUMMARY

Housing allowance programs were established in Brown County, Wisconsin (metropolitan Green Bay), and St. Joseph County, Indiana (metropolitan South Bend), for the Housing Assistance Supply Experiment (HASE). The experiment was conducted by The Rand Corporation and was sponsored by the U.S. Department of Housing and Urban Development (HUD).

The program made monthly payments directly to low- and moderate-income households to help them obtain adequate housing. All eligible renters and homeowners could enroll in the program and live in any housing they chose in the program area, but to receive assistance their dwellings had to meet program housing quality standards.

The program's 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. It provided data over a longer period of program operation (five years) than is typical of other experimental programs. During this period of experimental operation, 27,800 eligible households enrolled in the two communities, and payments were made to 23,100 households.

This note examines the HASE eligibilty certification system and its administration by the Housing Allowance Offices (HAOs), nonprofit corporations created to operate the allowance program. The eligibility certification system is the set of rules and procedures used to: (1) define program eligibility and benefit amounts, (2) elicit information from clients needed to determine eligibility and benefits, (3) periodi-

cally redetermine eligibility, and (4) ensure the accuracy of eligibility and benefit determinations. While there are significant differences in the procedures used among the different benefit programs, all programs basing eligibility and benefit amounts on household means use an eligibility certification system that contains all four elements.

The eligibility certification system is very important to a program's ability to meet its purposes; the system defines eligibility and determines, in large part, a program's ability to target benefits to those for whom they are intended. It is in the administration of this system that most errors in benefit payments occur. Furthermore, the cost of administering these functions is the highest single administrative expenditure.

This note provides criteria for evaluating eligibility certification systems and then examines each of the four elements of the HASE system and its administration by the HAOs. It examines what appear to be the keys to HASE administrative performance, the cost efficiency of key elements of the HASE system, and some alternatives to HASE procedures. It also suggests how HASE results might apply to the design of a housing allowance program, including some actions that the current HAOs might consider, and which could improve the accuracy and cost effectiveness of procedures used by other benefit programs in their eligibility certification systems. Finally, it offers suggestions for further research on promising alternative procedures that may improve effectiveness and reduce costs.

The HASE experience and data should be useful to administrators of other benefit programs in evaluating alternative procedures and for

understanding the effects of differences in behavior for different client groups. HASE provides data on costs and workloads in a large program over a five-year period, including a considerable period of steady-state program operation not often researched by experimental programs. The HAOs made accurate and timely payments to clients over that period, reviewed eligibility more frequently, and employed more extensive error detection techniques than is typical of other housing programs; yet the administrative costs compare quite favorably with other housing programs and with comparable functions in other benefit programs. Analysis of these results and the factors that were key to this performance should be useful in considering alternative procedures for other programs.

The HASE data do not permit measurement of alternative eligibility definitions or initial elicitation procedures, but the data do provide an opportunity to estimate the effects of alternatives for the frequency and form of eligibility recertifications and of various error control techniques. Where data do not exist, the note provides judgments based on experience with HASE allowance programs in the hope that they will be useful to designers and administrators of other benefit programs.

CRITERIA FOR EVALUATION

Though benefit programs vary considerably in the procedures they use, a set of standard criteria can be applied to measure the effectiveness of each:

- Accuracy of benefits. There are two types of accuracy in evaluating eligibility certification systems. The first is

accuracy of the rules and procedures themselves in measuring household means. How well does the program's measurement of means compare with actual household means at the time of the eligibility determination and as household circumstances change over time? The second is the accuracy of compliance with those rules and procedures by participants and the administering agencies. What are the error rates and how do they affect benefit costs and program equity?

- Participant burden. Program requirements for clients vary in the time, effort, and capabilities required to comply with these rules. The burden of these requirements can cause eligible households not to participate if they consider the costs too high. Complicated reporting requirements may prevent some participants (e.g., some handicapped and elderly persons) from complying. The result may be client errors, which cause additional hardships for the clients (who must repay overpayments) and additional work for the agency, which then has the additional tasks of bookkeeping and collection. Participants are also unfairly burdened when they cannot depend on receiving the correct amount of benefits on time or when they are not properly treated by employees of the agencies.
- Administrative efficiency. The costs of administering various elements of the eligibility certification system should be reasonable and should bear some relationship to the effects of the procedures in achieving program goals. In general, do the

administrative costs justify the procedure, or do program results suggest that new or altered procedures be implemented?

MAJOR THEMES OF THE HASE SYSTEM

The HASE eligibility certification system reflects a variety of environmental features and program objectives, including:

- The research required that data be collected beyond that normally required to determine eligibility and that all data collected be highly accurate for use in the research.
- The programs were very large for communities of their size, and it was very important that steps be taken to assure the integrity of the program.
- With homeowner participation, a wider variety of clients with more complicated incomes and assets than is typical for other benefit programs were eligible.
- The research was designed to measure client response to the basic features of the program; for this to be monitored accurately, it was essential that participation not be reduced because of poor treatment of clients or by rules and requirements not essential to the basic design of the program.
- It was important to control costs so that an evaluation could be made of the feasibility of administering a nonexperimental housing allowance program.

Several themes in the design of the HASE eligibility certification system reflect attempts to meet and balance these objectives. These include:

- Use of detailed definitions and procedures. The HAOs used more detailed definitions and procedures than are typical for other housing assistance programs, and the HAOs were not permitted to make exceptions to those rules. This resulted in consistent treatment of clients with similar circumstances.
- Emphasis on hard-copy documentation. Clients were encouraged to provide documentation for their eligibility, and HAO rules for estimating future income were based on the type of documentation available. Such hard-copy documentation facilitated error monitoring techniques and enabled the HAOs to substantially reduce the workload of third-party verifications.
- Careful design of client reporting requirements. The reporting requirements were designed to minimize client burdens and opportunities for error, and to promote the predictability of HAO workloads. With two very important exceptions (household moves and the loss of the head of household), clients did not have to report changes except when requested to do so by the HAO at a regular or special recertification. This helped minimize client reporting error and made the HAO workload more predictable, enabling more effective use of staff resources. However, to ensure program integrity, especially given the wider range of eligible clients, eligibility was recertified semiannually. (Other housing programs recertify eligibility annually.)
- Computer usage. The HAO system was computer-based to facilitate record maintenance for the large number of clients. The

computer maintained a current and historical record for each client, printed allowance payment checks, produced management information reports, printed various forms and mailing labels, identified cases scheduled for particular reviews, monitored to ensure timely processing of each required transaction, and edited inputs to help ensure accuracy.

- Selective case action. To control administrative costs, the HASE system attempted to limit processing for cases where the resulting change would not affect eligibility and was not likely to have a large effect on payment amounts. One example is the use of a sampling system rather than a blanket procedure for third-party verifications. Others include: (1) a requirement that applicants be eligible for a minimum payment of $10 per month at enrollment, (2) not counting cash on hand or checking accounts as assets unless the amount was greater than $250, (3) not processing some recertifications as changes to payments unless payments were affected by at least $10 per month, and (4) not processing potential verification errors as changes unless the likely change to payments was $10 or more per month.
- Error control. To provide accurate data for research and to protect the integrity of the programs in the communities, the HAOs used extensive techniques to prevent and detect errors.

ELIGIBILITY DEFINITIONS

Most administrative research on benefit programs has concentrated on the accuracy and cost of administering a set of program eligibility definitions (and occasionally of alternative procedures), but seldom have the definitions of eligibility themselves been examined for their effect on program and administrative costs and their effectiveness in targeting benefits to those for whom the programs are intended. The questions of interest are:

- To what extent do definitions of eligibility allow participation by, but also restrict it to, those for whom the program was intended?
- How accurately do program definitions for determining or estimating income and assets reflect actual income and assets?
- What are the effects of particular definitions, compared to other alternatives, on program benefit costs?
- What are the effects of the definitions, and of alternative definitions, on administrative costs?

Throughout the experiment, the HAOs used a single set of eligibility definitions. Some changes were made to program standards and some rules and procedures were refined and clarified, but the key standards and procedures remained essentially the same for the full five years. As a result, HASE data do not permit measurement of the effects of other alternatives. In addition, data were not collected on actual past income that would permit evaluating the accuracy of the HAO definitions for estimating income.

These are important limitations, but judgments are offered based on HASE about what appeared to be the most important features and about alternatives used in other programs or discussed in the literature. Key elements of the HASE eligibility definitions are judged to be:

- Detailed operational definitions for HAO staff and prohibition of exceptions to the rules are judged to have resulted in consistent treatment of clients with fewer expensive deliberations on a case-by-case basis.
- Definitions most important for program accuracy are those for determining household income; HASE guidelines provided rules for identifying categories of income and then provided detailed rules for documenting and estimating income for each category. It is easy to miss whole sources or important variations in sources if these rules are not carefully designed.
- The use of prospective accounting (current and past income are used to estimate future income) is judged more appropriate for housing assistance programs than retrospective accounting (past income is used to determine current benefits) because of the more frequent eligibility reviews or the special reconciliation procedures required by retrospective accounting to assure that current benefits reflect current needs for assistance.
- HASE rules for estimating income and assets were based on the documentation available. HASE rules emphasized that all income had to be documented or documentable with a third-party; guesses about future changes were discouraged.

ELICITATION PROCEDURES

Typical methods of eliciting from clients data needed to determine eligibility and benefits are interviews and self-administered forms. Interviews are generally more expensive but also more likely to be accurate. A distinction is made between the eliciting at enrollment and at recertifications of eligibility. This note argues that a carefully designed interview is appropriate for the initial elicitation despite the additional costs. This interview allows the agency to ensure a minimum level of understanding by clients of their obligations and rights, and it ensures that other important program messages are understood. Such an understanding can avoid later costs for both the agency and clients.

With such a system, it is important that costly interviews for ineligibles be avoided. The HAOs used extensive screening procedures, usually by telephone, which were judged effective in reducing interviews for ineligibles while not screening out eligibles.

The HAOs used a single type of initial elicitation, so data are not available to evaluate alternatives. However, HASE experience is used to identify what are judged to be the important features of the experience that may be useful in other programs and in designing tests of alternative procedures.

The HASE interviews used the following:

- A well-trained staff that probed inconsistencies in client reports and examined rules of other benefit programs (e.g., AFDC and SSI) so that they could identify when benefits from those programs did not reflect the information on income,

assets, and household composition supplied by the clients for the allowance program.

- Staff members used a carefully designed elicitation form that used survey research techniques to help ensure that all questions were asked; the form was formatted to provide worksheets so that an audit could be used to check the accuracy of calculations and application of program rules.
- Clients were encouraged to provide documentation, which was used to calculate income and assets wherever possible, to reduce reliance on the client's memory, and to ensure that gross income rather than take-home pay was used as required by the program.

Careful interviews were the most important feature of the HASE system for error control. Even though the HAOs used very extensive error detection systems, client error was very low compared to other programs.

The interview was particularly important for preventing unintentional errors because it increased the likelihood that all sources of income and all assets were reported. Error detection techniques are generally good at detecting errors in the amount for sources reported by clients, but are less successful in identifying sources that clients fail to report at all.

FREQUENCY OF RECERTIFICATION

HASE conducted regular semiannual reviews of eligibility and benefits for all clients. These included complete annual interviews similar to the initial elicitation and semiannual questionnaires to update

household composition and income. Those were considered frequent enough to reflect most major changes close to the time of occurrence while achieving a reasonable administrative cost and a not unreasonable burden for the client.

The HASE system was designed to reduce unscheduled reporting by clients between regular recertifications. This enabled the HAOs to predict their workloads, thus reducing costs by avoiding slack resources and heavy use of overtime or crash training programs. It was also designed to reduce client reporting errors by limiting reporting requirements to very few items, except when scheduled and requested by the HAOs.

Clients were required to report some changes as they occurred: moves had to be reported before they occurred so that the new housing could be evaluated, avoiding erroneous payments and breaks in payments; and the loss of the head of household, with whom the HAO had its contract, had to be reported immediately so that a new contract could be executed to avoid erroneous payments and breaks in payments.

Clients could also request special recertifications for hardships due to loss of income or changes in household composition. However, processing such special reviews was generally limited to situations in which payments were affected by at least $10 per month; such a system limited processing to cases considered worth the processing costs.

Special reviews were also scheduled by the HAOs, but these were strictly limited to cases in which the clients reported: (1) zero adjusted gross income or (2) the loss of a major source of income within the past 90 days without a replacement source. These were situations in

which the likelihood of large changes was considered high enough to warrant more frequent reviews. Reviews were processed as changes to payments only when the effect on payments was at least $10 per month.

During the final two years of the program, the HAOs performed 43,600 recertifications of eligibility (about 650 per month for Brown County and about 1,150 per month for St. Joseph County). More than half were semiannual reviews, about 40 percent were annual recertifications and only 6 percent were special recertifications. Of the regular recertifications (i.e., semiannual and annual) for recipients, 10 to 15 percent resulted in terminations, usually because of income ineligibility. Overall, the regular recertifications resulted in reductions in payments for two clients for each one that resulted in increased payments. Therefore, recertifications not only increased equity, but they also reduced benefit costs. During the two-year period, the average gross change in the monthly payment per semiannual recertification was about $20 per month, and the average net change (program savings) was about $15 per month. Annual recertifications resulted in an average gross change in monthly benefits of about $21 per month and an average net change of $15.

About 60 percent of the special recertifications processed were requested by clients and resulted in increased benefits; the 40 percent initiated by the HAOs resulted in reduced payments. The average gross change was about $58 per month, but the average net payment change was an average reduction of $2 in Brown County and an average increase of $12 in St. Joseph County.

In general, the costs of processing regular recertifications were less than the net savings in program benefits from recertifications when savings from the recertifications are projected for the six-month period to the next regular review. Brown County spent about $24 per semiannual recertification and saved an average of $75. St. Joseph County spent only $14 and saved $110. For annual recertifications, Brown County spent $64 and saved $92 and St. Joseph County spent $55 to save $95.

While the processing was cost effective for all clients, the net changes in payments to elderly clients alone were generally not as great as the average costs of processing; net savings from recertifying nonelderly households were much larger than the average for all clients. These differences suggest that the frequency and form of recertifications should vary between client groups. Given the HAO costs for processing recertifications, it is likely that a more cost effective system would have been annual reviews for the elderly (alternating between interviews and mail-back questionnaires) and quarterly reviews for nonelderly households (annual interviews and quarterly questionnaires).

ERROR CONTROL

Because of research requirements for additional and highly accurate data, the HAOs used much more extensive error prevention and detection procedures than are typical for other benefit programs. For the most part, these were designed into normal processing from the beginning of the program, helping to emphasize the importance of error control for HAO managers and staff.

Error detection techniques were very effective in detecting and correcting most errors, but the most important feature of the HAO system was its success in error prevention through its elicitation procedures and forms. However, the preventive effects of a substantial error detection system should not be underestimated. It encourages accurate reporting and processing by both clients and staff when the probability of detection appears high.

The HAOs used six error detection techniques: two each for detecting client error and staff error and two designed to detect either type of error. These techniques were:

- Third-party verification. Checks with third parties to verify the accuracy of client reports.
- Misreporting reviews. Special review procedures for cases in which misreporting was suspected by a staff member, reported by a third-party, or client circumstances (e.g., continued unusually low income) indicated a likelihood of misreporting.
- Manual data reviews. All enrollment and recertification transactions were independently reviewed by a staff member to determine that staff calculations were correct and that program rules had been properly applied.
- Quality control reviews. A sample of transactions was selected each month for a special review to determine that all program requirements had been met.
- Comparing data at recertifications. At each recertification, the information reported by the client was compared with that from the past recertification; all major changes had to be

explained to determine that the past client report had been correct and to determine that the HAO staff member had properly interpreted the documentation and applied the rules.

- Independent audits. Each year as a part of its financial audit, each HAO also contracted for an audit of the accuracy of payments made to a random sample of recipients. This audit tested the adequacy of program procedures and HAO application of those procedures in preventing and detecting client and staff errors.

Third-party Verifications

At the interviews, the clients were asked to provide documentation for all items of eligibility. For undocumented items, they were required to sign consent-to-release information forms, enabling the HAO to contact third parties to confirm the accuracy of the client's report. The HAOs then performed third-party verifications on a sample of cases; the probability of selection for verifications was generally based on the percentage of total income supported by hard-copy documentation. The larger the portion of total income documented, the lower the probability of verification. But the HAO emphasis on documentation would have reduced the verification workload even if all cases were selected because many sources would not have required verification.

As a result of the sampling procedure, about half of all Brown County enrollments and annual recertifications were verified; about 40 percent were verified in St. Joseph County. For semiannual and special recertifications, sample assignment was based on the size of the change

reported by the clients. The larger the change, the greater the probability of selection for verification. The sites verified only about 7 percent of semiannual reviews but about half of all special recertifications.

Verification rates varied little by tenure but varied considerably between elderly and nonelderly clients. For both sites, but particularly for Brown County, a much higher percentage of elderly clients were verified at enrollment and annual recertifications. The principal reason for this high rate was the lack of acceptable documentation, except for the benefit check itself, for Social Security and SSI.

In general, the sampling system worked well in that most client errors were discovered by verifying only half or fewer of the cases. For example, client errors are estimated to have occurred in about 3 percent of the enrollment interviews in Brown County. The verification procedure detected and corrected 90 percent of that error, leaving uncorrected errors in only about 0.3 percent of the enrollments. Verifications were not always so successful, but undetected errors after verification were estimated to have occurred in fewer than 1.0 percent of the cases.

When the amount of payments in error is compared to the average annual allowance payment, the errors represent a very small percent of total payments. For all enrollments and annual recertifications the total payment error (before verification) is estimated to be 0.6 percent or less of the average annual allowance payment. For Brown County enrollments, the estimate of total error is an average of $2.96 per year per recipient or about 0.4 of the average annual payment. Of this

error, 99 percent was detected by verification. For other procedures the total error before verification was somewhat higher, but not higher than 0.6 percent of the average payment. The largest average undetected error is estimated to be less than 0.4 percent of the average annual payment.

For both sites, verification detected more total payment error than was represented by the costs of the verification. However, compared to the average net error detected (i.e., net program savings from the procedure), verifications cost more than they saved in Brown County and saved only a little more than they cost in St. Joseph County. But in neither site did the average verification for elderly households save as much as it cost, while the average verification for nonelderly households saved more than it cost.

These results indicate the promise of the HASE system for selecting cases for verification based on documentation, but they also indicate that further improvements are possible, particularly in reducing verifications for elderly clients. It is likely that sampling criteria can be improved by using alternative criteria for elderly households. Moreover, an information system that enables ongoing analysis of verification errors and their causes could lead to even more cost effective sampling systems by reducing the percent of cases verified without reducing the percent of the total errors detected.

Misreporting Reviews

Over the final three years of the experiment, the HAOs completed reviews of 686 cases through their misreporting review procedures.

These reviews resulted from referrals by staff members, complaints by third parties, or because household circumstances indicated that misreporting may have occurred. About 30 percent of these reviews resulted in a determination that a client error had occurred, and 75 cases (37 percent of those with misreporting errors) were referred to HUD for review for possible fraud.

The HUD Office of the Inspector General reviewed these referrals and often performed follow-up investigations. Some cases were closed for lack of evidence, because clients were making restitution, or because the amount involved did not warrant the costs of prosecution. Some cases were forwarded by HUD to the Justice Department for further review and possible prosecution. Only two cases, both in St. Joseph County, were actually prosecuted; however, the reviews and contacts by HUD and FBI investigators were successful in other cases in obtaining satisfactory agreements for repayment by the clients.

In all cases of misreporting or other cases involving any overpayment due to client error, the HAOs attempted to collect the amount owed. Through the five years of the program, a total of $380,000 was paid in error because of client errors; this represents about 1.2 percent of total allowance payments. Of that amount, 75 percent had been collected by the HAOs at the end of the period; collection was still being attempted for 11 percent, and 14 percent had been written off as uncollectible.

Manual Data Reviews

All enrollments and recertifications were separately reviewed by another staff member prior to computer processing. In addition, the computer system itself performed certain edits of the information entered to check calculations, to ensure that certain items were consistent with others, and to determine that all required data fields contained acceptable entries.

Unlike verification, manual data review was a blanket procedure that did not vary based on client characteristics or other features that indicated a greater potential for error. Relatively high rates of errors were detected by the procedure, ranging from 40 to 60 percent, but most of these did not involve errors in allowance payments (e.g., coding errors, missing entries). The largest rate of cases with payment errors was for Brown County enrollments, where payment errors were discovered in 11 percent of the cases. However, about half of these errors involved payment errors of less than $1 per month. Overall, the gross error detected averaged from $4 to $13 per year per case processed for enrollments and annual recertifications. However, the net savings in allowance payments represented by the net error averaged less than $1 per year per case in both sites for annual recertifications and up to about $4.50 per year for Brown County enrollments. In none of the cases was this procedure cost effective by saving more than it cost to administer; in fact, in only one case (St. Joseph County enrollments) was the average gross error detected greater than the cost of the average review.

Discontinuing manual data reviews is recommended, with perhaps an increase in the sample size for quality control reviews. Manual data reviews might then be used on a more targeted basis (e.g., for new employees, employees with high error rates, and error-prone cases).

Quality Control Reviews

To measure undetected staff error, the HAOs used a separate quality control review procedure at the end of all processing. For annual recertifications and enrollments, the results of this procedure indicate that the uncorrected gross error averaged from $2 to $5 per year. The average net error ranged from an *underpayment* of $1.50 per year to an *overpayment* of $5 per year.

Taken together, it is estimated that staff payment errors at enrollments and annual recertifications, before corrections from manual data reviews, averaged from 7 to 10 pecent of the cases. Most of that error was corrected by the manual data review process, leaving payment errors in only about 1 to 5 percent of the cases. This uncorrected error represented less than 0.6 percent of the average annual payment.

Comparing Sequential Recertifications

The HAOs compared the data provided by clients at each recertification with that supplied for the previous recertification. The purpose was to determine that previously reported sources had not been missed or that currently reported sources had not been missed at the previous recertification. Formal rules were developed for identifying situations that required special explanations or documentation to ensure that

misreporting had not occurred. Explanations were also required when total household income was below certain thresholds, indicating either misreporting or great difficulty in devoting allowance payments to meeting housing expenses. These procedures identified some past errors and prevented other errors. The data do not permit identification of the number of errors detected or prevented by these procedures, but a review of cases assigned for collection revealed a number of instances in which errors were detected at one recertification that had occurred at enrollment or an earlier recertification.

Independent Audits

Each HAO contracted with an independent audit firm to perform annual financial audits and audits of the accuracy of payments to a sample of recipients. This payment audit procedure was designed to examine the adequacy of system procedures for ensuring overall accuracy and for the accuracy of their implementation by the HAOs. This was an important procedure because it provided an independent view of the HAO system and helped maintain the confidence of the HAO trustees and the community in the quality of program operation. These audits also suggested improvements to HAO procedures and further focused staff attention on error control.

An additional special audit was conducted at each site to test the accuracy of client reports and client-provided documentation. This audit, involving samples of 100 cases per site, found one case of suspected intentional misreporting and no cases of forged documentation. Thirteen cases of unintentional client error and four cases of staff

error were detected which caused payment errors. These cases indicate gross payment error of less than 85 cents per month per case in the samples; however, because two of the cases (including the one with the largest error) involved underpayments, the average net payment error was less than 20 cents per month per case.

ACKNOWLEDGMENTS

The author is indebted to many individuals who helped prepare the data that were used in this research. The research relies heavily on data from the automated Management Information System and the General Error Monitoring System maintained by the Housing Allowance Offices (HAOs) in St. Joseph County, Indiana, and Brown County, Wisconsin. Other data were provided by the staff of the HAOs, who generously helped Rand staff collect special data from HAO client files. Special appreciation is due the Directors of the two HAOs: Hollis E. Hughes, Jr. (St. Joseph County) and Lars Larson (Brown County). Additional HAO staff members who made special contributions to the data collection effort were Timothy Corcoran, Arland Adkins, Mary Alexander, Cathy Bolinger, Roger Crastil, and Dorothy Parchem in St. Joseph County; and Jarvis Woulf, Roy Diedrich, William Franken, Julie Kostrowski, and Katheryn Van Den Berg in Brown County. The effort and cooperation of the management and staff at both HAOs were exceptional and much appreciated.

I wish to thank Rand colleagues Iao Katagiri and Lawrence Schlereth for collecting sample data on third-party verifications; Sheila Nataraj Kirby for her assistance with the HAO Error Monitoring System data; Robert Young for his assistance in data processing; and Priscilla Schlegel for her assistance with HAO cost data. Paul E. Tebbets deserves thanks for his earlier work on error control and for initiating data collection that aided this research.

Special acknowledgment is due G. Thomas Kingsley, who provided advice and support throughout the research and who reviewed earlier

drafts. Ms. Katagiri of Rand, and Judson James and Howard Hammerman of HUD also reviewed earlier drafts; their criticisms and suggestions led to several improvements in the analysis and its presentation.

I owe special thanks to Luetta Pope, who so expertly prepared the many tables and portions of the transcript, and to Nancy L. Davis, who prepared portions of the transcript.

Many persons deserve recognition for their contribution to the design, monitoring, refinement and implementation of the eligibility certification and management information systems. Mr. Kingsley, as Deputy Director and later Director of HASE, was the principal arbiter of the design of the system. Important contributors to the design of the systems include Deborah Both, Earl Carter, Sylvia Correa, Robert Dubinsky, Alan Greenwald, Aslan Palachi, Michael Shea, Robert Tabor and Karen Goldfarb Watson. Other contributors to improving and clarifying program rules and procedures were Ms. Katagiri, Ms. Kirby and Mr. Tebbets. In addition, the managers and staff of the HAOs deserve recognition for their contributions to the design, refinement and operation of the system.

Special recognition is also due Ira S. Lowry, Principal Investigator for HASE, who was unusually sensitive to the administrative implications of his research design.

CONTENTS

FIGURES

TABLES

I. INTRODUCTION

Over the past two decades controlling costs and errors has been emphasized in a variety of public assistance programs including Aid to Dependent Children (AFDC), Supplemental Security Income (SSI), Food Stamp Program, and a number of assisted housing programs. This emphasis is in part a response to rapid increases in participation and costs in these programs and in part to a public perception of widespread "fraud, abuse and mismanagement."[1]

The perception of widespread error and mismanagement threatens public support for these benefit programs. Public evaluation now appears to be based as much on the perceived abuses of the programs as on the needs of those for whom the programs were intended. It is undoubtedly easier to generate support for cutting these programs because of this perception of widespread abuse.

Despite increasing emphasis on controlling costs and improving administrative performance, there has been little systematic research on the determinants of costs and administrative performance in benefit programs. Many attempts have been made to improve performance, with varying degrees of success, but few have been informed by careful tests of alternatives. We believe that the most important reason for this is that only recently have analysts and policymakers begun to understand that seemingly minor changes in rules or procedures can have substantial

[1] For example, a Gallup Poll in 1977 asked respondents an open-ended question about the changes, if any, they would like to see made in the way welfare is handled in this country. More than half (52 percent) indicated that there should be better investigation and screening for eligibility. (Gallup, 1978.)

effects on both program and administrative costs. To analyze these effects, other procedures must have a set of controls that can isolate the effects of planned procedural variations; these controls are difficult to design and implement. Other data problems exist, particularly in reliably disaggregating costs to allow more precise measurement of the effects of procedural changes.

Four experimental efforts from which valuable administrative lessons have been learned, or are being learned, are the Income Maintenance Experiment, the Administrative Agency Experiment (AAE), the AFDC Monthly Income Reporting Experiments, and the Housing Assistance Supply Experiment (HASE).[2] The Income Maintenance Experiment's principal contribution to administrative research was to show that seemingly minor differences in definitions and procedures can have significant effects on program outcomes, to the point that analysis of the planned experimental treatments may be complicated by the procedural differences.[3]

The AAE, a part of HUD's Experimental Housing Allowance Program, was perhaps the first demonstration designed to test alternative administrative arrangements for a benefit program. It examined differences in administrative practices and outcomes among eight small housing allowance programs operated by different types of agencies over a three-year period. The AAE contributed to improved understanding of the

---

[2] Another development in recent years deserving special attention for its contribution to our understanding of the effects of procedures and other determinants of costs is the quality control system for the AFDC, SSI, and Food Stamp programs. Automation of these error data and other program data permits analysis of the rates, types, causes and costs of errors. This analysis has led to a number of important steps to improve the programs and their administration by better targeting benefits and controlling errors and costs.

[3] See Kershaw and Fair, 1976, Chapter 6.

effects of alternative procedures, but it suffered from the lack of sufficient controls to isolate the effects of alternative procedures.[4]

The U.S. Department of Health and Human Services (HHS) is currently conducting monthly income reporting experiments for the AFDC Program.[5] These experiments are designed to test the outcomes of a single alternative to processing eligibility redeterminations.

This report examines aspects of the administrative performance of the two full-scale housing allowance programs operated as a part of the Housing Assistance Supply Experiment (HASE). These programs performed administrative functions similar to those in other public assistance programs (e.g., determine eligibility and benefit levels, distribute monthly benefits, recertify eligibility periodically). They were unique, however, in that unusually complete administrative records were kept of costs, workloads, and errors. Their scale and duration were also unique among social experiments--30,000 households were enrolled over the first five years of program operation in only two communities: St. Joseph County, Indiana, and Brown County, Wisconsin.

This report examines the eligibility certification system used for the housing allowance programs. It describes and evaluates the definitions, rules, and procedures for determining eligibility; procedures for eliciting eligibility information from applicants; procedures for moni-

---

[4] For a description of the administrative analysis and findings from the Administrative Agency Experiment, see Dickson et al., 1977; and Hamilton, 1979. For a discussion of the limitations on the AAE analysis because of the inability to provide adequate controls to evaluate the procedural variations, see Kershaw and Williams in Bradbury and Downs (eds.), 1981.

[5] For early results from this experiment see Williams et al., 1979.

toring changes in eligibility over time; and methods for preventing and detecting errors in benefit payments. A companion study (Kingsley and Schlegel, 1982) reports more completely on program costs and the determinants of those costs.

HASE provides quality data on the outcomes and costs of an eligibility certification system that was administered under tight administrative controls over a period of five years, which was able to achieve very low error rates and low administrative costs per unit of service as compared to other assistance programs. An examination of this effort should be useful to program designers and administrators in understanding the factors that influence costs and in evaluating design features and administrative practices that may improve performance in other programs.

However, there are limitations on using HASE results to predict outcomes from similar procedures in other programs or in a national housing allowance program. HASE results show the effectiveness and outcomes of a single set of procedures, but because no opportunity to test alternative procedures in controlled situations existed, we cannot precisely identify the importance of specific procedures for overall costs and error control results. The major objective of HASE was to observe the market response to a single housing allowance program that was most like what a national program might be (at least as it was being discussed in the early 1970s). Procedural variations would have complicated the analysis of the principal research questions.

It is also unlikely that the performance of the two local agencies operating the experimental programs can be replicated on a national

scale. The excitement of participation in an experiment aided recruiting (although 95 percent of the staff were recruited locally), and the public attention focused on the program provided special incentives to managers and staff that affected their performance. Also, with only two sites, the amount of monitoring by Rand and HUD was beyond that for normal operating programs. However, much of the success of the HAOs was due to program design and management features that could be implemented effectively in other benefit programs.

ELIGIBILITY CERTIFICATION SYSTEMS.

All benefit programs basing eligibility and benefit levels on the income, assets, and size of households must use a set of definitions, rules, and procedures for defining and determining eligibility. Here we use "eligibility certification" to encompass the full range of definitions, rules, and procedures for determining and certifying eligibility. Others have examined parts of this system and used other terms including "income accounting, income certification, and means test certification."[6]

All eligibility certification systems include four key elements, which may vary significantly in the emphasis given the elements and in the procedures used:

---

[6] The term "income accounting" is used by Allen (1973) and Zais et al. (1975) and "income certification" is used by Dickson et al. (1977) and Hamilton (1979). These terms tend to limit the focus to the income portion of the definitions and rules for determining eligibility. "Means test" is used by Tebbets (1979) to also include assets and household composition. "Eligibility certification" includes all aspects of program eligibility because any rule affecting the determination of eligibility and benefits can have some affect on benefits or administrative costs.

1. Eligibility definitions: The definitions, rules, and procedures for determining eligibility and benefit levels. These include the definitions for household composition, income, and assets; the formulae for determining eligibility and calculating benefits; and any other factors that affect participation.
2. Elicitation of eligibility information: The method of eliciting information from applicants and participants that is needed to make determinations of eligibility and benefits. The most common forms of elicitation are interviews, self-administered forms, mail-back questionnaires, and telephone interviews.
3. Frequency of eligibility redeterminations: The method and frequency of monitoring changes in eligibility and benefit entitlements over time. Programs review eligibility at different intervals: assisted housing programs typically review eligibility annually; SSI reviews eligibility annually and more frequently for certain error-prone households; and AFDC typically reviews eligibility semiannually but may require that certain changes be reported as they occur.
4. Error control: The methods used to prevent, detect, and correct errors. These include errors made by participants or staff members; both types may be either intentional (i.e., fraud) or unintentional. Examples of techniques used by benefit programs to control errors include third-party verifications, internal operating controls, quality control reviews, audits, and fraud investigations.

The eligibility certification system defines eligibility and determines, in large part, a program's ability to target benefits to those for whom they are intended. It is in the administration of this system that most errors occur that affect payments. Furthermore, administering this system accounts for most of the program's administrative costs. Understanding the effectiveness of various techniques, the factors that influence errors and costs, and differences between various client subpopulations should aid the administrators of other programs in their efforts to target benefits and reduce errors and costs.

CRITERIA FOR EVALUATING ELIGIBILITY CERTIFICATION SYSTEMS

Three common criteria are applied to evaluate eligibility certification systems: the accuracy of the benefits, the burden of the system's requirements on the participants, and the administrative efficiency of the system.

- Accuracy of benefits. How well does the measurement of household means resulting from program definitions and procedures reflect actual household means over the period of participation? Accuracy is affected both by the sensitivity of the rules themselves and by the quality of their administration. The level of accuracy affects program costs, participant equity, and program integrity.
- Participant burden. Are the requirements placed on participants (e.g., for reporting and documenting household means) within their ability to comply without undue costs to them in terms of their resources or dignity? Or do the requirements of

the administering agency generate hardships that cause eligible households not to participate?

- Administrative efficiency. Do the rules and procedures allow for administration of the means test at a reasonable cost? Are the procedures justified by the amount of the increases in program accuracy, participant equity, and participant burden? Do the error rates and amounts justify additional or modified procedures?

These criteria are often in conflict. The least burden for the participants and the least expensive program to administer could result in a very high payment error rate or substantial inequities in payments among participants with similar circumstances. Extremely precise systems that are sensitive to small changes in household circumstances may be very accurate and equitable, but may also discourage participation by requiring too much of the participants; also, they may require too many resources to administer. The goal of an effective eligibility certification system is to achieve a balance between these competing objectives.

THE HASE HOUSING ALLOWANCE PROGRAMS

HASE 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). It 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 and to answer such questions as: Would the program cause rent inflation and

disrupt neighborhoods? To what extent would it induce landlords and homeowners to invest more in upgrading and maintaining the housing stock?[7]

In the allowance program, 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 income. Payments are made to eligible homeowners as well as renters, and recipients can change tenure or move to whatever housing they choose in the program area without interruption in 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 true income-transfer program.

In the 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).

[7] More complete descriptions of the purpose and design of HASE and summaries of its findings may be found in *Fourth Annual Report*, 1978; *Sixth Annual Report*, 1980; and Lowry, forthcoming.

- St. Joseph County, Indiana (metropolitan South Bend). Manufacturing employment 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.

The two programs were very large as compared to assisted housing programs in other communities, and particularly for communities of comparable size. In the five years of the experiment, there were 27,800 enrollments in the programs, of which 23,100 (78 percent) resulted in allowance payments. Allowance payments totaled $30.2 million and averaged $74 per month for the 408,700 unit months of payment.

The program grew rapidly during the first two years, experienced about two years when new enrollments were about offset by attrition, and then near the end of the five-year period net program size began to increase again due to the economic recession. At the end of the period, 9,500 households were receiving monthly payments averaging $96 per month--an annual rate of $10.9 million.

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 in order to exercise adequate control

over HAO operations to ensure conformance to experimental requirements. Rand then relinquished its control to local community leaders who, as trustees, are responsible for program activity for the remainder of the ten-year operating period.

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.

FACTORS INFLUENCING THE DESIGN OF HASE PROCEDURES

Even though all benefit programs with means tests to determine eligibility and benefits use eligibility certification systems, there is considerable variation in form and emphasis and in the allocation of resources within those systems. Those variations reflect differences in program objectives, client populations, benefit levels, and the form of the benefits. For example:

- Generally, the larger the benefits paid by a program, the more frequently eligibility will be reviewed and the more extensive the error control procedures because the potential savings from such procedures is greater.
- In general, elderly and disabled individuals on fixed incomes are less likely than younger, nonhandicapped households to experience large or frequent changes in income. Therefore, less frequent reviews of eligibility and less extensive error

control may be more appropriate for elderly and disabled households.

It is helpful for understanding the design of the HASE eligibility certification system to understand some of the constraints on the design and key concerns of the designers.

Program size. The allowance programs were larger than the total amount of assisted housing in all but the few largest cities in the nation and much larger than those in communities of similar size to the two HASE sites. As a result of the size of the programs, the HAOs required relatively large staffs: in the second program year, when the largest staffing levels were required, Brown County averaged 57 full-time equivalent (FTE) staff members and St. Joseph County averaged 82 FTEs. Because numerous staff members were involved in determining and certifying eligibility, considerable challenges existed to maintain consistent application of program rules at each site and between sites, and to manage large workloads without long delays, overdue processing, or rapid fluctuations in the total staff size. To accomplish these goals, the HAOs attempted to maintain stable and predictable workloads through the design of program procedures. This objective influenced the design of many HAO procedures, particularly client reporting requirements.

Client population. A wider variety of households were eligible for the allowance programs than for perhaps any other benefit program (with the possible exception of the Food Stamp program), in part because of the eligibility of homeowners. HAO rules and procedures had to accomodate more complex incomes and assets than is typical for other programs. In addition, many of the eligible households had no prior experience

with benefit programs. As a result, the HAOs attempted to specify operational rules to a high degree and to concentrate considerable resources on the collection of complete and accurate information through face-to-face interviews.

Treatment of participants. An important part of the research was to measure client response to the housing allowance concept. To the extent that eligible households declined to participate because of ill treatment or burdensome procedures not essential to the program design, the reaction to the concept would not be accurately measured. This concern affected HAO recruiting, training, office location and design, procedures, forms, and reporting requirements.

Amount and quality of the research data. The administrative records of the HAOs were a major source of data for Rand's research. The HAOs were required to collect additional data elements on participating households and their income and assets not required to determine eligibility or the amount of benefits. This additional data collection involved only a modest increase in the workload, but ensuring the accuracy of this and the data required for determining eligibility took on added importance because of the need for an unusually high level of accuracy for the research. The HAOs used an unusual number of procedures to prevent and detect errors; the emphasis was on prevention and on detecting errors before they affected payments.

Maintaining program integrity. Because of the threat to the research and to program integrity in the two communities, special precautions were taken to prevent opportunities for program abuse either by employees or participants. This affected many aspects of the design of

the eligibility certification system, including internal checks and error control procedures.

Controlling administrative costs. Despite the additional requirements of the research, it was also important for the programs to control administrative costs to enable judgments about the feasibility of administering a nonexperimental housing allowance program. This concern for controlling costs affected all elements of the HAO eligibility certification system. For example, client reporting procedures were designed to minimize client reporting except when scheduled and initiated by the HAOs. This reduced the chances for overpayment due to clients failing to report required changes; it also helped to maintain stable, predictable workloads for the HAOs.

The HAOs also attempted to control costs by using processing thresholds to reduce administrative costs required to process small changes having little effect on allowance payments. For example, initial participation was limited to applicants who were eligible for payments of at least $10 per month.

ADMINISTRATIVE RESEARCH IN HASE

The housing allowance approach is a considerable departure from the federal government's traditional approach to housing assistance, which entails subsidizing the construction of new projects (or the rehabilitation of substandard structures) specifically for low-income households. Congress authorized EHAP in 1971 to resolve uncertainties about how housing allowances would work in practice before making decisions about implementing the program nationally.

The main components of EHAP were HASE and the Demand Experiment (a small sample test of consumer reaction to housing allowances offered under various conditions in Pittsburgh and Phoenix). To learn more about the costs of operating the program and the comparative advantages of various administrative techniques, EHAP also contained a separate Administrative Agency Experiment (AAE) and sponsored administrative research in HASE.

Previous HASE administrative studies reviewed HAO operating experience through September 1977, focusing on administrative functions and their costs (Fourth Annual Report, 1978; Kingsley, 1979; and Kingsley and Schlegel, 1979) and techniques used to control errors in client eligibility, payment determinations, and housing quality evaluations (Tebbets, 1979). The analysis of administrative functions and their costs is updated to the full five-year experimental period, and the determinants of performance and costs are examined in Kingsley and Schlegel, 1982. This report on the eligibility certification system updates and extends the examination of error control and it also examines the other elements of the eligibility certification system. A summary analysis of all aspects of program administration is provided in Kingsley, Kirby, and Rizor, 1982.

This report on the eligibility certification system has four major purposes: (1) to evaluate the effectiveness of each element of the eligibility certification system, examine the interaction of the various elements, and assess the overall effectiveness of the HAOs' eligibility certification system; (2) to use the information on the various elements to examine differences in costs and other outcomes for various client

groups; (3) to use the information on outcomes and differences for various client groups to evaluate alternative procedures and to suggest changes that show promise for making the current HAO system more efficient; and (4) to draw implications for current operating programs, especially other housing programs and particularly the Section 8 Existing Housing program, which has many elements in common with the HASE housing allowance programs.[8]

ORGANIZATION OF THE REPORT

The report examines all four elements of the eligibility certification system, but the majority of the analysis is of those parts of the system for which HASE produced data that permit estimation of the effects of alternative procedures.

Because the HAOs used only a single set of definitions of eligiblity and did not significantly vary elicitation methods, little data are available to evaluate alternatives to the HAO procedures. However, we do offer judgments on the overall importance of the definitions and procedures selected for the success of the HAO system. Both of these elements of the eligibility certification system, the eligibility definitions and the elicitation, are examined in Section II.

HASE produced much more data relevant to the analysis of monitoring changes in eligibility and to error control. Section III describes the outcomes of the HASE system for monitoring eligibility changes over

---

[8] In 1974, after some early EHAP findings were available but long before the experiments were complete, Congress established the Section 8 Existing Housing program. This program is similar to the allowance program in many respects. (See Drury et al., 1978, and Rydell et al., 1981, for discussions of the differences.)

time, and evaluates other alternatives. Section IV describes the HASE error control system and its outcomes. Because of the requirement to provide accurate data for research and because of the risk to the integrity of the program and the experiment presented by errors and fraud, HASE used extensive procedures to prevent and control errors. The data generated by this system enable us to evaluate the cost effectiveness of individual procedures and other alternatives. The analysis includes techniques used for preventing, detecting, and correcting errors; it distinguishes participant from staff errors and intentional from unintentional errors.

In Section V we summarize our conclusions and provide recommendations that we judge will improve the efficiency of the existing programs, would be important to the design of a national housing allowance program, or might be appropriate for consideration in other housing assistance and benefit programs.

II. HASE ELIGIBILITY DEFINITIONS AND ELICITATION PROCEDURES

Throughout the period of the experiment, the HAOs used a single set of eligibility definitions. Some changes were made to program standards and some rules and procedures were refined and clarified, but the key standards and procedures remained essentially the same for the full five years.[1] As a result, we can describe the overall effectiveness of the system but we cannot measure the effects of particular rules and we cannot measure their performance compared to other alternatives.

A similar situation exists for the HAO elicitation procedures; a single set of procedures was used and there was no opportunity for testing planned variations. One notable exception was the variation between the sites in the level of effort made to screen ineligible households prior to an enrollment interview.

In this section we describe what we judge to be the most important features of both the eligibility definitions and the elicitation procedures used by the HAOs. We identify some overall results and we offer our judgments about the relative importance of the procedures employed and the likely effects of some alternatives discussed in the literature or that are used in other programs. Limited as it is, this discussion should be useful in considering alternatives for current programs; it also suggests some areas for further research. The rules and definitions for eligibility and the methods of elicitation have large effects on program costs and administrative costs. We judge that careful

[1] Appendix A provides a summary of program standards. For a complete description, see Katagiri and Kingsley, 1979.

analysis of these effects may result in substantial improvements in targeting program benefits and in reducing administrative costs in benefit programs.

ELIGIBILITY DEFINITIONS AND PROCEDURES

An objective of a program's eligibility definitions is to make the closest estimation of actual household means possible at a reasonable administrative cost and with a reasonable burden for clients. The difference between the income and assets calculated for the program and actual amounts for the same period of time may be considered a form of program error whose effects on payments could be measured. An evaluation of the effectiveness of the eligibility definitions in estimating actual household income and assets would require either testing planned variations with adequate controls to isolate the effects of the variations or data on past actual income and assets against which the estimates from the HAO system for that same period could be compared. Neither type of data is available.[2]

---

[2] In the early months of the program, the Brown County HAO collected data on actual income for the past twelve months as well as current income. These data would have provided, in later years, the basis on which to make comparisons of program estimates and actual income. However, the practice was discontinued within six months because of the amount of additional time required for both HAO staff and clients in obtaining, documenting, and verifying this information. It was generally more difficult for clients to report accurately and document income for the past twelve months than for recent or current income. As a result, this initial procedure about doubled the effort required for both the HAOs and clients to complete the elicitation and verification processes.

Griffiths and Callahan (1980) have recommended a procedure for assisted housing programs that would require clients to report actual past calendar year income against which the program estimates could be compared and payments reconciled. However, benefits would be based on more frequent recertifications. We judge that this would result in a substantial increase in the workload and that the comparisons would only be

SUMMARY OF HAO ELIGIBILITY DEFINITIONS

There are four categories of criteria that determined eligibility for the HASE housing allowance programs: residency, household composition, assets, and income. Payment amounts were then based on income and household composition.

Residency. Participation was limited to residents of the program area. At the beginning of the programs, preference in scheduling enrollment interviews was given to persons who had been residents of the community when the program was funded rather than to persons who had moved to the community after that date. This preference was initially implemented because of community concern that the programs would serve as magnets for lower-income households in other communities and who might increase the burdens to local taxpayers, particularly when the allowance program ended. After a period of experience with the program, during which such moves did not occur in significant numbers, this preference system was discontinued--much sooner in St. Joseph County than in Brown County.

Household composition. At the beginning of the programs, participation was limited to households containing two or more related persons or single persons who were elderly, handicapped, or disabled. (These are traditional limitations for assisted housing programs.) In August 1977, program rules were amended to add eligibility for nonelderly singles who were not handicapped or disabled but who lived alone. Partici-

---

valid if made for the same period for which income was projected; that is, it would be difficult to adjust benefits based on such a reconciliation if calendar year income was compared with a different 12-month period used for the projections.

pation by this group was limited to about 600 households in Brown County and about 950 households in St. Joseph County.[3] With this change, the only groups still excluded because of household composition were single persons living with other nonrelated persons.

In measuring household size to determine benefit levels, the HAOs did not count nonrelated persons living in the household who were not dependent upon the household. However, in determining the adequacy of the housing unit for occupancy, the HAOs did count nonrelated persons.

Assets. The concept of a housing allowance program does not require a limit on household assets; instead, all assets were converted to an income amount based either on actual income generated by the assets or by imputing income to nonincome-producing assets. However, to maintain integrity in the local communities, the programs did employ separate asset limits; but those limits had to be large enough to permit participation by low-income homeowners whose home equity was counted against the asset test. The initial asset limits were $20,000 for nonelderly households and $32,500 for elderly households.

Property values increased at a rapid rate during the period of program operation; as a result, a number of elderly households were declared asset ineligible who still had low enough incomes to qualify even when imputed income from home equity was added. Beginning in July 1978, the asset limits were adjusted annually by the increase in the

---

[3] This change was the result of legislation that authorized HUD to approve occupancy in up to 10 percent of the units in most HUD-assisted housing projects by nonelderly, nondisabled singles, so long as preference for such units was given to eligible elderly and disabled single persons.

Consumer Price Index (CPI); after that very few clients became asset ineligible who remained income eligible.

Homeowner participation presented the challenge of determining home equity.[4] The amount treated as an asset was the difference between the current fair market value and the amount of any outstanding mortgages. The challenge was to develop a procedure that would yield consistent fair market values at a reasonable administrative effort. Generally, the HAOs used the current assessed value for property tax purposes, which was multiplied by an equalization rate determined by the states. In Brown County, because of the nature of the assessment process, this required use of 24 separate multipliers, one for each of the 24 political jurisdictions within the County. For St. Joseph County, a single multiplier could be used for all properties.[5]

In addition to equity in real estate, the HAOs also counted the net current value of other assets: for example, savings and checking accounts, cash on hand, stocks and bonds, and business assets. For checking accounts and cash on hand, the HAOs excluded the first $250 for

---

[4] Other housing assistance programs have rules for determining the fair market value of real estate, but, because only renters are eligible for these programs, these rules are seldom used. For these programs there is relatively little administrative burden in treating each case individually; but consistent, dependable, equitable, and unchallengable rules were required for HASE because 30 to 60 percent of the recipients were homeowners.

[5] While we judge that this method of determining current fair market values worked reasonably well for the two communities in the experiment, determining home equity would be much more difficult in other states where property values are not assessed regularly or where state multipliers are not available to equalize assessments. It would be very costly for local housing agencies to estimate these values; this procedure would also be subject to disputes as is now often the case with tax assessments. It would also be very costly for either the agencies or the clients to hire independent appraisals. How to treat or determine the value of real property will be a major challenge in the design of a national program that provides housing assistance to homeowners.

each household member with such assets. (This avoided a great administrative effort that would have resulted in very little effect on total assets or income.)

At the start of the programs, the HAOs also counted the cash value of life insurance and the equity in second automobiles and recreational vehicles. After about two years of program operation, the HAOs dropped these assets from consideration because their effects on eligibility and allowance payments were negligible, especially compared to the administrative costs of collecting, documenting, and verifying them.[6]

Income. Eligibility and benefits for the allowance programs were based on adjusted gross income. Adjusted gross income was equal to total household income (excluding exempted income) less allowable deductions.

Total income included income from earnings, benefit programs (except food stamps), pensions and annuities, alimony and child support, unemployment and workmen's compensation, education stipends (in excess of tuition, books and fees), rental income, and all other income from assets. (See Appendix A for a more complete listing.) In addition, the HAOs imputed income to nonincome-producing assets (e.g., home equity) at the rate of 5 percent of the net value of these assets.

Excluded income included that received by household members who were less than 18 years of age or who were full-time students (but who

[6] Client estimates still could have been used at little additional administrative cost, but HAO rules emphasized documenting or verifying all aspects of income and asset eligibility. It was considered important that clients believe that everything would be checked; not checking some items might jeopardize the accuracy of other client reporting and might introduce an element of inequity for clients reporting accurately compared to others who failed to report accurately.

were not the head of household or spouse), nonrecurring income, and lump-sum additions to assets. (These additions to assets were counted in the means test to the extent that they produced income or had income imputed to them.)

Eligibility and benefits were based on total nonexempted income less allowable deductions to achieve adjusted gross income. The allowable deductions were:

- Ten percent of gross income for households whose head or spouse was 62 years of age or older, disabled, or handicapped; five percent of gross income for all other households.
- Extraordinary medical expenses not covered by insurance, defined as medical expenses in excess of three percent of total household income.
- Amounts of certain occupational expenses.
- Amounts paid for sick or child care determined necessary to employment of the head or spouse; such expenses could not exceed the amount of income for the released household member.
- $300 for each dependent member of the household.
- $300 for each secondary wage earner.
- Amounts paid out by a household member for court-documented child support and alimony.

Adjusted gross income was then used in a single formula to determine both eligibility and allowance entitlements as follows:

$$MA = R^{*} - 0.25\ Y_{ag}$$

where MA = the amount of maximum allowance entitlement,

R^* = the standard cost of adequate housing, and

Y_{ag} = the household's adjusted gross income.

At enrollment, if the formula resulted in a total of $120 or more (at least $10 per month in allowance payments), the applicant was eligible for the program, and the maximum payment was the amount yielded by the formula. At recertification, the client was eligible for continued eligibility if the formula yielded any positive amount.

Once determined eligible, actual allowance payments did not begin until the client obtained housing evaluated by the HAO as meeting program standards and renters had obtained an acceptable lease agreement with their landlords.

MAJOR THEMES OF THE HASE ELIGIBILITY DEFINITIONS

Three themes are particularly important in characterizing the HASE eligibility definitions: (1) the use of detailed operational definitions and guidelines, (2) the emphasis on documentation, and (3) the use of prospective accounting.

Detailed Program Definitions

While the program standards provide the basic definitions of eligibility, more detailed operational definitions were required to provide guidance for staff members and to achieve consistent treatment at each site and between sites. These operational definitions were documented in a series of operating manuals, the most important of which was the

"Instruction Manual for the Enrollment Application."[7] This manual provided step-by-step procedures for applying program definitions in completing the enrollment application form. (A copy of this form is provided in Appendix B.) Clarifications required to fit new situations not adequately covered by existing guidelines were provided in policy clarification memoranda drafted by the HAOs or Rand and issued by Rand. These were incorporated in later editions of the manuals.

These detailed guidelines not only provided guidance to staff members; they also served to constrain the range of individual interpretations of the definitions and rules and to reduce the number of case-specific determinations that were needed. Combined with this was the provision that the HAOs could not grant exceptions to program rules.

It can be argued that program rules should be flexible to fit individual situations. It is also argued that, if there is to be consistent treatment and equity, no exceptions should be granted. HASE opted for the latter in order to have consistent treatment and usable research data. We judge that the HASE system was effective in meeting the needs of clients and in providing consistent data, but there were other benefits as well. We judge that a major reason that the HAOs received such high ratings from the participants (in fact, increasingly high ratings as the programs continued) was the consistent treatment that clients received.[8] Not receiving an exception was easier to accept when other clients also did not receive exceptions.

---

[7] Examples of other manuals are the "Recertification Manual," "Semiannual Recertification Manual," "Verification Manual," and "Payments Manual."

[8] For a description of client attitudes toward the program and its administration, see Ellickson and Kanouse, 1979; and Lowry, forthcoming.

On the other hand, the HAOs monitored carefully the rules and client comments; many of the minor adjustments to program procedures resulted from issues raised by clients.

HAO internal monitoring procedures raised issues of interpretation, and staff members were encouraged to raise issues needing clarification to ensure consistent appliction of program rules. This enabled the staff to raise issues early in the process, and the error monitoring procedures enabled supervisors to monitor performance to identify common or individual problems for discussion in staff meetings and with individual staff members, respectively. This two-way feedback, combined with client feedback to staff members and through the HAO appeals process, improved the program's ability to have well-specified rules consistently implemented.

We judge that a system that permits no exceptions but which regularly reviews the effectiveness of program rules is likely to be less costly and more equitable overall than one that requires many individual judgments.

Emphasis on Documentation

A basic principle underlying the HASE eligibility certification system was that all data used for determining eligibility and benefits be documentable. They should be documentable, if possible, by the clients from documents available to them, and certainly should be documentable by the appropriate third-party source.

There are several reasons for this emphasis:

Increased accuracy. Calculations of current income and estimates of future income were more likely to be accurate if based on actual documents than on the client's memory or best guess. For example, clients often viewed their income in terms of "take-home pay" rather than gross income used for the program.[9] The HASE system improved the accuracy of the initial elicitation, reducing the requirements for follow-up checks on accuracy of client reporting.[10]

Lower administrative costs. There are three principal ways that the emphasis on client provision of documentation reduced HAO administrative costs. First, the costs of processing a third-party verification far exceed the costs of using available documentation during the interview. Each consent form to a third party must be filled out, sent to the third party, tracked by the agency, and processed. Also, follow-up contacts with third parties were sometimes necessary to encourage processing or to clarify data on returned forms. Second, the HAO was able to reduce third-party contacts even further because of the increased accuracy of its initial calculations of eligibility during the interview. The HAOs were able to then sample cases for third-party verification based on the percentage of income and assets documented:

---

[9] This was a problem also for some benefit payments. The most notable, and probably the single most frequent error in client reporting, was Social Security and SSI payments reported that did not reflect the amounts deducted for Medicare.

[10]This system assumes that the documentation provided is accurate. While documentation of some sources could be forged or used to manipulate program rules, HASE audit results indicate that carefully designed documentation requirements can yield highly accurate documentation. For example, HAO rules required that paystubs indicate the payment period, pay rate, hours worked, name of the firm, and name of the employee. For a description of the results of the HAO audits which examined the accuracy of the documentation, see Tebbets, 1979 (pp. 53-67). The audits disclosed no cases of suspected forgery of documentation.

the greater the percent of income documented by the clients, the lower the probability of selection for verification processing. The HAO sampling criteria were successful in detecting most of the reporting errors, targeting verifications to only one-third to one-half of the cases. Third, the accuracy of the initial elicitation using documentation also enabled the HAOs to not hold up payments until verification was completed; this avoided the higher administrative costs associated with maintaining and monitoring large backlogs of cases.[11]

Easier quality control. The HAOs required that photocopies of the documentation be placed in the files and discouraged verification by telephone unless it was followed by documentation or a verification form. This hard-copy support in the files aided a variety of HAO error-control procedures including manual data review, quality control reviews, and independent audits. Reviewers had the documentation available upon which the eligibility and payments determinations were based. Whether that documentation met requirements and whether program rules were properly applied could easily be determined, usually without separate contacts with third parties. This reduced the costs and improved the thoroughness of these procedures.

Reduced burden for third parties. In full enrollment programs like the allowance programs, the burden for third parties (particularly some employers and other benefit programs) in completing consent forms for

[11] The HAO computer system monitored the processing of recertifications to determine that they were completed on time. If the HAOs had had to await the receipt and reconciliation of all verifications from third parties, this process would have dragged out over a much longer period of time, and it would have been more difficult for the HAOs to hold the clients responsible for timely completion of the process.

all their employees or clients who applied for the allowance program would have been a substantial workload for them. The emphasis on documentation provided by the clients substantially reduced this workload for third parties.

Reduced client burden. Reliance on documentation also enabled participants to avoid having employers or other sources learn of the client's participation in the program. Program designers believed that a requirement that all employers be contacted might cause some eligibles not to participate. We are unable to assert that it would not have or that the possibility of these contacts during audits didn't cause some not to participate, but survey results indicate that this was probably not as important a factor as designers anticipated.[12]

Prospective Income Accounting

Most benefit programs use prospective accounting--the use of an estimate of future income on which current eligibility and benefits are based. The alternative is a retrospective system that uses past actual income to determine current eligibility and benefits. Since it uses actual income, the retrospective system should be more accurate; but in order for benefits to reflect current household needs, retrospective accounting requires frequent eligibility reviews. This implies greater costs for administration and greater reporting costs for participants. The only existing benefit program of which we are aware that uses retrospective accounting is HHS's Monthly Income Reporting Experiments

[12] Survey results, in fact, indicate that many clients supported frequent checks and shared the concern for ensuring program integrity. See Ellickson and Kanouse, 1979.

for the AFDC program. With monthly reporting, benefit levels and client needs are well matched, but less frequent reporting would increase the probability of reduced payments during a period of increased need. This would require a degree of money management that is difficult for many households.

The preliminary results from the Colorado Monthly Income Reporting Experiment appear to be positive: the net reduction in benefits more than offsets the additional administrative costs (which have been reduced by use of a computer based system for processing updates and monitoring processing). However, since most of this reduction is due to households terminating their participation earlier than they otherwise would have, some have questioned the extent to which this is due to the added reporting burden for clients rather than earlier discovery of changes that made them ineligible.[13]

In any case, we judge that monthly reporting would not be cost-effective for housing assistance programs due generally to lower benefits from housing programs than from AFDC; also, a very large portion of those assisted by housing programs are elderly households who tend to have even less fluctuation in income.

An important difference between housing programs and other benefit programs (e.g. AFDC, SSI) helps to explain why housing program incomes fluctuate less for AFDC and SSI recipients than does their income for determining eligibility and benefits for AFDC and SSI. Housing programs include the benefits from AFDC and SSI in calculating eligibility and

[13] For early results from the Colorado Monthly Reporting Experiment, see Crespi et al., 1978; and Williams et al., 1979.

benefits. However, housing benefits are not included in income calculations for AFDC and SSI. As a result, while AFDC may fluctuate considerably with changes in other income, the net effect on income for housing programs will be only a small change. The AFDC and SSI programs, as they adjust to changing income, take most of the fluctuation out of total income used for the housing programs.

Among prospective accounting systems there are three basic options:

- Use past income to estimate future income.
- Use current income to estimate future income.
- Use client's best estimates about future income.

All of these may be used within the same system and to some extent all three are used in most programs. The difference between programs is in the emphasis between the three and the degree to which rules specify which is to be used in particular circumstances. The HASE system emphasized using current income where possible, avoiding guesses about the future, and avoiding unnecessary interim recertifications.

If past income were used exclusively, benefits are likely not to reflect current needs unless eligibility is redetermined frequently (as in the monthly reporting system). Also, using only past income with less frequent reviews would tend to underestimate income and overstate benefits because incomes tend to increase over time. However, some income sources are difficult to estimate and document except in terms of past income. The most important example is income from self-employment. For most self-employed persons, the only available documentation is the tax return for the past calendar year. Using tax forms is about the

only feasible option because these incomes typically fluctuate within an annual period and certain expenses often are only calculated annually for preparation of the tax forms (e.g., depreciation).

Using only current income could also be highly accurate if frequent redeterminations of eligibility are made. However, unless these examinations are made, there is the risk of missing whole income sources and of frequent client-requested interim reviews. Many households have seasonal income or regular income within which there are seasonal variations. If the seasonal income is current at the time of the review, using only current income would tend to overstate the household's income; this is likely to result in a client-requested interim review. If the seasonal source is not current, then it could be missed completely by a system using only current income with infrequent recertifications.

The third alternative is to have clients estimate future income. Even if this system proved to be reasonably accurate, there are disadvantages:

- There is no way to document the basis for eligibility determinations unless third parties are willing to confirm them. This seems unlikely unless they have announced such changes, in which case it would be documentable and thus usable in the HASE system.
- The only way to determine the accuracy of the estimates would be to collect data on actual past income against which to compare the clients' estimates. It would be expensive to collect past year's income data for all clients. It also would be

costly for both the HAO and the clients to adjust future payments to recapture any overpayments.

- If there is no such adjustment, then this system would be hard to administer equitably for all clients. Some would be more optimistic than others; some more honest than others. Such a system is likely to reward dishonesty, and may bring the program's integrity into question.

As is the case with most other benefit programs, HASE used a combination of these three approaches. The HASE system involved two steps. First, the client was asked to identify all sources of income received by any household member over the past twelve months. Then each of these sources was examined to determine if it should be included in the estimate for the next twelve months and to determine the appropriate method for estimation and documentation.

For most benefit income, HAO rules projected the current month's amount to the next 12 months. However, earned income sources are divided into five basic categories: (1) current regular income, (2) current nonregular income, (3) multi-job employment, (4) past part-year employment, and (5) self-employment. Table 2.1 describes the basic rules for documentaton and estimation and provides some examples.

The HAO rules for estimating income were designed to (1) identify all income sources that should be considered; (2) reflect the documentation available to clients for various income sources; (3) reflect irregularities in income flows; (4) base the estimates on the most recent pay rates; and (5) establish clear rules so that consistent treatment would be provided for similar circumstances.

Table 2.1

SUMMARY OF HAO RULES FOR ESTIMATING AND DOCUMENTING EMPLOYMENT INCOME

Type of Income	Examples	Documentation Requirement and Basis for Estimating Income
1. Current regular	Full-year employment with regular hours throughout the year.	Most recent pay stub; multiply amount by the number of pay periods in a year.
2. Current nonregular	(a) Full-year employment but with irregular part-time or overtime.	Pay stubs for at least 6 of past 8 weeks used to calculate an average per pay period; average multiplied by number of pay periods.
	(b) Full-year employment but with seasonal variation (e.g., overtime during Christmas holidays for retail clerk).	Document past year's overtime hours, multiply by current pay rate, and add to regular amount during nonseasonal period.
	(c) Current part-year employment (e.g., farm or cannery labor).	Document number of pay periods or hours worked in past 12 months; multiply by current pay rate.
3. Multi-job	Employment by five or more employers during past 12 months (i.e., odd jobs).	Document total income for past 12 months or use past year's tax return.
4. Past part-year	Noncurrent part-year income (e.g., farm or cannery labor).	Document total amount for past 12 months or use past year's tax return.
5. Self-employment	Ownership interest in business from which income drawn is other than dividends (e.g., farm operator, door-to-door sales).	Document net earnings for the past 12 months or use past year's tax return.

NOTE: These are only brief summaries of key program rules; a much more complete set of guidelines is provided in HAO's *Instruction Manual for the Enrollment Application.*

We do not judge that the HAO system is best, either for an allowance program or for another benefit program; but it did work well. Before recommending these estimating rules for another program we would recommend that more data be obtained on the accuracy of the estimates by comparing them with actual income for the same period. We do suggest that income estimating rules in all benefit programs deserve careful attention because of their impact on program and administrative costs and on client equity.

ELICITING INFORMATION FOR THE MEANS TEST

Benefit programs use a variety of methods for eliciting from clients the information needed to apply the program means test. These include face-to-face interviews, self-administered forms with assistance available as needed, mail-back questionnaires, and telephone interviews. Within each type there can be considerable variation in form and thoroughness.

Which type is appropriate depends on program objectives, client capabilities, the complexity of program rules, the complexity of client income and assets, and whether the elicitation is the initial program enrollment or a recertification. A carefully designed face-to-face interview with a well-trained interviewer is likely to be the most thorough and accurate form of elicitation because it provides the opportunity to ensure that applicants understand the questions, that all questions are asked and answered completely, and that inconsistencies are resolved. However, such interviews are also likely to be the most expensive alternative to administer. Mail-back questionnaires are less

likely to be accurate; but they are probably the least costly to administer and their accuracy can be improved with follow-up by telephone or mail to clarify client responses.

In this section we distinguish elicitation at enrollment from that at recertification. The form of the elicitation at recertification may be influenced by the frequency of the reviews and both the form and frequency can be varied for different client groups or for various aspects of eligibility. Recertification elicitations are discussed in Section IV in conjunction with the frequency of recertification.

The enrollment elicitation, however, has a special significance which, we judge, justifies a thorough procedure for all clients. It is during this process that clients learn about the program--what is expected of them and what they may expect from the program and the administering agency. If this is communicated well at the beginning, it can reduce client frustration and misreporting. For the agency it is an opportunity to ensure that its messages are understood and that the initial determination of eligibility is correct.

THE HASE ENROLLMENT PROCESS

There were three steps in the HAO enrollment elicitation process: the preliminary application and screening, scheduling, and the actual interview.

The Preliminary Application and Screening

At the start of the program, the HAOs included a brief Preliminary Application Form (PA) in an informational brochure that was designed to

provide enough information to enable clients to make a preliminary determination of their likely eligibility. These brochures were mailed to persons inquiring about the program and were available in several locations throughout the communities. To apply for the program, an applicant filled out the brief form and mailed it to the HAO. The PA requested the name, address, and phone number of the applicant and information about household composition and residency, but it did not request any income or asset information. (A copy of the PA is provided in Appendix B.)

Data from this form were entered into the HAO computer system, which assigned an identification number to each client and printed lists to be used to schedule the interview. The system also monitored the progress of all applications to determine that each had been closed out in some manner within a reasonable period of time. The system also provided mailing labels to be used during the scheduling procedure.

The HAOs' early experience was that many applicants were not able to estimate their own eligibility, resulting in large numbers of ineligibles attending interviews. These interviews of ineligibles were very costly for the HAOs, and applicants often expressed frustration at the investment required of them to be determined ineligible. To reduce these costs for both the clients and the HAOs, the HAOs began to use outreach messages to encourage potential applicants to call to obtain information about the program and to determine if they were likely to be eligible. These phone calls were then used as the occasion for screening client eligibility.

Over time the HAOs became increasingly proficient in screening out ineligibles. The staff members always erred on the side of encouraging an application if there was any doubt; and even if there was no doubt, the applicant could still request an enrollment interview.

The Brown County HAO used its interviewers to take these calls. These staff members were able to determine whether an applicant was eligible after a 5 to 20 minute phone call during which the client might be asked to locate key documents if there was some question of eligibility.

This was a sizable investment for both the HAOs and the clients, but it was much less costly for both than was an interview for an ineligible. Eligibles still had to have formal interviews, but we judge that they were shortened somewhat because the client better understood what documentation would be needed and the notes taken during the phone call were available to the interviewer. Also, the eligibles probably approached the interview with more confidence knowing that they were probably eligible.

The screening was well received by the applicants and very few declined to provide income and asset information over the telephone. There were certainly fewer complaints from those screened by phone about the time and effort required than from ineligiblies who attended the interview only to be determined ineligible.

Because of its additional efforts in screening, the Brown County HAO expended more per application received: $3.34 (per application received in 1976 dollars) as compared to $1.79 for St. Joseph County HAO. This reflects the greater time spent in screening and it also

reflects the lesser yield in PAs per contact because of the more intense screening.

The results of the different screening procedures between the sites are reflected in two ways. First, the Brown County HAO processed PAs for only about half (52 percent) of the potential applicants who contacted the HAO; the comparable rate for St. Joseph County was 72 percent. Much of the lower rate for Brown County was due to the increased screening prior to the submission of a PA. Second, a significantly higher percentage of actual interviews resulted in enrollments in Brown County (78 percent compared to 68 percent in St. Joseph County). As a result, Brown County processed 128 interviews for each 100 new enrollments, but 146 interviews were required for 100 enrollments in St. Joseph County. Thus, St. Joseph County had to process 14 percent more interviews to obtain the same number of enrollments as in Brown County.

Brown County costs for the individual components of the enrollment process were generally higher than those for St. Joseph County, but because of the higher rate of ineligibles making it to the interview, the costs of achieving an enrollment of an eligible household was 27 percent higher in St. Joseph County ($37.70 in St. Joseph County and $29.65 in Brown County in 1976 dollars).[14]

We do not suggest that HASE results can be replicated in other programs; but for programs with open enrollment, HASE results suggest further analysis of vigorous screening early in the intake process. We do add a note of caution: screening must be performed with care and adequate safeguards to avoid screening out eligible households.

---

[14] Cost data are from Kingsley and Schlegel, 1982. Total costs per enrollment were calculated from data in Tables 3.1, B.2, and B.4. Cost data are for the period April 1976 through June 1979.

Scheduling the Enrollment Interview

The HAO procedures for scheduling the enrollment interview involved two steps. First, when it was the client's turn for an interview (the HAOs processed the applicants on a first-come, first-served basis), a staff member used the scheduling list to call the client to set up a time for the interview. Second, a confirmation letter was sent, along with a list of the documentation that the client was requested to bring to the interview.

After the first two years, the Brown County HAO altered its process by using a computer-generated mailing label to send a letter to the applicant requesting that the applicant call the HAO to set up the appointment. This was preferred because it reduced the costs for the HAO of attempting to reach clients by phone; and it avoided delays caused when clients could not be reached by phone, even after several attempts. If no response to the letter was received, the HAO attempted to reach the applicant by phone. The St. Joseph County HAO continued to attempt first to reach the clients by phone and then to mail letters if necessary. While the HAOs chose to perform this function somewhat differently, we judge them both effective and cost differences were not significant.

The rate of success in getting applicants to bring documentation to the interview did make a difference in program costs because documentation was the key factor in assignment of cases for sampling for third-party verification. (The resulting rates of verifications are discussed in Section IV.) During the program, revisions were made to the documentation worksheet as the HAOs attempted to improve its effectiveness.

The Enrollment Interview

The principal alternatives for elicitation at enrollment are a face-to-face interview conducted by agency staff or a form filled out by the applicant. In HASE, a key element of the eligibility certification system was a detailed, face-to-face interview. The key features of the HAO enrollment interview were the following:

- A complete description of the program was provided either as a part of the interview or before the interview.[15]
- A well-trained enrollment specialist conducted the interview, asking a standard set of questions from the ten-page HAO Enrollment Application Form. (A copy of the form is provided in Appendix B.) The form was designed to encourage asking all questions, and included an extensive list of possible income and asset sources. The standard survey technique of recording all negative responses was used.
- Wherever possible, responses to the questions were based on documents brought by the participant to the interview. When documentation was not available, the client was required to sign a consent-to-release-information form (consent form) that could be used for verification.
- If the applicant was determined eligible, he or she was given a form that indicated eligibility and the enroller's calculation

[15] Typically, the St. Joseph County HAO conducted pre-interview group information sessions for this purpose; for most clients the Brown County HAO used a slide and sound presentation with a staff member present to answer questions.

of the monthly allowance entitlement (subject to further internal review and verification).

- The eligible applicant and the enroller then executed the program's participation agreement, after the rights and responsibilities of the participant were reviewed in detail.
- The participant received a packet of program materials. These materials included the participation agreement, the Participation Manual (which provided a complete description of the program), and other materials such as a warning about the hazards of lead-based paint.
- The enroller reviewed the housing evaluation requirement and prepared the initial request for an evaluation of the client's current dwelling.

Again we had no planned variations in elicitation techniques that would allow us to evaluate alternatives to the HAO procedure. However, it is our judgment that this is one of the most important aspects of the HAO eligibility certification system for ensuring complete reporting of information relevant to the application of the program means test.[16] There are a variety of techniques for discovering errors in the amount of reported income and assets, but *the elicitation is key to ensuring that all sources are reported*. It is also important for ensuring that

[16] Others have suggested the importance of a face-to-face interview for the accuracy of the means test. Tebbets (1979) suggested that for HASE "...the steps taken in the interview to prevent error may be more important to achieving program integrity than subsequent error corrections" (p. 75). Hamilton (1979) indicated that "The wording of the questions about a particular kind of income, the sequence of questions and the nature of the interaction between the applicant and the agency staff member might be more important determinants of error than any of the factors analysed (by the AAE)" (p. 172).

clients understand their rights and obligations concerning to the program. For the clients it provides contact with an agency staff member who they may call with questions, and it provides a vehicle that encourages them to ask questions to ensure their understanding of the program.

We do not hesitate to recommend face-to-face interviews for initial enrollment in benefit programs because of the special advantages they have in communicating with clients and preventing errors. It is more expensive to administer than other alternatives, but we hypothesize that these costs are offset by improved accuracy of the elicitation and of future client reporting.

SUGGESTIONS FOR FURTHER RESEARCH

Most analysis of administration of benefit programs has evaluated the effectiveness of local administration. Little analysis has been conducted on the effects of alternative definitions of eligibility or of alternative methods of elicitation. Improvements in the AFDC program error performance has been attributed to simplification of eligibility and processing rules (Bendick and Campbell, 1976). The AFDC Monthly Income Reporting Experiment tests the monthly reporting alternative under controlled circumstances, but little other research can be cited in which such controls were used to evaluate alternative rules and procedures related to the eligibility certification systems in benefit programs. However, we judge that further analysis can pay substantial dividends in improved program performance.

For the eligibility definitions and rules, we suggest three areas of research:

- Examine the accuracy of the program estimating rules. This could be done by comparing program estimates with the actual income and assets for the periods of the estimates. Careful examination of this relationship should not only measure the accuracy of the system but it should also identify circumstances in which large discrepancies are most likely to occur and may suggest new and more effective approaches to estimating.
- Examine the effects on costs, equity, accuracy, and client burden of alternative eligibility definitions. Two examples from HASE and Section 8 help illustrate the effect of definitions on costs:
  1. The allowance program requires only a single calculation for determining both income eligibility and the amount of benefits. However, Section 8 requires separate calculations to determine eligibility and benefit amounts. In fact, if total assets exceed $5,000, two calculations are required to determine eligibility. In addition, at least two separate calculations are required to determine the amount of the client's contribution for housing. These additional calculations may be very important for program purposes, but they certainly increase administrative costs and the opportunity for error.

2. The two programs use comparable definitions for adjusted income, which is most often used to calculate program benefits. However, the allowance program provides an additional standard deduction of 5 percent of gross income (10 percent for the elderly and disabled), which has a significant effect on program costs. For example, an elderly household with gross income of $4,000 would receive $100 more per year in benefits than if the Section 8 definitions were used; for a nonelderly household the difference would be $50. Nationwide, this difference would result in significant program cost differences.

- Examine the motivational effects of alternative rules. Program rules provide particular incentives for clients (and for administrators). Most attention has been placed on the incentives and disincentives for using various welfare formulas. But individual definitions of eligibility can also affect client behavior in ways not anticipated by the program. An example from the allowance program is the response of clients to program asset limits. Both HAOs reported cases in which clients who were just over the asset limit (but still income eligible) altered their asset holdings to retain eligibility for the program. For example, one client purchased a sofa (a personal property asset not counted against the program's asset test) to reduce assets below the program's limit.

More attention has been paid to testing alternative procedures for eliciting information and determining initial eligibility, but little research has been conducted with adequate controls to isolate the effects of alternative procedures (for a discussion of some alternatives, see Kershaw and Williams, 1981). The principal alternatives to be tested are interviews and self-administered questionnaires. Within these options, variations are possible in the elicitation forms, the background and training of interviewers, and the level of detail of operational guidelines for interviewers.

We judge that careful testing of alternative definitions for determining income and assets and alternative elicitation procedures can yield combinations of rules and procedures that will substantially improve the balance between the accuracy of the estimates of income, the accuracy of the information elicited from clients, the burden for the clients, and administrative costs. Such improvements can better focus benefits to those for whom they were intended, improve program integrity, and may reduce overall program costs.

III. FREQUENCY OF ELIGIBILITY REDETERMINATIONS

The method and frequency of eligibility redeterminations are important determinants of administrative costs, program benefit outlays, and costs for program participants. Administrative costs are of course influenced by the number and type of redeterminations: for example interviews versus mail-back questionnaires, documentation and verification versus self-declaration. Administrative costs are also affected by the predictability of the recertification workload; in general, more staffing is required to process widely varying workloads than for the same volume of regular, predictable workloads. Also, rules for reporting with which participants can easily comply reduce the administrative burden of processing error corrections and of collecting overpayments.

Program benefit costs are affected by the sensitivity of the review system to changes in participant circumstances. More frequent reviews should yield more accurate benefits by more closely tracking changes in household circumstances that affect eligibility and benefits. In the HAOs' experience, more frequent reviews would indicate reduced program benefit costs because clients reporting increased income (resulting in reduced benefits) at regular recertifications outnumbered those reporting reduced income by about 2 to 1.

For clients, there are three types of costs related to eligibility redetermination. First, for participants experiencing reductions in income or increases in household size, a timely review of eligibility with an adjustment in benefits is important to meet their changed needs. If they must wait months for an adjustment, their burden in meeting

housing and other expenses increases. Second, if redeterminations are too frequent, especially when income changes are infrequent, they increase the costs of participation and may cause some eligiblies not to participate.[1] Third, if the reporting requirements are complicated there is a greater risk of failure to report. Such failures may result in overpayment, which must be repaid from the clients' already limited means. Also, when the rules are complicated, failing to report changes as required can be frustrating for clients and may adversely affect their attitudes about the program and agency staff.

The goals of accurate benefits, lower administrative costs, and reasonable burdens for participants are often in conflict. More frequent reviews should provide increased equity for participants and perhaps lower benefit costs, but these must be balanced against the increased administrative costs and the burden for the clients of more frequent reporting. Overemphasizing any one goal may make the other goals more difficult to achieve.

The frequency of redeterminations varies among the existing benefit programs, but the differences between the programs and the types of clients they serve indicate that some differences in frequency should exist. If incomes change less frequently or by only a small amount

---

[1] This issue is among those being examined in the AFDC monthly income reporting experiments. Preliminary results from the Colorado experiment indicate that payment savings are accomplished with monthly reporting, primarily because clients leave the program earlier than they would with less frequent reporting. However, it is not yet clear if part of this savings is due to eligibles dropping out because of the burdens of monthly reporting. (See Williams et al., 1979.) A survey of participants in the Colorado experiment indicates that about two-thirds of the participants believed that monthly reporting was more frequent than necessary. (See Crespi et al., 1978.) For a discussion of how program rules can adversely affect participation, see Mendeloff, 1977.

(e.g., most elderly households), then it makes sense to review eligibility less frequently than for households experiencing more frequent or larger changes (e.g., temporarily unemployed households).

The standard frequency of reviews for the SSI program is annual. For AFDC, the standard frequency is semiannual, but some states require more frequent reviews. These state requirements usually involve reporting certain changes as they occur (e.g., changes in income or household composition, changes in the source of income, changes in income above a certain amount).

The standard frequency for most HUD-assisted housing programs is annual reviews for all households. However, this is the minimum frequency and some local housing agencies and private owners administering the programs choose to reexamine eligibility more frequently.

In recent years the optimal frequency for redeterminations in benefit programs has received considerable attention.[2] These discussions often recommend more frequent reviews for various programs. Some also include recommendations for more selective case action in scheduling reviews. The SSI program and some states administering the AFDC programs are now using sophisticated computer models to schedule special reviews for clients whose income or household composition match profiles that suggest large or frequent changes.

The methods of redetermination also vary among programs. These include interviews, self-administered forms completed at the agency, mail-back questionniares, and clients contacting the agencies to report

[2] Some prominent examples include Allen, 1973; Zais et al., 1975 and 1976; Kershaw and Fair, 1976; Dickson, 1977; *Fourth Annual Report,* 1978; Hamilton, 1979; Griffiths and Callahan, 1980; and Zais, 1981.

certain changes as they occur. The monthly income reporting experiments for AFDC make extensive use of mail-back questionnaires; the normal AFDC program uses semiannual interviews or self-administered forms. In general, mail-back questionnaires are less expensive to process than interviews, but they are also less likely to be accurate. Also, changes may be more difficult to document and verify if additional client contacts are required.

Before examining HAO frequencies and methods for redetermining eligibility, an important difference between housing and other benefit programs should be noted. There is a series of waivers among the benefit programs that allows one or the other in each combination not to count as income benefits from the other. For example, AFDC and SSI generally dc not count HUD housing assistance as income but the housing programs do count AFDC and SSI benefits as income. However, the Food Stamp program counts housing benefits as income and housing programs do not count Food Stamp benefits.

A system similar to this is necessay to avoid continuous, very costly adjustments in benefits between the programs. For example, if an AFDC recipient began to receive housing benefits and had to count these benefits as income, an adjustment would be made to reduce the AFDC benefit. If the housing program also counted AFDC benefits as income, the housing program would then increase its benefits to reflect the lower AFDC benefits. The increased housing benefits might then cause a further reduction in AFDC benefits. This cycle might continue until no benefits were being paid by one program or until one program was paying its maximum benefits. This increase in the number of redeterminations

would be very costly for the agencies and a considerable burden for the clients.

For the AFDC and SSI programs, this system has the administrative advantage of not having to collect data on housing benefits. The advantage for the housing programs is lower benefit payments because they do count benefits from other programs. But there is an additional benefit that can affect the frequency with which eligibility must be determined. When a major change in other income occurs for AFDC and SSI recipients, there is usually a significant change in benefit levels. However, because of this adjustment, total income for housing program purposes has changed very little and thus housing benefit payments are not affected greatly. Since AFDC and SSI recipients make up a sizable share of assisted housing participants, this is an important factor influencing the likelihood of large changes to which the redetermination process should be sensitive.

HAO ELIGIBILITY REDETERMINATION FREQUENCIES AND METHODS

The HAOs used three types of eligibility reviews: annual, semiannual, and special recertifications. Annual reviews were complete reinterviews that replicated the procedures of the enrollment interview. The same requirements for documentation or consent forms for undocumented items also applied. These reviews were held on the anniversary month of the enrollment interview.

Semiannual reviews were conducted, using mail-back questionnaires generated by the HAOs' computer systems at six-month intervals between the interviews. These reviews were limited to changes in household com-

position and income; assets were reexamined only at annual reviews. (See Appendix B for a sample of the semiannual recertification questionnaire.) These forms contained the information reported by the client at the previous review and requested that clients indicate any changes. When the forms were returned, they were reviewed for completeness and to determine if they reflected changes in benefits from other programs that were known to have occurred since the last review (i.e., increases in the benefit rates for Social Security, SSI, and AFDC). For some changes, for unclear responses, or when benefit income changes were not reported as expected, the HAOs contacted the clients to clarify the information reported and occasionally, when this was not successful in clarifying all changes, the clients were requested to attend an interview.

Special recertifications occurred between regular recertifications for only a small percentage of the clients. From the start of the program, clients were provided the opportunity to request special reviews when they experienced changes in household composition or when they suffered income losses of more than $40 per month. Smaller income changes were not processed as special reviews but were held until the next regular review. We judge that use of this threshold substantially reduced the number of such reviews, without serious adverse effects for the clients. (The maximum effect on payments of a smaller income change would have been less than $10 per month.) Clients also had to report the loss of the head of household, the person with whom the HAOs had executed a participation agreement. Any payments made to the household after the head had departed were considered erroneous. Upon reporting

the changes, remaining household members could enroll in the program with a new household head, often with no interruption in payments.

After only a few months of program operation, a procedure for HAO-initiated special recertifications was introduced for cases in which large income changes were anticipated within a short period. This was the result of experience with households that applied for benefits immediately after loss of employment, but who then experienced large income increases soon after enrolling. However, these special reviews were limited to those meeting specific criteria:

- Households reporting zero adjusted gross income, or
- Households that had lost a primary source of income within the past 90 days and for whom no replacement income source had yet started.

When one of these criteria was met, the client was scheduled for a special review 30, 60, or 90 days later.

All other housing programs (including most of the AAE housing allowance programs) provide special reviews for clients who experience losses in income that present a hardship. However, these programs generally do not provide for subsequent special reviews to determine that these losses were not just temporary. This allows large increases in benefits when client incomes decline, but with no mechanism for reducing benefits when equally large income increases occur when replacement income sources (e.g., unemployment compensation, new employment, AFDC) are started.

The HAO-initiated special recertifications initially were conducted by telephone with the HAO contacting the clients to determine if changes had occurred. Later, the HAOs began using a form similar to that used for semiannual recertifications, which was mailed to the participants. In St. Joseph County the requirement for an HAO-initiated special recertification was entered into the automated system. The computer system monitored the recertifications to determine that all required processing was completed on time.

As with the client-initiated special recertifications, changes to client payments were processed only if income had changed by $40 or more per month, which reduced HAO administrative costs without substantial losses in benefit payments.

Clients were discouraged from reporting income changes except when requested to do so by the HAO at a regular or special recertification or when the change was a loss of income that qualified them for a special recertification. If volunteered information would result in a change unfavorable to the client, the client was informed that it was not necessary to provide the information until the next recertification. (If the client still wanted the change reflected in lower payments, the HAO would process it to the extent of its administrative capacity to do so, given its regular workload.)

An important objective of the HAO system was to limit unscheduled reviews to reduce and control workloads. The HAOs could predict recertification workloads with considerable accuracy six months in advance; they could then adjust staffing levels and assignments accordingly. Also, because of generally even intake rates, the workloads for recer-

tifications were reasonably balanced from month to month. The HAOs also wanted to limit the requirements for client-initiated reporting to the minimum necessary for program design purposes (i.e., loss of head of household and moves that required evaluation of the new housing unit before payments could be transferred to that unit). In addition to reducing HAO workloads, this also reduced the likelihood that clients would fail to report required changes as they occurred. As a result, the costs of processing and collecting overpayments due to clients' failure to report were small. This also reduced the hardships for clients of repaying overpayments.

HAO RECERTIFICATION WORKLOADS

During the five years of open enrollment, the HAOs initiated about 85,000 recertifications; 70,000 determined that clients remained eligible, and 15,000 resulted in termination of participation. For the analysis of recertification workloads and results, we examine only the recertifications completed during the final two years of experimental operations (years 4 and 5). This period is selected because we judge that it best reflects long-term experience with recertifications.

We first use this data to identify workload volumes and to show the results for recipients and nonrecipients. We then examine the changes in allowance payments resulting from the reviews. Since recertifications for nonrecipients do not actually change program outlays, we exclude them from this analysis. For recipients we examine differences among client groups. We then compare program savings from recertifications with the cost of administering them. Finally, we examine in a

preliminary way the likely effects of some alternative recertification frequencies and the applicability of the HAO experience to other benefit programs.

During the final two years of the program the HAOs processed 43,600 recertifications, including terminations that occurred at recertification--an average monthly workload of 1,800 recertifications (650 for Brown County and 1,150 for St. Joseph County). Of these, 53 percent were semiannual recertifications, 41 percent were annual recertifications, and only 6 percent were special recertifications. The distribution was similar for the two sites (see Table 3.1).

Most recertifications processed were for recipients; for nonrecipients, most recertifications resulted in termination of participation. About 80 percent of all HAO enrollees were able to meet the additional requirement of obtaining housing meeting program standards that enabled

Table 3.1

HAO RECERTIFICATION WORKLOADS DURING PROGRAM YEARS 4 AND 5

Type of Recertification	Brown County		St. Joseph County		Total	
	Number	Percentage	Number	Percentage	Number	Percentage
Semiannual Recertifications	8,241	51.8	15,032	54.2	23,273	53.4
Annual Recertifications	6,623	41.7	11,214	40.5	17,837	40.9
Special Recertifications	1,033	6.5	1,460	5.3	2,493	5.7
Total	15,897	100.0	27,706	100.0	43,603	100.0

SOURCE: Calculated by HASE staff from HAO Management Information Reports.

them to actually receive payments. (Renters also had to obtain acceptable lease agreements from their landlords.) Most recipients began receiving payments within the first three months of participation, and only a few remained participants for more than six months without receiving payments. Most nonrecipients terminated at the first semiannual recertification, usually because they had not completed the required recertification. Nonrecipients who did return the questionnaire were encouraged to terminate if they were not actively attempting to meet the remaining requirements. But they were encouraged to reenroll when they were ready to move or made the required repairs. However, none was required to terminate and some nonrecipients did choose to remain participants and continue having their eligibility recertified.

Table 3.2 summarizes recertifications during the last two years of the experiment for recipients and nonrecipients. Of the semiannual recertifications processed, 6 percent in Brown County and 11 percent in St. Joseph County were for nonrecipients; three-fourths of these resulted in terminations. Between the two sites, an average of only 21 nonrecipients per month chose to recertify and were determined eligible by the HAOs.

For annual recertifications, 3 percent or fewer were for nonrecipients and about two-thirds of these resulted in terminations. An average of only six nonrecipients per month chose to recertify and were determined eligible.

Table 3.2

RECERTIFICATIONS PROCESSED BY CLIENT PAYMENT STATUS AND RECERTIFICATON RESULTS: PROGRAM YEARS 4 AND 5

Recertification Results	Brown County				St. Joseph County			
	Recipients		Nonrecipients		Recipients		Nonrecipients	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Semiannual Recertifications								
Remain eligible	7,011	90.0	119	26.4	11,423	85.4	380	23.0
Terminated	779	10.0	332	73.6	1,960	14.6	1,269	77.0
Total	7,790	100.0	451	100.0	13,383	100.0	1,649	100.0
Annual Recertifications								
Remain eligible	5,650	86.5	29	33.0	9,233	84.9	124	36.8
Terminated	885	13.5	59	67.0	1,644	15.1	213	63.2
Total	6,535	100.0	88	100.0	10,877	100.0	337	100.0
Special Recertifications								
Remain eligible	946	93.8	22	91.7	1,315	95.6	85	100.0
Terminated	63	6.2	2	8.3	60	4.4	0	—
Total	1,009	100.0	24	100.0	1,375	100.0	85	100.0

SOURCE: Calculated by HASE staff from HAO Management Information Reports.

RESULTS OF RECERTIFICATIONS FOR RECIPIENTS

Among the regular (semiannual and annual) recertifications for recipients, 10 to 15 percent resulted in terminations. Some terminations were due to failure to recertify; others resulted from HAO determinations of ineligibility. For special recertifications, only 4 to 6 percent resulted in terminations. As we shall see, most special recertifications resulted in increased allowance entitlements, reflecting the

larger proportion that were requested by the clients because of income losses or household changes.

Table 3.3 summarizes the effects of recertifications on eligibility and indicates the nature of the change in allowance payments for recipients. The results are substantially different for the three types of recertifications and for elderly and nonelderly recipients, but the results are remarkably similar for the two sites.

- For both semiannual and annual recertifications, cases with decreases in allowances (including terminations) outnumbered allowance increases by at least two to one. The range was from two to one for St. Joseph County annual recertifications to six to one for St. Joseph County semiannual recertifications. Therefore, in addition to improving programs equity, these regular recertifications were much more likely to result in program savings (by reducing payments) than they were to increase payments. For special recertifications, however, payments increased about 1.5 times more frequently than they decreased. However, HAO-initiated special recertifications that resulted in decreased payments were important in offsetting client-requested special recertifications and thus made an important contribution to both equity and reduced program benefit costs.
- The principal difference in the results for semiannual and annual recertifications is that far more participants had no change to allowances at the semiannual recertification. This is largely due to the reexamination of assets only at annual recertification; small changes in interest or imputed income

Table 3.3

PERCENTAGE DISTRIBUTION OF RECERTIFICATION RESULTS FOR RECIPIENTS BY SITE AND RECERTIFICATION RESULTS: PROGRAM YEARS 4 AND 5

	Brown County			St. Joseph County		
	Elderly	Nonelderly	Total	Elderly	Nonelderly	Total
Semiannual Recertifications						
Remain Eligible						
Increase in entitlement	8.3	15.7	13.0	4.8	13.8	9.7
No change in entitlement	34.1	24.8	28.2	31.3	31.7	31.5
Decrease in entitlement	55.9	44.6	48.8	59.3	31.8	44.2
Participation Terminated	1.7	14.9	10.0	4.7	22.8	14.6
Total	100.0	100.0	100.0	100.1[a]	100.1[a]	100.0
Number of Transactions	2,881	4,909	7,790	6,032	7,351	13,383
Annual Recertifications						
Remain Eligible						
Increase in entitlement	27.8	20.4	23.4	38.3	22.5	30.6
No change in entitlement	4.2	12.0	8.8	1.3	13.7	7.3
Decrease in entitlement	62.9	48.2	54.2	53.9	39.7	47.0
Participation Terminated	5.1	19.4	13.5	6.5	24.2	15.1
Total	100.0	100.0	99.9[a]	100.0	100.1[a]	100.0
Number of Transactions	2,661	3,877	6,535	5,581	5,296	10,877
Special Recertifications						
Remain Eligible						
Increase in entitlement	67.3	59.4	59.9	78.0	57.1	59.3
No change in entitlement	1.8	1.2	1.2	--	2.0	1.8
Decrease in entitlement	27.3	33.0	32.7	17.3	36.6	34.5
Participation Terminated	3.6	6.4	6.2	4.7	4.3	4.4
Total	100.0	100.0	100.0	100.0	100.0	100.0
Number of Transactions	55	954	1,009	150	1,225	1,375

SOURCE: Calculated by HASE staff from HAO Management Information Reports.

[a]Total does not equal 100 percent due to rounding.

resulted in some change to allowance entitlement for almost all recipients at annual recertifications. If the "no change" and "increase" cases are combined, there is little difference between the distributions. About 38 percent experienced no change or an increase in entitlement; about 49 percent had a decrease but remained eligible; and 13 percent had their participation terminated.

- A principal difference for both types of regular recertifications was the greatly differing experiences of elderly and nonelderly recipients. The elderly were very much less likely to terminate their participation. (The range for elderly terminations was 1.7 percent to 6.5 percent; for nonelderly the range was 14.9 percent to 24.2 percent.) However, there was little difference in the overall percentage that experienced allowance decreases; the difference was that the decrease resulted from terminations of participation for a much larger percentage of the nonelderly.
- Perhaps the most important difference for special recertifications was again between elderly and nonelderly households. But this difference was the *frequency* of special recertifications: only about 5 percent of the special recertifications in Brown County and 11 percent in St. Joseph County were for the elderly. (This difference between the sites is attributable to the larger proportion of St. Joseph County recipient households who were elderly.) This low rate of special recertifications was a result of the much more stable incomes of elderly households.

- A comparison of the two sites indicates that the similarities are more remarkable than the differences. Perhaps the most significant difference was that, generally, semiannual and annual recertifications were more likely to result in terminations in St. Joseph County.

How do these differences affect allowance payments? Table 3.4 presents the average effect of recertifications on monthly allowance payments for each type of recertification by site and by client type. For this and later analysis of error control results, the gross change includes the total amount of changes to allowance payments, both the increases and decreases in payments. The net change reflects subtraction of payment increases from payment decreases. The change thus indicates the average program savings per case processed. Negative net amounts reflect an average increase in program payments resulting from the procedure. The following summarizes these results:

Semiannual Recertifications

- The average net effect on allowances was a reduction in payments for both elderly and nonelderly clients at both sites. However, both gross and net allowance changes were four to five times greater for the nonelderly than the elderly recipients.
- There is very little difference by tenure at either site when controlling for elderly/nonelderly status.
- The changes in allowances were greater for St. Joseph County than for Brown County. This reflects primarily the higher termination rates in St. Joseph County.

Table 3.4

CHANGE IN MONTHLY HOUSING ALLOWANCE PAYMENTS
RESULTING FROM RECERTIFICATIONS

	Brown County			St. Joseph County		
	Number	Average Gross Change in Payments	Average Net Change in Payments	Number	Average Gross Change in Payments	Average Net Change in Payments
Semiannual Recertifications						
Elderly						
Renters	1,421	$ 5.14	$ 3.71	1,368	$ 8.01	$ 7.08
Homeowners	1,460	4.48	3.51	4,464	7.62	6.78
All elderly	2,881	4.81	3.61	6,032	7.71	6.83
Nonelderly						
Renters	3,798	23.90	16.93	4,625	36.63	29.69
Homeowners	1,111	29.28	20.25	2,726	31.35	24.43
All nonelderly	4,909	25.12	17.68	7,351	34.67	27.74
All	7,790	17.61	12.48	13,383	22.51	18.32
Annual Recertifications						
Elderly						
Renters	1,262	$ 8.30	$ 4.78	1,240	$10.80	$ 6.27
Homeowners	1,399	9.90	6.12	4,341	9.99	4.84
All elderly	2,661	9.14	5.48	5,581	10.17	5.16
Nonelderly						
Renters	2,937	27.59	19.49	3,240	37.62	29.76
Homeowners	937	38.05	29.97	2,056	33.68	23.19
All nonelderly	3,874	30.12	22.02	5,296	36.09	27.20
All	6,535	21.60	15.29	10,877	22.79	15.89
Special Recertifications						
Elderly						
Renters	30	$42.88	$-16.77	39	$40.58	$-22.53
Homeowners	25	22.51	-10.05	111	29.82	-18.90
All elderly	55	33.62	-13.72	150	32.62	-19.84
Nonelderly						
Renters	778	62.08	2.83	878	56.20	-10.22
Homeowners	176	62.81	4.41	347	66.46	-11.75
All nonelderly	954	62.22	3.12	1,225	59.11	-10.65
All	1,009	60.66	2.20	1,375	56.22	-11.66

SOURCE: Calculated by HASE staff from HAO Management Information Reports. Data are for recertifications processed during program years 4 and 5: July 1977 through June 1979 in Brown County and January 1978 through December 1979 in St. Joseph County.

NOTE: Net change measures the average monthly savings in allowance payments as a result of recertification. A negative amount indicates a net increase in program benefit payments.

- When the average net changes are extended over the six-month period that they affected payments, the average savings was $22 and $41 for elderly recipients in Brown and St. Joseph counties, respectively. The average savings for the nonelderly was $106 in Brown County and $166 in St. Joseph County.

Annual Recertifications

- For Brown County, the average gross and net changes were higher for annual recertifications than for semiannual recertifications. But for St. Joseph County, the average change was a little lower for annual recertifications. However, except for the average net change for the elderly, the average changes were still greater in St. Joseph County.
- The average net change for nonelderly households was still four to five times greater than for elderly households in both sites.
- When the average net changes are extended over the six-month period that they affected payments, the average savings for Brown County elderly households was $33 compared to $31 for St. Joseph County. For nonelderly households the average saving was $132 in Brown County and $163 in St. Joseph County.

Special Recertifications

- For special recertifications, the average gross change was higher than for semiannual and annual recertifications for all household types. This reflects the more selective nature of

the special recertifications--most were not processed unless the effect on payments was $10 or more per month.

- The principal difference for special recertifications was that for most clients the net effect was an increase in payments. Only for Brown County nonelderly households did special recertifications result, on average, in a reduction in payments. But because of the much greater rate of special recertifications for nonelderly households, the result of all Brown County special recertifications was a decrease in allowance payments--an average of $2.20 per month. For St. Joseph County the result was quite different; the average effect of a special recertification was an increase in payments of $11.66 per month.
- Since special recertifications could occur at any point between regular recertifications, their average effect on total payments was somewhat less than the higher monthly average would indicate. Assuming that, on average, the special recertifications occurred at the mid-point between regular recertifications, the average effect on program outlays was an increase of $41 for Brown County elderly with special recertifications and $60 for St. Joseph County elderly. For Brown County nonelderly recipients, the average change was a decrease of $9 compared to an average increase of $32 for nonelderly recipients in St. Joseph County.
- The effect of special recertifications on total allowance payments was also much less than for regular recertifications because they were only about 6 percent of all recertifications.

Nonetheless, we judge that they were important in helping clients with hardships and in maintaining program integrity by catching many of the largest income increases earlier than if only the regular recertifications had been conducted.

We have made the point that the rate of terminations has a substantial effect on the average change in allowance payments. The higher termination rates for the nonelderly and for St. Joseph County households in general are an important part of the reason for the higher average changes for these groups. To illustrate this, Table 3.5 compares the average change in payments for continuing eligibles and terminees in Brown County for each type of recertification. The average change for clients having their participation terminated (i.e., whose payments were reduced to zero) is many times the average change for those remaining eligible. While the changes for the elderly are lower than for the nonelderly in each category, the most significant difference in the overall average net change is the termination rate.

The overall effect on program benefits is perhaps the most important way to evaluate whether a selected frequency for recertifications is appropriate. However, another concern for program integrity is the number of very large changes that would have gone undetected longer with less frequent recertifications. Table 3.6 summarizes allowance changes by the size of the change. For the elderly, fewer than 0.5 percent had changes at semiannual and annual recertifications of more than $100 per month, and fewer than 5 percent had changes of $50 or more per month. However, for the nonelderly, 10 to 13 percent in St. Joseph County and about 7 percent in Brown County had changes of more than $100 per month.

Table 3.5

CHANGE IN NET ALLOWANCE PAYMENTS DUE TO RECERTIFICATION BY CLIENT STATUS AFTER RECERTIFICATION: BROWN COUNTY ONLY

Client Status After Recertification	Elderly		Nonelderly	
	Number	Average Monthly Net Change in Payments ($)	Number	Average Monthly Net Change in Payments ($)
Semiannual Recertifications				
Remain eligible	2,833	2.65	4,178	6.72
Participation terminated	48	60.05	731	80.30
Total	2,881	3.61	4,909	17.68
Annual Recertifications				
Remain eligible	2,526	2.76	3,124	7.80
Participation terminated	135	56.39	750	81.28
Total	2,661	5.48	3,874	22.02
Special Recertifications				
Remain eligible	53	-16.73	893	-6.51
Participation terminated	2	66.09	61	144.15
Total	55	-13.72	954	3.12

SOURCE: Calculated from Brown County HAO Management Information Reports. Data are for recipient recertifications processed during program years 4 and 5--July 1977 through June 1979.

Table 3.6

PERCENTAGE DISTRIBUTION OF CHANGES IN MONTHLY ALLOWANCE ENTITLEMENTS DUE TO RECERTIFICATIONS BY SIZE OF CHANGE: PROGRAM YEARS 4 AND 5

Size of Change in Monthly Allowance Entitlement	Brown County		St. Joseph County	
	Elderly	Nonelderly	Elderly	Nonelderly
Semiannual Recertifications				
Less than $10	91.8	54.9	85.2	50.7
From $10 to $50	6.5	25.9	11.2	25.7
From $50 to $100	1.6	13.0	3.1	13.7
Greater than $100	.1	6.1	.5	10.5
Total	100.0	99.9[a]	100.0	100.0
Annual Recertifications				
Less than $10	77.4	45.5	75.0	42.0
From $10 to $50	18.8	32.7	20.3	31.2
From $50 to $100	3.6	14.4	4.4	13.9
Greater than $100	.2	7.4	.3	12.9
Total	100.0	100.0	100.0	100.0
Special Recertifications				
Less than $10	21.8	6.9	20.7	8.8
From $10 to $50	54.5	40.6	57.3	41.6
From $50 to $100	20.0	33.2	19.3	32.6
Greater than $100	3.6	19.3	2.7	17.6
Total	99.9[a]	100.0	100.0	100.0

SOURCE: Calculated by HASE staff from HAO Management Information Reports.

[a]Does not total 100 percent due to rounding.

About 25 percent in St. Joseph County and 20 percent in Brown County had changes of more than $50 per month. Not only was the average change much lower for the elderly, but only a very small percentage of the elderly had large changes.

For special recertifications, a much greater percentage had large changes in payments. About 81 percent of the elderly and 93 percent of the nonelderly had changes greater than $10 per month, and about 50 percent of the nonelderly recertifications resulted in changes of over $50 per month.[3]

COST EFFICIENCY OF THE HAO RECERTIFICATION SYSTEM

The HAOs conducted more frequent recertifications than are typical of other housing programs. Were these additional recertifications worthwhile, given our criteria for evaluation--accuracy and equity, client burden, and cost efficiency? Could a modified system have better balanced these competing objectives?

Before answering these questions, we compare administrative costs between the types of recertifications and program sites. (See Table 3.7.) Special recertifications were the most expensive to process: $65 each in Brown County and $85 each in St. Joseph County. Even though special recertifications used procedures similar to semiannual recertifications, they were much more expensive. There are two reasons for

[3] Given the rules for processing special recertifications, we expected that even fewer would have changes of less than $10 per month. Those that did occur are primarily cases in which there was a change in the head of household. The higher rate for the elderly probably reflects the higher likelihood of death or a move to a full-care facility. However, we again note the very low rate of special recertifications for the elderly.

Table 3.7

COMPARISON OF ADMINISTRATIVE COSTS AND THE CHANGES IN ALLOWANCE PAYMENTS DUE TO RECERTIFICATIONS

Client Group	Brown County			St. Joseph County		
	Average Administrative Costs ($)	Average Effects on Payments ($)[a]		Average Administrative Costs ($)	Average Effects on Payments ($)[a]	
		Gross	Net		Gross	Net
Semiannual Recertifications						
Elderly	(b)	28.86	21.66	(b)	42.26	40.98
Nonelderly	(b)	150.72	106.08	(b)	208.02	166.44
Total	24.16	105.66	74.88	14.34	135.06	109.92
Annual Recertifications						
Elderly	(b)	54.84	32.88	(b)	61.02	30.96
Nonelderly	(b)	180.72	132.12	(b)	216.09	163.20
Total	64.32	129.60	91.74	54.85	136.74	95.34
Special Recertifications						
Elderly	(b)	100.86	-41.16	(b)	97.86	-59.52
Nonelderly	(b)	186.66	9.36	(b)	177.33	-31.95
Total	64.78	181.98	6.60	84.93	168.66	-34.98

SOURCE: Administrative costs were calculated from data provided by Kingsley and Schlegel (1982). Direct costs from Tables D4 and D8 were added to an estimate of indirect cost based on the ratios provided in Table 3.1. Total costs were then divided by the total number of recertifications for the relevant periods from Tables B2 and B3.

NOTE: 1. The average administrative cost for St. Joseph County for semiannual recertifications is lower than for Brown County in part because no manual data reviews were conducted in St. Joseph County. 2. The average cost of special recertifications at both sites, as compared to semiannual recertifications (for which a generally similar procedure was used), is higher because: (a) special recertifications initiated, but which did not meet the threshold requirements, are not reflected in cases processed, but administrative costs of that limited processing are included in the average; and (b) all special recertifications processed involved significant changes, while a large portion of the semiannual recertifications required less processing costs because no change was reported.

[a]For semiannual and annual recertifications the average monthly change from Table 3.4 has been multiplied by six to reflect the period until the next regular recertification. However, for special recertifications the monthly change has been multipled by three, reflecting the mid-point between regular recertifications.

[b]The administrative cost data do not permit a breakdown of processing costs between elderly and nonelderly recertifications.

this. First, the costs of all special recertification processing are charged only to the cases actually processed. All client requests and HAO contacts with clients that did not result in changes were not processed completely, but costs were incurred. Second, while many semiannual recertifications required little processing because of no change reported, all cases qualifying for a special recertification required considerable processing.

For annual recertifications, Brown County spent an average of $64 and St. Joseph County spent $55. This is much higher than the $24 and $14 spent by the two sites, respectively, for semiannual recertifications. This difference was anticipated because of the differing forms of the two types of recertifications, higher verification rates for annual recertifications, and because assets were reexamined only at annual recertifications.

The lower cost per regular recertification in St. Joseph County is due largely to lower indirect costs per case resulting from greater volume and lower verification rates. The difference is most striking for semiannual recertifications, with Brown County costs 70 percent higher per case processed. An important reason for this difference is that the St. Joseph County HAO did not conduct separate manual data reviews for semiannual recertifications. The St. Joseph County method did not result in a significantly larger error rate and is the preferable procedure.

Overall, the HAO system of regular recertifications at six-month intervals was cost efficient. The costs of conducting the reviews, on average, were less than the allowance payments saved over a six-month

period. Table 3.7 compares average administrative costs with the average effect on payments.

Because of much lower administrative costs, semiannual recertifications were most efficient by this measure. Brown County reduced allowance payments $3 for each $1 spent on administering the recertifications; St. Joseph County saved $9 for each $1 spent on administrative costs. For annual recertifications the return was much lower but was still substantial.

While the regular recertifications were cost efficient overall, they were not so for all client groups. For the elderly, only in one case (semiannual recertifications in St. Joseph County) were costs lower than the net reduction in allowances. For the nonelderly, however, the saving was at least $2 for each $1 spent on administrative costs.

Special recertifications were clearly not cost efficient and were the most expensive to process. However, they occurred infrequently, about 60 per month in Brown County and 105 per month in St. Joseph County (6 percent of total recertifications) during the final two years of the experimental period. And they were designed for special circumstances--to improve equity for clients experiencing large losses in income and to improve program integrity and client equity by reflecting earlier the more predictible large increases in income.

Should the HAOs change their current system? A number of options involving more selective action would probably be more cost effective. The HAO computer system makes this feasible by making it possible to select cases based on particular criteria and then monitoring the processing. One change the HAOs might consider is *discontinuing semiannual*

recertifications for the elderly clients. Data on Table 3.7 indicate that this would have been cost effective for Brown County but not for St. Joseph County. However, we judge that overall this procedure would be cost effective for both sites if two groups of elderly households were required to continue to receive semiannual recertifications: households with employment income and those with nonelderly household members.[4]

For both sites, annual recertifications were also not cost effective for elderly households. The incomes of elderly clients generally increased but not enough to offset the costs of a full interview. It is important to reflect the regular annual increases from Social Security and SSI, but perhaps a less costly procedure (e.g., using questionnaires) might be substituted for the interview every other year. The effects of asset changes on income are seldom very large so that biennial reviews of assets would probably be often enough. This system would still catch the income changes in Social Security and SSI that occur each year and which, given the large number of elderly clients, can have a significant effect on total program outlays.

---

[4] Because the HASE program provided a standard 10 percent deduction from income for elderly-headed households (and only 5 percent for nonelderly-headed households), there was an incentive for households with both elderly and nonelderly members to designate an elderly person as household head. Therefore, these households and those with employment income did not have the stable incomes from pensions and SSI that caused most elderly households not to experience large income changes. It should also be noted that many terminations of elderly households at semiannual recertifications merely coincided with the timing of the recertification and would have occurred anyway (e.g., death or moving to a full-care facility). Therefore, these changes would have occurred without semiannual recertifications being conducted.

For the nonelderly, it would clearly not be cost efficient to review eligibility less than semiannually; in fact, it may be cost effective to review eligibility even more frequently (e.g., quarterly). Assuming that changes occur evenly within the six-month period between recertifications, the average savings from quarterly reviews would be about $60 in Brown County and $80 in St. Joseph County, well above the cost of conducting a review using a questionnaire. This would clearly increase the HAOs' workload for these clients (and the burden for them of reporting), but if offset by fewer reviews for elderly households, the total system might not require more total workload and might achieve a substantial reduction in benefit costs, depending on the mix of clients in the program.

To illustrate, let us assume a program with 1,000 elderly and 1,000 nonelderly clients. If annual interviews and quarterly questionnaires were adopted for the nonelderly and alternating questionnaires and interviews were used annually for elderly clients, a total of 3,000 interviews and 7,000 questionnaires would be required over a two-year period. The current HAO system would require 4,000 each of interviews and questionnaires. Using St. Joseph County average costs for processing ($14.34 per semiannual and $54.85 per annual), the revised system would be less costly while performing 2,000 more reviews and could be expected to achieve greater savings in benefit costs.

Our example assumes no attrition--a bad assumption--but it does illustrate how other selective action approaches may be used at perhaps less administrative cost but with significant results for program costs. Here we simply make the point; elsewhere we have examined options to the

current system in more detail that do account for attrition (see Kingsley, Kirby, and Rizor, 1982). Here it is enough to note the potential for improving cost effectiveness with alternative schemes and to indicate that it is probably cost effective for other housing programs to review eligibility for nonelderly households more frequently than the current annual cycle.

It may be possible with further analysis to make other improvements in efficiency by identifying some nonelderly groups whose incomes are not likely to change and for whom annual reviews would continue to be sufficient (e.g., self-employed persons whose income changes can often only be determined at the end of the tax year, persons receiving the maximum AFDC or SSI benefits over an extended period of time.) Another alternative might be to schedule certain groups for reviews soon after regular changes occur (e.g., late summer for those receiving Social Security pension income; after April 15 for self-employed persons). The benefits of each alternative should be compared to the effects on costs and administrative efficiency and to overall client equity and burden. But we judge that the potential benefits of several alternatives do warrant further testing in existing programs.

Finally, it should be noted that these changes are here evaluated in the framework of HAO administrative costs that probably could not be replicated in an ongoing program. Taking this into account, perhaps the alternative that holds most promise for current housing programs is semiannual questionnaires and annual interviews for the nonelderly, and only annual reviews (alternating between interviews and questionnaires) for the elderly.

IV. CONTROLLING ERROR

Controlling "fraud and abuse" in public programs and "welfare fraud" have been popular media and political campaign themes for many years. Unfortunately, the terms have been used to cover such a variety of real or supposed sins that they have lost much of their usefulness for analysis. Fraud remains a useful term when restricted to intentional deception to illegally obtain benefits or avoid obligations. In benefit programs this most frequently means intentionally failing to report required information or reporting incorrect information to obtain benefits to which one is not entitled. "Abuse" is a much less useful term for analysis; its popular uses include mismanagement, manipulation by participants or staff of program rules to obtain additional benefits, and perverse incentive systems that discourage recipients from seeking employment. "Welfare fraud" is used for actual cases of fraud but is also used to mean "abuse."

A more useful term for analysis is "error." In general, error is used here to identify any situation in which participants do not comply with program requirements or staff members do not accurately apply program rules.[1] Within these errors an important distinction is made between those errors that affect program payments and those that do not. Most analysis of errors in benefit programs is limited to errors that affect eligibility or benefits, but it is important to know how

[1] In Section III we use error in another way: to describe the difference between actual household means and the estimate of those means resulting from the proper application of program definitions and rules, and proper and complete reporting of required information by participants.

nonpayment errors are treated in comparing error results between programs. For example, the AFDC program records as an error in its quality control system the failure of an agency to meet the program requirement of obtaining a Social Security number for all household members 16 years of age or older, regardless of whether that omission affects benefit payments. This is considered important because not having the Social Security number inhibits quality control efforts in which the numbers are used to check the accuracy of reported income. For much the same reason, the HAOs maintained data on all staff errors in their error monitoring system. For example, failure to obtain adequate documentation or signed consent forms for undocumented information prevented its verification. Also, coding errors jeopardized analysis of program data. Other programs (e.g., AAE, SSI) report only those errors that affect payments.

Another distinction is between "error" and "change." For example, the certification process for the AAE reported both client reporting errors and changes in client circumstances that had occurred between the elicitation and the certification. (Hamilton, 1979.) The HAOs and the AFDC program both report errors in client reporting based on the circumstances at the time of elicitation, regardless of whether changes occurred between the elicitation and the time the verification or quality control was completed.

These differences in the definitions of error make it difficult to compare error rates between programs. Another factor complicating these comparisons is the opportunity for error in the programs, that is, the number and complexity of data elements and calculations involved. These

can vary by program design and client populations. Because of research requirements for coding, participation of homeowners, and the generally higher average income of participants, the HAOs had a comparatively large number of opportunities for error.

TYPES OF ERRORS IN BENEFIT PROGRAMS

Errors in public benefit programs can be categorized in several ways, but perhaps the most useful distinctions are between participant and staff errors and, for both of these, between intentional (fraud) and unintentional errors. Among payment errors, payments to ineligibles are distinguished from incorrect payments to eligibles. Payment errors to eligibles may be either underpayments or overpayments, and total payment error can be expressed as gross or net error.[2]

The most common participant errors are: (1) failure to report required information (e.g., failure to report a source of income), (2) incorrect reporting (e.g., reporting the income source but incorrectly reporting the amount of income), and (3) failure to report changes as required. Each of these error types may be either intentional or unintentional; however, the most common intentional errors are failure to report a source of income or an asset.

The most common staff errors include miscalculation, misinterpretation of documentation or of information provided by a third party, failure to apply the program rules and procedures properly, and late

[2] Gross error is total error, regardless of whether it results in overpayment or underpayment. Net error subtracts underpayments from overpayments. A positive net error indicates an average overpayment to participants.

processing. Those errors also could be intentional or unintentional; however, the most common intentional errors are probably those in which records are altered or incorrect information is used by staff members to pay ineligibles or to pay excess amounts to eligibles. (Intentional errors may also penalize clients; i.e., purposeful errors to deny benefits to eligible households.)[3]

TECHNIQUES FOR PREVENTING AND DETECTING ERRORS

Many techniques may be used to prevent and detect errors in benefit programs. Often, prevention is considered in the design of other aspects of the program (e.g., the use of interviews instead of self-administered forms, the separation of functions in the benefit payment system) or in the amount of emphasis of other functions (e.g., vigorous prosecution of fraud may serve to deter others contemplating fraud). The error detection function is normally centered on special quality control techniques for that purpose. In some cases the programs can choose between techniques and in others the choices relate to the level of effort applied (e.g., frequency of third-party verification, the size of the quality control sample).

The distinction between detection and prevention is not always clear because detection procedures may prevent future errors, particularly if they make the probability of detection high.

---

[3] There are other types of intentional errors (e.g., extortion and kickbacks in contracting, extortion of clients) against which benefit programs must guard, but these are not included in this discussion if they do not affect the accuracy of program benefit payments. It should be noted that the HAOs and their auditors detected no cases of intentional staff error, abuse of clients, or misuse of program funds.

The development over the past decade of national quality control programs for the AFDC, SSI, and Food Stamp programs has improved substantially the administration of those programs. The QC systems have focused attention on error control, provided data on the error rates and types of errors, and enabled measurement of changes in error rates. These QC data have been used to identify those techniques and factors of performance that are most highly associated with lower error rates, thus providing opportunities for further reduction in the national error rates.[4] Using this information, a variety of techniques have been used in these programs.

- Improve recruitment and training for eligibility workers.
- Improve timeliness of processing, especially of eligibility redeterminations.
- Improve elicitation through face-to-face interviews, improved forms, and increased use of hard-copy documentation.
- Improve specification of program definitions and procedures to provide better guidance for eligibility workers.
- Simplify program rules and requirements to reduce opportunities for error.
- Increase documentation and verification of client-provided information.

---

[4] See particularly Bendick and Campbell (1978), which identifies five strategies associated with lower error rates for the AFDC program: (1) reduce the backlog of overdue eligibility determinations, (2) make program documents easier to read and more comprehensible for participants, (3) raise the skill level of eligibility workers, (4) simplify program rules to reduce opportunities for error, and (5) adopt selective action strategies to target resources to cases based on the probability of error or a significant household change.

- Increase the frequency of eligibility redeterminations.
- Improve the quality and reduce the complexity of documents provided to clients; improve the design of reporting requirements to improve client compliance.
- Use selective action techniques to target administrative resources to where they will have the greatest payoff; this may involve increasing reporting and verification requirements for "error-prone" cases and reducing requirements for others.
- Use file matching between benefit programs and with employment income files maintained by the Social Security Administration and the states to detect unreported and underreported income.
- Increase incentives for administrators to achieve lower error rates; this includes financial penalties as in the AFDC program and financial bonuses as in the Food Stamp program.[5]

The HAOs used a wide variety of those techniques to prevent and detect error. The remainder of this section discusses the HAO techniques. First we will review the techniques for preventing, detecting, and correcting participant errors with particular emphasis on third-party verification. Next we will discuss the prevention and detection of staff error. Finally, we look at participant and staff error data to assess the overall effectiveness of the HAO system.

---

[5] For a summary of techniques used in a variety of benefit programs, see Griffiths and Callahan (1980).

CONTROLLING PARTICIPANT ERROR

Because the HAOs did not significantly vary their intake procedures or eligibility rules during the experiment, it is not possible to measure the effectiveness of individual procedures in preventing errors. Nevertheless, it is clear that the elicitation process is the most important for error prevention. Error detection activities may serve as a deterrent to some error, particularly intentional misreporting, but the quality and thoroughness of the process for eliciting the eligibility information is key to error prevention. Key elements for error prevention in the HAO elicitation process were the face-to-face interview, well-designed forms, detailed processing guidelines, well-trained and qualified staff, fraud warnings issued as a part of the initial elicitation, and the use of documentation wherever possible with the requirement for signed consent forms when documentation was not available.

To illustrate the importance of the preventive features of the system as compared to the error detection features, we note that there was very little client error to be detected after the elicitation. We estimate that major client reporting errors existed after elicitation in only 2.3 to 3.1 percent of the enrollments and 1.8 to 2.8 percent of the annual recertifications at the two sites. The net effect of those errors on allowance payments would have been only 0.6 percent of the average annual allowance payment. That error rate was then further reduced by HAO error detection procedures.

While the elicitation procedures are most important for preventing errors, the detection procedures are necessary for measuring the effec-

tiveness of the prevention efforts and are useful in analysing the types and causes of errors to assist the design of effective corrective actions. Some detection procedures (e.g., verification) also reduce the overall error level of program payments because the detected errors are corrected. Other procedures, such as audits and most quality control programs, select only a small number of cases to measure the error rate so they do not themselves result in a significant number of corrections to erroneous payments.

The HAOs used four principal procedures for detecting participant errors:

- Third-party verification. Verification with third-party sources of the accuracy of information provided by the participants was performed in a large number of cases. Errors discovered by verificaton were corrected and any overpayments were collected.
- Checks for consistency. At each eligibility review the HAO compared the data reported by the client with that reported at the prior recertification or enrollment to determine if the differences were due to changes or misreporting. Occasionally the timing of reported changes had to be documented by clients to verify that misreporting had not occurred.
- Misreporting reviews. Cases referred by third parties or staff or those that met certain criteria (e.g., long periods of time with extremely low income) were reviewed by a special HAO team to determine if misreporting had occurred. If fraud was suspected, the case was referred to the HUD Office of the

Inspector General for review. If other reporting errors were discovered, corrections were processed and collection of overpayments was attempted.

- Annual independent audits. Each year the HAOs contracted for an audit that included an examination of the accuracy of payments made to a random sample of recipients. This was essentially a check on the effectiveness of HAO procedures, but it also examined the accuracy of client reporting.

Third-party verification was the most important procedure in detecting unintentional errors, and it was also the most comprehensive and costly procedure for detecting client error. The misreporting reviews were perhaps most important for detecting intentional error, though many referrals to this process resulted from discrepancies discovered during recertifications and verifications.

THIRD-PARTY VERIFICATION

Almost all benefit programs have procedures for verifying with third parties (e.g., employers, benefit sources, financial institutions) some or all of the information provided by the clients affecting eligibility or benefit levels. But among the programs there are differences in the relationship of verification to the timing of benefits, and in the amount of verification conducted (e.g., all sources for all cases, some sources for all cases, all sources for some cases). For example, HUD's Section 8 program emphasizes third-party verification (in writing or by telephone) over documentation supplied by clients, and it requires that verification be completed before benefits begin. The HAO system

emphasized documentation, verified only a sample of the cases, and generally did not delay payments pending completion of verification. An additional feature of the HAO verification procedure was its use of thresholds to determine if apparent verification discrepancies warranted complete precessing. Discrepancies above the thresholds were considered major errors; for those cases client records were corrected and overpayments were collected. Discrepancies below the thresholds (minor errors) were not processed.

Verification Sampling

In general, the HAO sampling procedure was based on the percentage of income and assets supported by hard-copy documentation. The greater the percentage of income and assets documented, the lower the probability of verification. As a result, the HAOs were able to reduce considerably their workload as compared to verifying every case. This procedure also reduced the workloads for third parties, especially other benefit programs such as AFDC and SSI. By concentrating resources on those cases not as well-documented, it was assumed that the HAO would be concentrating its administrative resources where they would have the greatest payoff.[6]

Table 4.1 summarizes the criteria for assigning cases to samples and the percentage selected from each sample. Enrollments and annual

[6] Even if the HAOs had used a blanket verification requirement, there would have been a substantial reduction in verification workload because sources already supported by hard-copy documentation would not have required verification.

Table 4.1

SAMPLING RATE AND VERIFICATION SAMPLE ASSIGNMENT CRITERIA

Sampling Code	Sampling Rate	Sample Assignment Criteria	
		Enrollments and Annual Recertifications	Semiannual and Special Recertifications
A	10 percent	At least 50 percent of total income documented. All income sources of $2,000 or more are documented. Fifty percent or more of total assets are documented (if assets are within $1,000 of the limit, all must be documented).	Reported change in income is less than $40 per month.
B	33.3 percent	Ten to 49 percent of total income is documented. All income sources of $2,000 or more documented. Fifty percent or more of total assets are documented (if assets are within $1,000 of the limit, all must be documented).	Reported change in income is from $40 to $100 per month.
C	100 percent	Less documentation provided than required for 33.3 percent group.	Reported change in income is $100 or more per month.
D	100 percent	Any suspicious case, regardless of the amount of documentation.	Any suspicious cases, regardless of the amount of documentation.
F	0 percent	Full documentation provided.	Full documentation provided.

NOTE: The 0 percent sampling rate category was added in April 1978 in St. Joseph County and May 1978 in Brown County; prior to that time similar cases were assigned to the 10 percent category. Cases in which clients were determined ineligible were not verified.

recertifications based assignment on the percentage of income and assets documented, but the semiannual and special recertifications based assignment on the amount of the change in income reported.

Processing Major Errors

For cases selected for verification, the HAO sent a signed consent form to each third party to obtain information on the income, asset, or deduction that had been reported but not documented in the interview. These forms asked questions about income or assets for the periods relevant to the timing of the interview. When the forms were returned by the third parties, the data they contained were compared with the report of the client. If there was an apparent discrepancy that affected eligibility, affected income by $40 or more per month, or affected assets by $1,000 or more, it was considered a major error. The client was then contacted to determine if he or she disputed the information provided by the third party. The client could provide documentation to support his case; in some cases the HAO made a second contact with the third party, usually by telephone, to check the accuracy of the report.[7] Once the HAO determined the amount in error, a correction was made to the client's file and the amount of any overpayment or underpayment was determined.

Errors not meeting the definition of a major error were not processed. The effect of these small errors on payments was not considered worth the cost of contacting the clients and processing the errors.

Timing of Verifications

In general, the HAO verification process did not hold up processing of a case while the client's information was verified. The client was

[7] The most common problem was a discrepancy between the time period for which information was requested by the HAO and that reported by the third party.

given the option of bringing in documentation prior to processing or of having the processing continue; but it was understood that if a discrepancy occurred at verification, the client would be required to repay any amount received in error.

The only situation in which a client was required to return with documentation or have the verification form returned by the third party prior to processing was when the client could not make an estimate of the amount of an income or asset. Also, prior to August 1977, when nonelderly, nondisabled single persons became eligible for the program, the HAOs often encouraged clients to await the return of the disability certification upon which eligibility hinged.

One other situation deserves special attention. During much of the second program year (1976), the St. Joseph County HAO experimented with holding up processing of cases until clients could provide hard-copy documentation. This considerably reduced the number of third-party verifications, but at the price of delays in processing and increased backlogs of cases. Given the low verification error rates generally, this option for reducing verifications probably did not justify the processing delays. During the third program year, the HAO returned to a policy of not holding up processing for most cases.

The feasibility of continuing to process cases not yet verified in large part depends on the number of cases with errors and the length of the lag time between processing and verification. If the verification error rates were high, the costs of processing corrections and of collecting overpayments might have offset the value of continued processing. However, if those rates were not high, then the principal effect

of delaying processing would have been to delay payments to clients. The HAOs usually succeeded in getting rapid responses from third parties. The longest lags were for Social Security income when the requests for information were forwarded outside the community, for physicians who were often reluctant to judge a client's disability, and for some employers.

For cases with errors, the longer the error exists before the verification is completed, the larger the amount of the overpayment. That presented an added hardship for clients who had limited means to make repayments and increased collection costs and losses for the HAO. While the HAO system was very successful because of its low error rates and reasonably rapid responses from third parties, these factors should be taken into account in recommending the procedure for another program.

The Verification Data

The remainder of this discussion on verification reports the results of the HAOs' sampling procedure and analyzes differences in verification error rates and amounts between sites and by client group and verification sampling code. The analysis uses three sources of data:

- HAO Monthly Program Reports. These reports provide continuing counts of cases processed, cases verified, and cases with major verification errors. For Brown County these reports also include counts of minor verification errors. This is the only source from which the actual number verified can be compared with the number of errors by verification code. However, it

does not provide information on the characteristics of the clients. Also, because of the lag from the completion of a transaction to the completion of the verification of that transaction, the population of cases from which those verified were selected must be estimated from the verification codes assigned to the cases.

- Sample of Verification Errors. This file contains data on samples of major errors for both sites and of minor errors for Brown County. The samples were selected from the HAO verification processing logs and then the verification data were collected by HASE staff from the hard-copy client records. This information was available for program years 2 through 4 and does contain data on client characteristics.
- Analysis File of Enrollments and Recertifications. To match the characteristics of clients with errors to those processed and verified, a computer file based on HAO administrative records was used to estimate the characteristics of the population of cases processed and verified. This file contains client characteristics gathered upon the completion of each enrollment and recertification, but processing lags cause them not to match the counts from the HAO monthly reports.

The data from these sources and the linkage between them are shown in Appendix C. While we judge that these data reflect well the actual experience of clients, the number of errors is small, so estimates used to link the data are subject to error.

Verification Rates

With sample assignments for enrollments and annual recertifications based on the documentation, the clients had a significant effect on this portion of the HAO workload. Theoretically, the HAOs' verification rates could have ranged from 0 to 100 percent. In fact, they ranged from one-fourth to two-thirds of the cases in a particular year. Over the five years of the program in Brown County, just over half of all enrollments and fewer than half of the annual recertificatons were verified. The St. Joseph County rates were lower--less than half of enrollments and only a third of annual recertifications. Table 4.2 summarizes the verification rates by transaction type for each program year.

The verification rates for semiannual and special recertifications usually depended on the size of the income change reported. Because most cases had no change or small changes at semiannual recertification, most cases were assigned an "A" code. The codes assigned would indicate a consistent 15 percent verification rate for each site. However, during year 2 both HAOs discontinued verifications of "A" code cases because the errors detected did not appear to justify the high costs of processing.[8] The rate of verification for special recertifications was much higher because a change of $40 per month in income was required for most cases to be processed as a special recertification; however, it was also reduced by clients' documentation.

[8] Because semiannual recertifications were conducted using mail-back questionnaires, the HAOs did not routinely obtain documentation or consent forms. The costs of obtaining these for cases selected for verification in the "A" category were not considered worthwhile given the low error experience of the first two years. Staff members retained the option of assigning a case to the "D" category to ensure verification.

Table 4.2

CASES PROCESSED AND ESTIMATED VERIFICATIONS BY TRANSACTION TYPE AND PROGRAM YEAR

Program Year	Brown County		St. Joseph County	
	Cases Processed	Percent Verified	Cases Processed	Percent Verified
Enrollments				
1	3,249	54.9	3,554	57.7
2	1,794	65.8	4,123	31.3
3	1,732	53.5	3,903	39.9
4	1,646	45.0	3,099	44.7
5	1,718	42.0	3,867	49.3
Total	10,139	52.8	18,546	44.2
Annual Recertifications				
1	--	--	--	--
2	1,923	69.4	2,094	24.2
3	2,247	64.3	3,776	41.1
4	2,719	39.3	4,644	29.5
5	2,919	23.8	4,642	32.4
Total	9,808	46.3	15,156	32.5
Semiannual Recertifications				
1	(a)	--	(a)	--
2	3,524	11.7	4,185	7.6
3	3,293	6.6	5,343	2.8
4	3,314	4.9	5,484	4.5
5	3,672	11.6	5,468	11.1
Total	13,803	8.8	20,480	6.4
Special Recertifications				
1	(b)	--	143	70.6
2	178	52.3	756	41.7
3	429	54.5	771	79.3
4	407	53.3	648	45.8
5	553	26.4	729	40.6
Total	1,567	44.0	3,047	54.4

SOURCE: Cases processed are from HAO Monthly Program Reports. Estimates of cases verified (except for semiannual verifications) were calculated by HASE staff based on the verification codes assigned as follows:

$$E_v = \frac{.1n_a + .333n_b + n_c + n_d}{N} ,$$

where $N = n_a + n_b + n_c + n_d + n_f$

n_i = number of cases in the ith category

$i = a, b, c, d, f$.

The semiannual estimates of percent verified reflect a change in HAO policy in year 2 to discontinue verifying "A" coded cases.

[a]No verifications for semiannual recertifications were reported as completed during year 1; therefore, the cases recorded as processed by HAO Monthly Reports (950 in Brown County and 262 in St. Joseph County) are included in the year 2 totals of cases processed.

[b]A small number of special recertifications were processed by the Brown County HAO during year 1, but HAO records do not provide an accurate accounting for them; therefore, they are included in the year 2 total.

The overall rates mask rather large differences in verification rates that occurred between the two sites and from year to year at each site. These changes are illustrated in Figure 4.1. The largest differences for enrollments and annual recertifications occurred during years 2 and 3 when St. Joseph County verified a much lower rate than did Brown County. Much of this is due to holding cases while documentation was obtained by the clients. During the final two years the rates were similar for the two HAOs.

The verification rates for enrollments and annual recertifications were significantly different for various client groups. Figure 4.2 illustrates the differences by tenure and between elderly and nonelderly participants for program years 1 through 4. For both sites the rates for elderly households were higher than for nonelderly households, but there was little difference between homeowners and renters for these groups. The most striking difference is the much higher rate for elderly households in Brown County, where about 80 percent of the cases were verified. The generally higher rate for the elderly is primarily because of the high incidence of income from Social Security for which the only acceptable documentation available to the clients was the monthly check itself. Social Security notifications expressed benefit changes in percentage terms that could not be readily translated into current dollars.

For annual recertifications Brown County rates were consistently higher than for St. Joseph County for all client groups. However, Brown County reduced its high rate for the elderly in year 4 by changing its criteria for verifying the elderly clients. This change discontinued

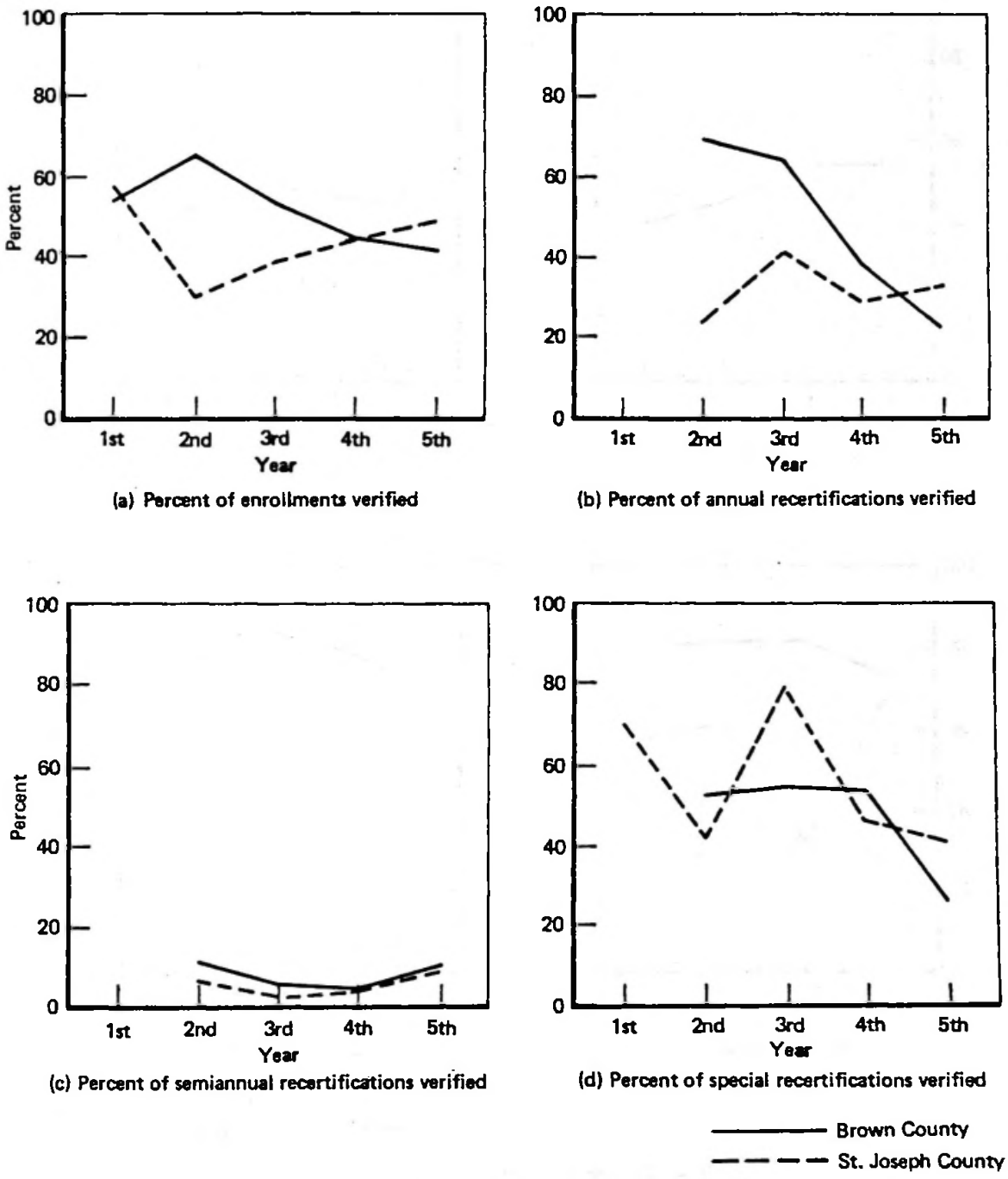


Fig. 4.1 — Percent of cases verified

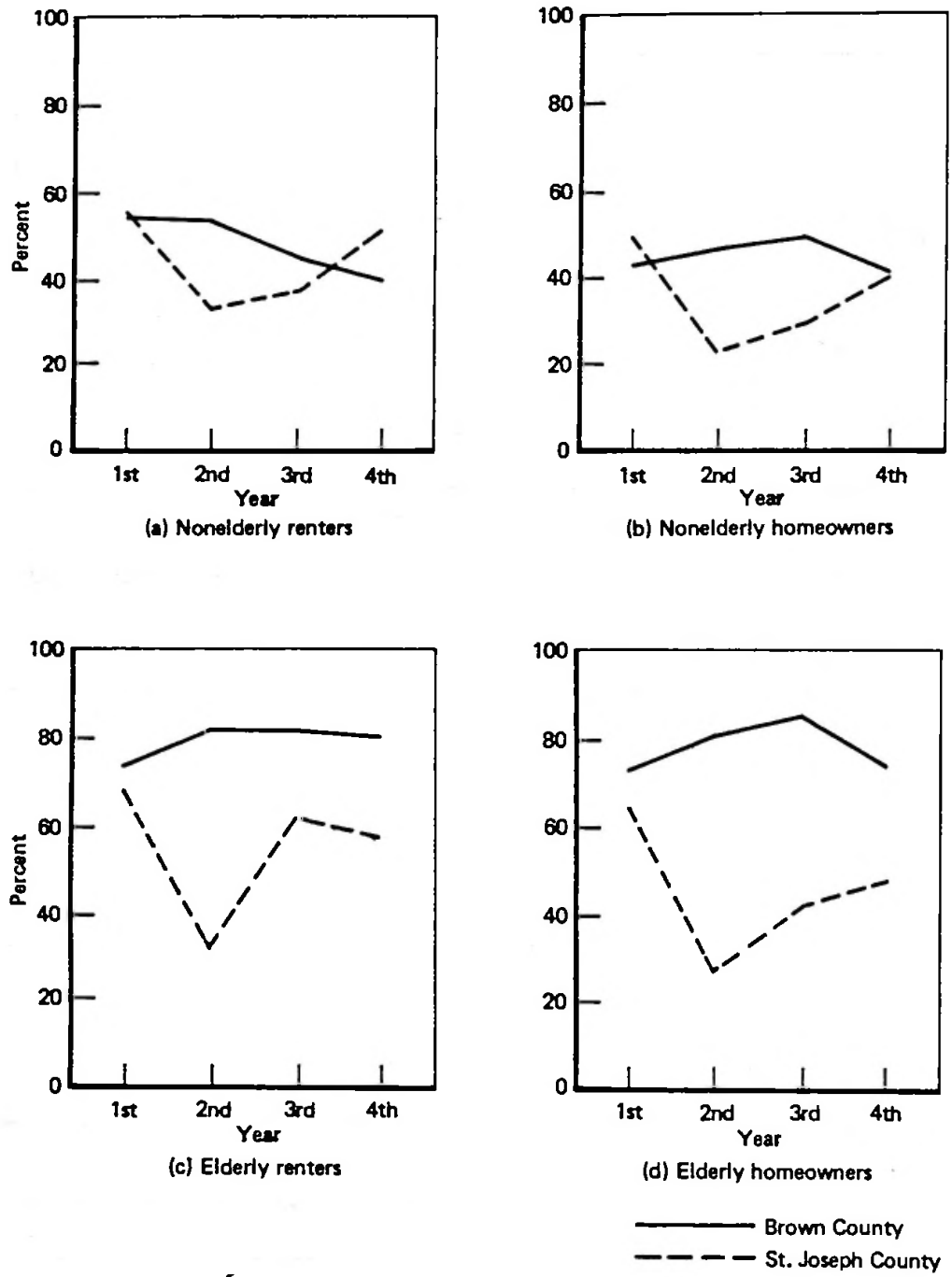


Fig. 4.2 — Percent of enrollments verified

verification of elderly cases in which the only undocumented income was from Social Security or SSI. If the client's report reflected the general changes known for these sources and accounted for any Medicare deductions, it was not verified.

The changes in rates from year to year, then, reflect: (1) changes in HAO verification procedures, and (2) changes in the mix of clients. Brown County enrollments best illustrate the latter point. Rates for the first four years were relatively stable for all four client groups, but the overall verification rate declined significantly in years 3 and 4 due to a much lower rate of enrollments for elderly households with their much higher verification rate.

Verification Error Rates

The overall verification error rates (percent of cases verified with major errors) were similar for the two sites. Table 4.3 summarizes these rates by transaction type for each year of the program. Brown County's overall rate for enrollments was 6.1 percent compared to 5.7 percent for St. Joseph County. The range of annual error rates for enrollment verifications was from 3 percent in year 3 to 9.7 percent for year 5, both for St. Joseph County. The Brown County range was much smaller: from 4.8 percent to 6.9 percent. Annual recertification error rates were generally lower than for enrollments.

The highest verification error rates were for semiannual recertifications, which had by far the lowest rates of verification. Brown County verified 8.8 percent of the cases and found major errors in 6.6 percent of those verified. St. Joseph County verified 6.4 percent and

Table 4.3

CASES VERIFIED AND ERROR RATES BY TRANSACTION TYPE FOR PROGRAM YEARS 1-5

	Brown County			St. Joseph County		
	Verified	Major Errors	Error Rate (%)	Verified	Major Errors	Error Rate (%)
Enrollments						
1	1,739	120	6.9	1,293	63	4.9
2	1,151	55	4.8	1,928	62	3.2
3	964	60	6.2	1,415	43	3.0
4	717	42	5.9	1,291	95	7.4
5	653	42	6.4	1,962	190	9.7
Total	5,244	319	6.1	7,889	453	5.7
Annual Recertifications						
1	—	—	—	—	—	—
2	1,223	45	3.7	461	5	1.1
3	1,553	56	3.6	1,337	28	2.1
4	1,018	53	5.2	1,492	64	4.3
5	725	49	6.8	1,546	91	5.9
Total	4,521	203	4.5	4,836	188	3.9
Semiannual Recertifications						
1	—	—	—	—	—	—
2	412	20	4.9	319	11	3.5
3	217	16	7.4	151	12	8.0
4	163	9	5.5	244	11	4.5
5	426	35	8.2	605	42	6.9
Total	1,218	80	6.6	1,319	76	5.8
Special Recertifications						
1	—	—	—	—	—	—
2	78	5	6.4	401	1	0[a]
3	225	12	5.3	648	15	2.3
4	150	0	0	324	15	4.6
5	197	7	3.6	289	18	6.2
Total	650	24	3.7	1,662	49	3.0

SOURCE: HAO Monthly Program Reports.

[a]Less than .5 percent.

detected major errors in 5.8 percent of the verifications. Special recertifications, with about half the cases verified, had the lowest error rates (less than 4 percent in both sites).

An important test of the HAOs' sampling method is whether the cases assigned to the samples involving fewer than 100 percent selection had lower error rates. The expected pattern is for "A" code rates to be the lowest, followed by "B" code rates. The "D" code, assigned because of suspected misreporting is expected to have the highest error rate. Table 4.4 compares error rates by sampling code. The expected pattern of lower error rates for "A" and "B" code cases did occur. However, the "D" coded cases had error rates greater than those for the "C" coded cases only for annual recertifications. Overall, Brown County appears to have used the "D" code somewhat more successfully than St. Joseph County to target errors.

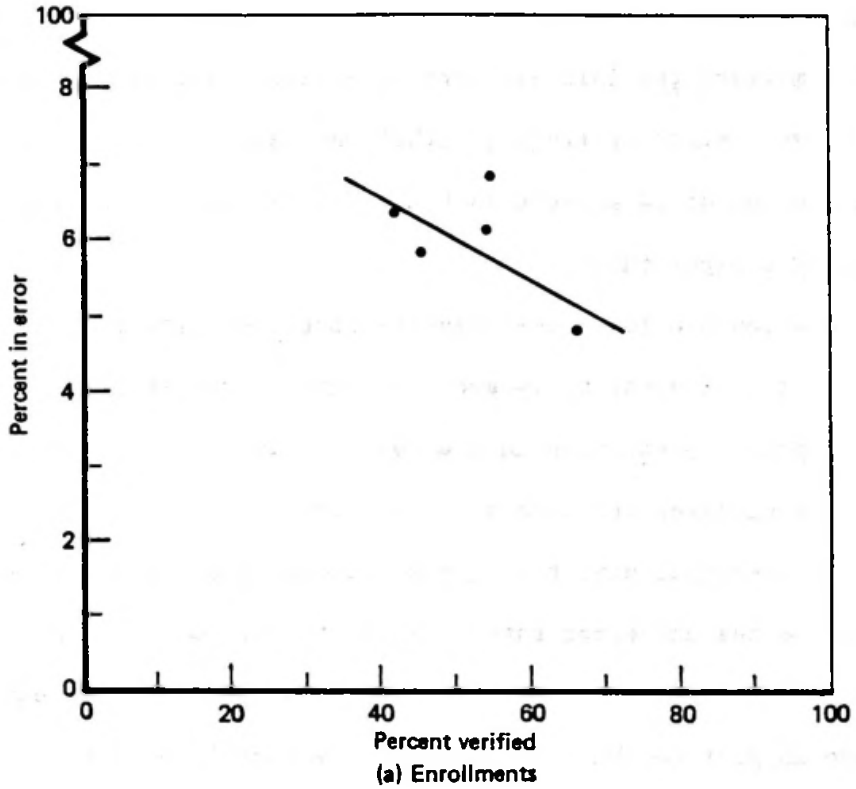
While a low error rate is preferable when applied to all cases, the goal of a sampling system is to detect almost all of the errors with the fewest verifications possible. Thus, a high error rate among cases verified and a very low error rate among cases not verified is preferred. If a verification system were able to target its resources to the cases where they would do the most good, there would be an increase in the error rate as the rate of cases verified goes down, assuming a relatively stable overall error rate. This would indicate that the system was focusing its resources on the cases in which verification errors were most likely to occur. This relationship is observable in the Brown County experience for enrollments and annual recertifications. Figure 4.3 plots the percentages of cases verified with the corresponding error rates among cases verified for each program year. The relationship is

Table 4.4

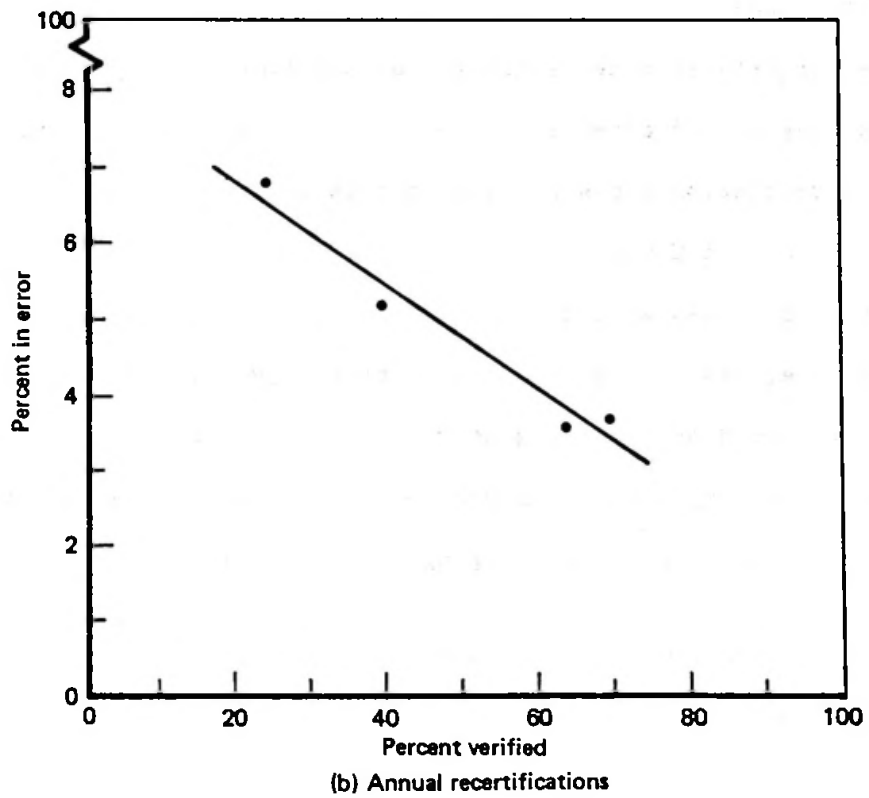
VERIFICATION ERROR RATES BY SAMPLING CODE: YEARS 1-5

Sampling Code	Brown County			St. Joseph County		
	Number Verified	Number of Errors	Percent in Error	Number Verified	Number of Errors	Percent in Error
-Enrollments						
A	404	3	.7	756	8	1.1
B	135	8	5.9	587	10	1.7
C	4,266	280	6.6	5,587	393	7.0
D	439	28	6.4	959	42	4.4
Total	5,244	319	6.1	7,889	453	5.7
Annual Recertifications						
A	308	6	1.9	542	10	1.8
B	125	4	3.2	974	24	2.5
C	3,607	166	4.6	3,071	142	4.6
D	481	27	5.6	249	12	4.8
Total	4,521	203	4.5	4,836	188	3.9
Semiannual Recertifications						
A	219	1	.5	124	7	5.6
B	120	6	5.0	119	5	4.2
C	646	55	8.5	1,038	60	5.8
D	233	18	7.7	38	4	10.5
Total	1,218	80	6.6	1,319	76	5.8
Special Recertifications						
A	42	1	2.4	119	2	1.7
B	32	0	0	71	0	0
C	505	17	3.4	1,404	46	3.3
D	71	6	8.5	68	1	1.5
Total	650	24	3.7	1,662	49	2.9

SOURCE: HAO Monthly Program Reports.



(a) Enrollments



(b) Annual recertifications

Fig. 4.3 — Relationship of verification rates to error rates: Brown County

not strong for enrollments (correlation coefficient = .58); but if the first program year (the initial learning period) is excluded, the relationship is much stronger (.87). Within the range of the HAO's experience, a reduction of 10 percent in the verification rate increased the error rate by 0.5 percent.

The relationship for annual recertifications, with a much wider range of verification rates, is even stronger (correlation coefficient = .98). A 10 percent reduction in the verification rate increased the error rate among cases verified by 0.7 percent.

For St. Joseph County, there is no strong relationship between verification rates and error rates. In fact, St. Joseph County error rates generally increased slightly as verification rates increased. This is due in part to the experiment during year 2, when more client documentation was required. It may also reflect greater changes in the overall error rates for cases processed over time, perhaps due to changes in the mix of clients. It may also reflect that basing selection on documentation rates was just not as successful in predicting error in St. Joseph County.

Neither site was able to systematically analyze the content of verification errors. A system similar to that developed for monitoring staff errors could be developed at relatively little expense, enabling analysis of the sampling system's effectiveness and suggesting the likely effectiveness of other alternatives.

Total Error

The number of errors missed by the HAO sampling procedure can be estimated by assuming that each "A" code error detected reflects nine similar undetected errors and that each "B" code error represents two others not detected. There are two ways in which errors are measured in benefit programs--case error and payment error. The case error rate is the percentage of cases with errors; the payment error rate is the percentage of benefit payment dollars made in error. Table 4.5 summarizes the case and payment error rates for enrollments and annual recertifications including estimates of undetected error for program years 2 through 4. We estimate that the case error rates, before any corrections from verification, range from only 1.8 percent of the annual recertifications in St. Joseph County to 3.3 percent of Brown County enrollments.

Because the errors detected normally involved only a portion of the annual allowance amount and because the "A" and "B" coded errors tended to be smaller than those for the "C" and "D" coded errors, the payment error rates were much lower than the case error rates. The estimated total annual payment error for Brown County enrollments was $2.96; this is equal to 0.3 percent of the average annual allowance payment of $850.[9] The average payment error for annual recertifications in Brown County was $3.79 or 0.4 percent of the average annual payment. The average payment error for St. Joseph County was $5.22 per enrollment and

[9] For the discussion of payment error rate, the data are from program years 2 to 4, the period from which the samples of verification errors were selected. The average allowance payment for the period was calculated from HAO records of total payments made for the period divided by the number of unit years of payments.

Table 4.5

CASE AND PAYMENT ERROR RATES: PARTICIPANT ERROR

	Case Error			Payment Error		
	Number of Case Errors	Percent of Errors	Percent of Cases in Error	Average Net Payment Error Per Case Processed ($)	Percent of Payment Error	Percent of Total Payment in Error
Brown County Enrollments						
Initial Error	175	100.0	3.27	2.96	100.0	.35
Corrected	157	89.7	2.93	2.93	99.0	.34
Uncorrected	18	10.3	.34	.03	1.0	.01
St. Joseph County Enrollments						
Initial Error	268	100.0	2.33	5.22	100.0	.60
Corrected	201	75.0	1.75	3.89	74.5	.45
Uncorrected	67	25.0	.58	1.33	25.5	.15
Brown County Annual Recertifications						
Initial Error	189	100.0	2.85	3.79	100.0	.45
Corrected	154	81.5	2.32	2.80	73.9	.33
Uncorrected	35	18.5	.53	.99	6.1	.12
St. Joseph County Annual Recertifications						
Initial Error	191	100.0	1.83	5.11	100.0	.59
Corrected	97	50.8	.93	2.02	39.5	.23
Uncorrected	94	49.2	.90	3.09	60.5	.36

SOURCE: Corrected errors calculated from HAO Monthly Program Reports and uncorrected error estimated from samples of major verification errors. All data are for program years 2 through 4.

$5.11 per annual recertification. In both cases, the average error was about 0.6 percent of the average annual payment of $867.

Whether measuring the case or the payment error rate, the HAO rates were very low compared to other programs. It is difficult to make precise comparisons because of the differences in error definition, but

general comparisons can be made with the AFDC and SSI programs. The HAO estimate of total error before verification corrections is roughly comparable to the net payment error rates by participants discovered by the quality control programs of AFDC and SSI. For the period of April to September 1979, the average net payment error rate for AFDC among the states was 8.4 percent; Griffiths and Callahan (1980) estimate that about half of this total error was caused by participants. Using this estimate, the AFDC participant error rate is about 4.2 percent compared to about 0.5 percent for the HAOs. The national payment error rate for SSI in 1978 was 4.6 percent. About 58 percent of the errors were attributed to participants. Assuming that the average size of an error did not vary between participant and staff errors, the participant error rate for SSI was about 2.7 percent.[10]

Corrections made as a result of verifications conducted by the HAOs have no direct counterpart in the AFDC, SSI, and Food Stamp quality control programs that select much smaller samples, used primarily to assess error rates and content rather than to correct past errors. Thus, even though overall HAO error rates were much lower than for other programs, the net uncorrected error is even lower. In Brown County enrollments, 90 percent of the case errors and 99 percent of the payment errors were corrected. The comparable rates for annual recertifications were 82 and 74 percent, respectively. St. Joseph County, with its lower verification rates, corrected less of the total error. For enrollments, 75 percent of both the case and payment error was corrected. For annual

[10] AFDC and SSI data are adapted from Griffiths and Callahan (1980).

recertifications, 51 percent of the case error and 40 percent of the payment error was corrected.

After verification, the net case error rate had been reduced to less than 1.0 percent for enrollments and annual recertifications for both sites. The net payment error was less than 0.4 percent.

Differences for Client Groups

Within these low error rates, consistent differences remained between client groups. For enrollments and annual recertifications at both sites, the average error per case processed for the elderly is lower than the average error per nonelderly case (this holds for both gross and net error). Table 4.6 summarizes the average size of an error and estimates the average total error per case processed (both gross and net error) for each client group.

While most of the comparisons between sites have been based on net errors because that is what determines the cost effectiveness of the procedure, it should be noted that there is quite a different pattern between the sites for average gross payment error. While Brown County consistently had the lowest average net error, it had consistently higher average gross payment error per case processed. This difference reflects a much higher number of Brown County errors that resulted in underpayments to the clients, which offset much of the total overpayments to clients. For example, the average gross payment error for Brown County enrollments was $9.32, but the average net error was only $2.96. For St. Joseph County enrollments, the averages were much closer--$7.85 for gross error and $5.22 for net error. This difference

Table 4.6

COMPARISON OF ADMINISTRATIVE COSTS OF VERIFICATION WITH THE AVERAGE ERROR DETECTED

Client Group	Average Administrative Cost Per Verification($)	Error Detected Per Case Verified		Estimated Total Error Detected if All Cases Were Verified	
		Average Gross Error ($)	Average Net Error ($)	Average Gross Error ($)	Average Net Error ($)
Brown County Enrollments					
Nonelderly	*a*	23.66	7.96	10.78	3.65
Elderly	*a*	4.27	-.17	3.43	-.14
Total	7.40	17.58	5.55	9.32	2.96
St. Joseph County Enrollments					
Nonelderly	*a*	20.82	11.75	9.61	6.06
Elderly	*a*	5.64	4.68	3.46	3.04
Total	9.13	16.18	9.65	7.85	5.22
Brown County Annual Recertifications					
Nonelderly	*a*	16.98	10.54	10.01	6.64
Elderly	*a*	2.62	.16	1.87	.10
Total	7.26	9.11	4.90	6.42	3.79
St. Joseph County Annual Recertifications					
Nonelderly	*a*	15.64	12.03	8.08	7.13
Elderly	*a*	2.71	2.35	7.02	2.44
Total	4.74	8.19	6.40	5.68	5.11

SOURCE: Calculated from HAO administrative records and samples of cases with major verification errors. Data are from program years 2 through 4.

[a]The data do not enable a distinction in costs by client group.

is most striking for elderly households in Brown County. For all elderly enrollments, the average annual error rate was $3.43; however, the average net error was an underpayment of $.14 per year. Verification results indicate that Brown County participants, particularly the elderly, were more likely to overstate their income than were St. Joseph County residents.

Cost Effectiveness of HAO Verification Procedures

With the small amount of payment error to detect, was the HAO verification procedure cost effective? Throughout this analysis we have measured benefits in terms of net savings to the program in allowance payments. An additional measure that is important for equity purposes is gross error--whether the error resulted in an increase or a decrease in benefit payments. Table 4.6 summarizes the administrative costs of verification and the average payment error (both gross and net error) discovered by verification. In addition, the table identifies the estimated payment error per case if all cases had been verified.

The administrative cost data used for this purpose is the average rate in actual dollars (not controlling for inflation). However, cost data for the earliest part of the period for which verification results are reported are not available because the HAO cost accounting system was not yet in effect.[11] As a result, the administrative costs reported have an upward bias. However, we judge that this bias is not

[11] The data on verification errors are for program years 2 to 4 (July 1975 to June 1978 for Brown County, and January 1976 to December 1978 for St. Joseph County). The data on administrative costs for verifications are only available from April 1976. Therefore, the Brown County cost data exclude average costs from the first nine months of the period, and the St. Joseph County data exclude the first three months of the period covered by the verification error data.

enough to change general conclusions about the cost effectiveness of this procedure.

Using the measure of administrative costs compared to net savings in allowance payments, verifications cost more in Brown County than they saved for both enrollments and annual recertifications. The administrative costs for enrollments averaged $7.40, but the average net error detected was only $5.55. For annual recertifications, the administrative cost per case was $7.26; the program savings were $4.90. However, in St. Joseph County, verifications were cost effective for both enrollments and annual recertifications. Enrollment verifications cost an average of $9.13 each and saved an average of $9.65. Annual recertification verifications cost $4.75 and saved $6.40.

While the costs for Brown County exceeded the savings for all verifications, this is not the case for nonelderly households. In fact, consistently for both sites and for both enrollments and annual recertifications, verifications were cost effective for the nonelderly but not for the elderly. For Brown County, which verified from 70 to 80 percent of the elderly enrollments and annual recertifications, the verifications were particularly not cost effective. For enrollments, the HAO spent $7.40 and gained no net savings; the HAO actually paid out an average of $.17 per year more than if no verifications had been conducted. For annual recertifications there was some net savings from the verifications ($.16 per year), but at a cost of $7.26 per year. For St. Joseph County elderly, the gap between costs and net savings was not so great, but the process was still clearly not cost effective.

Using the measure of total error corrected, regardless of the direction in the change in payments (gross error), verifications were cost effective overall for both sites, but still were not cost effective for the elderly at either site. In terms of overall equity, even the improvement in equity from verifications for the elderly was not as great as the cost of verification.

Table 4.6 also estimates the gross and net payment change per case per year had all cases been verified. If all cases had been verified, only for St. Joseph County annual recertifications was the process likely to have been cost effective. This is in part due to the lower costs of these verifications, but also because these verifications were the least well focused, as measured by the estimated undetected error. (Less than half the payment error was detected by verification.)

These results indicate that the HAOs had considerable opportunities to better focus the verification sampling to cases in which errors were likely to occur. For the elderly, because of difficulty in providing documentation for Social Security income, the sampling criteria based on percent of income and assets documented was not very effective in targeting verification resources. Alternatives might be considered:

- The HAOs might continue to sample a small percentage of cases for the elderly to monitor error rates and causes. To be effective and to improve targeting, the results of these verifications should be entered into an automated system similar to the one developed by the HAOs for monitoring staff error.[12]

[12] We would not recommend discontinuing verifications altogether because doing so might affect client incentives to report correctly if they know that their statements are not likely to be checked. This

- Because it is important to be sure that the Social Security amount reported at enrollment is correct, these verifications might be continued even though they are not cost effective. Knowing that the enrollment amount is correct, the HAOs could discontinue verification of this income source at annual recertification if the amount reported is consistent with known annual adjustments in Social Security and SSI payments.

While verifications for the nonelderly were cost effective for both sites, considerable improvement in targeting is possible. Data from the samples of verification errors do not provide sufficient information to suggest specific changes, but the development of an error information system would allow the HAOs to analyze these errors, and more effective sampling techniques might be identified.

Despite the mixed success of the HAO verification sampling system, we judge that it offers a useful alternative to even more extensive verification systems used by other programs, which also have higher payment error rates. We also judge that the Section 8 program could reduce its verification costs considerably, without sacrificing accuracy, by relying more on documentation and less on third-party verification. HAO results indicate that by emphasizing documentation, Section 8 could further reduce its costs by then sampling cases for verification. For such a system to operate effectively, an information system that allows analysis of verification errors is critical for evaluating the effectiveness of the system and improving selection criteria.

---

would also not allow the HAO to continue monitoring the error rate or to identify other criteria that might result in a cost effective sampling system.

OTHER HAO TECHNIQUES FOR DETECTING PARTICIPANT ERRORS

Besides verification, the HAOs used three techniques to detect participant error. Those techniques were: (1) investigating inconsistencies in data reported at consecutive recertifications, (2) referral of cases for review for possible misreporting and fraud, and (3) independent audits.

Examining Changes Reported at Recertification

In the second year of the program, the HAOs recognized a pattern developing for cases in which the circumstances or changes in circumstances reported by some clients indicated a need for closer review. Such cases included those for which clients reported so little income that meeting basic needs and using the housing allowances as required by the program would be difficult. Other cases involved reports of changes in income or assets from those previously reported. Staff members began probing these circumstances to determine if misreporting had occurred. In July 1976, to maintain a minimum consistent level of such checking, the HAOs adopted criteria for identifying circumstances to be investigated. These criteria were:

- If total household income was less than $2,000 ($1,500 for the the elderly).
- If the client report of benefit income did not reflect the known general increase that had become effective since the last recertification.

- If reported income for AFDC did not agree with the standard rates as adjusted by family composition and income reported by the client for the allowance program.
- If the largest source of household income had been reported lost since the last recertification and there was no replacement source (or unemployment compensation) reported.
- If there had been an increase or decrease of more than $1,000 in assets since the last recertification.

If the client satisfactorily explained his circumstances so misreporting was unlikely, his explanation was recorded. If the explanation offered was weak, the case became subject to special review through the misreporting procedure.

Misreporting Reviews

In 1976, the HAOs developed systematic procedures for reviewing cases in which misreporting was suspected. Cases were referred by staff or as a result of third-party complaints. This procedure involved special reviews of client files, interviews with clients, and requests for additional documentation or consent-to-release information forms. Occasionally, checks were made with other benefit sources from which clients reported no income but for which they appeared eligible. Frequently clients were required to document that an amount equal to their allowance payment had actually been spent on housing expenses for the past six months, as required by the program.

As a result of these reviews, some cases were referred to the HUD Office of the Inspector General for further review because of suspected

fraud. In others, the HAOs determined that an overpayment had occurred due to unintentional misreporting or because the allowance payments had not been used as required. In those cases, the HAOs took steps to collect the overpayment. In most cases, no misreporting was discovered.

Table 4.7 summarizes the results of the misreporting review procedure. During a period of approximately three years, a total of 737 cases were referred for review of misreporting; of that total, 688 were

Table 4.7

SUMMARY OF RESULTS OF THE HAO MISREPORTING REVIEW PROCEDURE

Status of Referrals	Brown County		St. Joseph County			
	Number	Percentage	Number	Percentage	Total	Percentage
Total cases referred for review	199	100	538	100	737	100
Cases pending at end of period	37	19	14	3	51	7
Cases with HAO review completed	162	81	524	97	686	93
Total cases with review completed	162	100	524	100	686	100
No further action taken	113	70	370	71	483	70
Action taken but no referral for fraud[a]	26	16	102	19	128	19
Referral to HUD for fraud	23	14	52	10	75	11
Total cases referred for fraud review	23	100	52	100	75	100
Cases remains under investigation	9	39	8	15	17	23
No prosecution attempted	14	61	42	81	56	75
Successful prosecution	0	0	2	4	2	3

SOURCE: HAO reports for the period ending June 1979 in Brown County and December 1979 in St. Joseph County.

[a]Action taken includes: (1) reductions to current allowance entitlement, (2) determination that an overpayment had occurred, or (3) termination of participation for ineligibility.

completed at the end of year 5. Of those cases, 70 percent were closed by the HAO with no action taken. (Some cases were scheduled for further review at a subsequent recertification if suspicious circumstances continued, such as less income than was required to meet basic household needs.) For the remaining 203 cases, some action was taken either to change allowances, charge an overpayment to clients for misreporting or for not using allowance payments as required, or to terminate participation for ineligible households. Of these, a total of 75 cases were referred to HUD for fraud review (37 percent of the cases for which action was taken and 11 percent of all cases for which the HAO review had been completed). Of the cases referred to HUD, 17 were still under review by HUD or the U.S. Department of Justice (upon referral from HUD); 56 percent were closed by HUD or the Justice Department because of insufficient evidence of fraud, because the client was making restitution, or because the amounts at issue did not justify the costs of prosecution. In these cases the HAOs attempted to collect the overpayments through normal procedures; in addition, the visit to clients by a HUD investigator or FBI agent was sometimes effective in aiding collections. Only two cases (3 percent of all cases referred) were actually prosecuted, both in St. Joseph County.

Independent Audits

The final technique for monitoring participant reporting was that of audits by independent accounting firms. These included the annual audit of the HAO financial records, during which a random sample of client payments were selected; all payments made during the year to

these clients were reviewed for accuracy. This served as an overall measure of error control, including participant errors, but it was primarily a check on the adequacy of HAO procedures and of their administration. Because of this focus, the payment audit results are discussed in the section on staff error.

In 1977, the HAOs contracted with an independent audit firm for a special audit of client reporting and adequacy of HAO procedures in obtaining correct information from clients. For a sample of cases in each site, auditors went to considerable length to determine the accuracy of client reports. They reinterviewed the clients, obtained documentation and consent forms for reported income, and they checked with third-party sources from whom the clients reported no income. The purpose was to check the accuracy of the amounts reported by the clients, the accuracy of the client-provided documentation, and to determine if there were sources of income that had not been reported.[13]

To determine if the documentation was accurate, consent forms were sent to sources for which the client had provided documentation. To check whether clients had failed to report sources of income, the auditors sent consent forms to other benefit programs for which the household might qualify, given the household characteristics. In addition, checks were made with the Social Security Administration to obtain records of the amount and source of earnings reported by employers during recent periods. For St. Joseph County, more detailed income reports were available from the State of Indiana.

---

[13] The HAO and the auditors could check on benefits and income reported by other programs or for tax purposes, but if income was not reported for tax purposes, the HAOs were probably little more successful than the Internal Revenue Service in discovering this unreported income.

The audits detected one case of suspected purposeful misreporting but no cases of forged documentation. There were thirteen cases of unintentional client errors (ten due to reporting incorrect amounts and three due to failure to report a source of income). Only two of these affected payments by more than $10 per month. The gross payment error resulting from these cases was less than $.70 per case in the sample and the net payment error was less than $.05 per case in the sample because two of the errors (including the largest) were cases of clients over-reporting their income. The audits also detected four cases of staff errors that affected payments. All resulted in overpayments, but the average staff error was less than $.15 per case in the sample. (The results of these audits are discussed in more detail in Tebbets, 1979.)

Collecting Overpayments

The final step in the HAO system for controlling participant error was the collection of erroneous payments due to client misreporting. Payments were charged to clients as erroneous for other reasons as well. If clients moved without informing the HAO and continued to receive payment for the vacated housing unit, amounts received after the move and until the new unit passed housing evaluation were in error and had to be repaid to the HAO. Also, the program required that an amount at least equal to the allowance payments must actually have been spent on housing. If the HAO discovered that clients had not met this requirement, all amounts received for which there were no corresponding paid housing expenses were charged as overpayments and had to be repaid.

The HAOs generally tailored the level of collection effort to the amount owed and the likelihood of collection. If the client remained an eligible participant, the HAO deducted overpayments from the monthly allowance entitlement until fully repaid. The HAOs were willing to collect over a longer period (up to six months) when requested by the client. If the clients were no longer active participants, the HAOs sent letters and made phone calls in an attempt to collect. They were willing to accept partial payment with a written agreement specifying the schedule for full repayment. If this was not successful, and the amount owed warranted such action, the Brown County HAO had its local attorney write a letter in an attempt to collect. If this was unsuccessful, the HAO requested its attorney to pursue collection through small claims court. Overall costs for such efforts by the HAO's attorney exceeded the amounts collected, but the HAO considered it important (as a preventive measure) to let clients and the community know that it would attempt to collect amounts owed by clients.

Table 4.8 summarizes HAO collection activities for the full five years of the experiment. Besides overpayments, HAO collection activities included collecting amounts advanced for security deposits. (For a description of HAO program rules regarding security deposits, see Katagiri and Kingsley, 1980, Sec. II.) Of the total amount advanced for security deposits, 83 percent in Brown County and 69 percent in St. Joseph County had been repaid by the end of the period. Most of the remaining amounts to be collected were still current, and most cases were collected monthly as deductions from client allowance payments. However, 1.5 percent of the amount advanced in Brown County and 14.5

Table 4.8

HAO COLLECTIONS AND WRITE-OFFS

Item	Brown County		St. Joseph County	
	Amount ($)	Percent of Total Allowance Payments	Amount ($)	Percent of Total Allowance Payments
Total Allowance Payments	11,891,673	100.0	18,341,174	100.0
Advances for Security Deposit				
Total advanced	115,393	1.0	257,915	1.4
Repaid by recipients	95,388	.8	178,088	1.0
Balance unpaid	20,005	.2	79,827	.4
Written off as uncollectible	1,777	[a]	37,569	.2
Balance to be collected	18,228	.2	42,258	.2
Overpayment Charged to Recipients				
Total overpayments	93,283	.8	284,670	1.6
Repaid by recipients	65,502	.6	219,757	1.2
Balance uncollected	27,781	.2	64,913	.4
Written off as uncollectible	12,472	.1	40,633	.2
Balance to be collected	15,309	.1	24,280	.1

SOURCE: These data are from HAO financial records for the period ending June 1979 in Brown County and December 1979 in St. Joseph County. This represents the cumulative status after five years of program operation.

[a]Less than .05 percent.

percent in St. Joseph County had been written off as uncollectible. The much larger percent in St. Joseph County represents the wider use of security deposits in that community and the greater difficulty for the HAO in collecting unpaid amounts from clients who had left the program. The St. Joseph County HAO did not use the services of an attorney for collections, nor were cases taken to small claims court as in Brown County. Neither site used the services of professional collection agen-

cies because of concern for controlling the collection effort. Collections from households with such limited means are of course difficult; the HAOs tried to pursue collections within reason and with appreciation for the probability of collection.

Of total allowance payments made, Brown County determined that 0.8 percent had been made in error due to client misreporting, failure to report changes as required, or failure to use allowance payments as required by the program. The comparable rate for St. Joseph County was 1.6 percent of total payments.[14] Both sites had collected about three-fourths of the overpayment amount at the end of the period. Additional amounts were still being collected through deductions from allowance payments, or collection from former participants was attempted. However, about 14 percent of the overpayments had been written off as uncollectible.

We have no comparable data from other programs, but we judge that the HAO collection efforts were particularly effective compared to other housing assistance programs in which overpayments must be collected through direct payments by the client to the housing agency rather than by deductions from future benefits.

We judge that a major factor in the low rate of overpayment due to participant misreporting, especially given HAO efforts to identify these errors, was the design of the HAO reporting requirements. The HAOs attempted to limit to a minimum client reporting between scheduled recertifications. (The clients had to report moves and certain house-

[14] These overpayments were discovered through verification, at later recertifications, or through the misreporting review procedures.

hold composition changes, but they did not have to report income, asset, or most household composition changes except when requested to do so by the HAO.) The ability of clients to meet complicated reporting requirements was mixed; some clients had some difficulty with even the minimum amount required by the HAOs. We judge that if clients had been required to report income changes as they occurred, the rate of overpayment would have been much higher; and processing costs for overpayment, collection costs, and collection losses would have been higher. Also, the burden on clients of repaying overpayments would have been greater. This is especially true since almost all of the client misreporting was unintentional.

CONTROLLING STAFF ERRORS

The most common types of staff error in benefit programs are miscalculation, misapplication of program standards and procedures, clerical errors, and late processing. The techniques programs and administering agencies have used to prevent and detect such errors include:

- Improved training for staff.
- Clarification and simplification of program rules and procedures.
- Improved incentives for administrators and individual staff members.
- Quality control procedures with feedback to staff members.
- Adequate internal controls and review procedures, including the separation of eligibility determination, payment, and quality control functions to discourage intentional errors.

Preventing Intentional Error

Because of the concerns of providing accurate data for research and the adverse effects of local perceptions of poor management of the program, the HAOs used prevention and detection procedures beyond those normally used in benefit programs. For preventing intentional error, the HAOs designed a careful separation of functions in the benefit payment process and a comprehensive review system to make commission difficult and detection highly probable. An additional incentive was the clearly stated consequences for staff members if such errors were detected. In audits of HAO review procedures, no intentional staff errors were discovered. Since none were detected, it is not possible to evaluate the effectiveness of individual procedures, but we judge that the careful recruitment of staff was perhaps the most important factor in fraud prevention. But even with the best recruitment, a system of internal separation of functions and adequate review procedures is prudent for any program because it is impossible to predict staff behavior when an opportunity exists and where personal circumstances (e.g., financial pressures) might provide an incentive to make intentional errors.

The principal separation of functions for the HAO was in the payments process for which separate staff members determined eligibility, reviewed the eligibility determination, evaluated client housing, authorized payments, entered records into the computer system, reviewed entries, processed payments, and reviewed payments. Considerable collusion would have been required to make fraudulent payments.

Preventing Unintentional Error

It is difficult to assess the importance of particular HAO procedures for preventing unintentional errors. Without planned variations in procedures, we are unable to measure the preventive effects of those procedures. Among the factors that we judge made a contribution to the relatively low staff error rate were: (1) the quality of the staff and their training; (2) the very specific elicitation form that required an indication of even negative responses from clients about income and assets to avoid inadvertantly forgetting to ask key questions; (3) detailed guidelines provided for staff on program rules and procedures; and (4) the effects of knowing that entries made were subject to review by other staff members. An additional important contribution was the emphasis placed on error control by HAO managers and supervisors. The HAO error monitoring system provided data to supervisors on error rates and types for each employee that processed enrollments and recertifications. This was used to identify error patterns for individuals or the full group. The results were also used in employee performance assessments.

Error prevention techniques were generally effective as measured by the results of the error monitoring systems of the HAOs. Based on samples selected for separate review by the staff as a part of the manual data review and post-processing quality control, we estimate that there were payment errors in from 13 to 15 percent of the cases before implementation of error detection procedures. However, only 7 to 11 percent had errors greater than $1 per month. The average net annual error per enrollment processed was about $9.62 for Brown County and about $5.53

for St. Joseph County. For annual recertifications, Brown County had an average net underpayment of $1.30 per year and St. Joseph County averaged a net overpayment of $2.60. These errors were then substantially reduced by the error detection techniques.

These initial payment error rates for staff are higher than those for client error. This reflects two key aspects of the HAO system:

- The HAO eligibility determination system was more complicated than that of other programs and as such was more error-prone. This was due to the added data required for the research, the generally more complex incomes and assets of HAO clients, and the broader range of types of clients (especially with homeowner participation) than are eligible for other programs.
- With its reliance on documentation, the HAO shifted the possibility of error from participant to staff member. For most other programs, clients fill out the income and asset information as they best remember it. If an error is detected, it is client error. With documentation, the chances of client error are greatly reduced. However, chances of staff error are increased because they must now use the documentation correctly. The HAO system was designed to reduce opportunities for participant error (e.g., documentation, less unscheduled reporting of changes, HAO staff filling out the interview form while asking the full range of questions and providing needed clarification).

Error Detection Techniques

The HAOs used four techniques for detecting staff errors: (1) a separate review of all enrollment and recertification transactions prior to final entry into the data processing system; (2) computer edits of all transactions to check internal consistency, completeness, and calculations; (3) a post-processing quality-control sampling procedure that selected cases for thorough reviews; and (4) independent audits.

Analysis of HAO staff error prevention and detection is based on samples of manual data reviews selected at random by the HAOs and on random samples of cases selected by the HAOs for post-processing quality control reviews entered in the HAOs' automated error monitoring system. The automated error monitoring system was installed in the second year of the program to assist HAO managers and supervisors to monitor errors at both the agency and individual levels. Results were used to evaluate the need for policy clarification or for individual or group training. They were also used by supervisors in assessing individual performance.

Table 4.9 describes the samples used for this analysis. The sample sizes range from 3.5 percent of St. Joseph County's semiannual recertifications selected for quality control reviews to 14 percent of Brown County manual data reviews of enrollments.

Computer Edits

Each enrollment and recertification transaction was subjected to a computer edit and a complete manual review of all entries. The manual data review usually preceded the computer edit, but Brown County performed a preliminary edit of enrollment before that of the manual data

Table 4.9

SUMMARY OF DATA SOURCES FOR STAFF ERRORS

	Brown County			St. Joseph County		
	Period	Cases in Sample	Cases From which Sample Selected	Period	Cases in Sample	Cases From which Sample Selected
Manual Data Reviews						
Enrollments	3/77-6/79	467	3,299	3/77-10/79	775	9 353
Annual recertifications	7/77-6/79	689	5,679	3/77-10/79	591	11,795
Quality Control Reviews						
Enrollments	3/77-6/79	291	3,299	3/77-12/79	545	10,161
Annual recertifications	1/78-6/79	413	4,315	1/78-12/79	332	9,357
Semiannual recertifications	1/78-6/79	443	5,488	1/78-12/79	409	11,803
Special recertifications	1/78-6/79	55	792	1/78-12/79	95	1,400

SOURCE: Calculated by HASE staff from the HAOs' automated error monitoring system.
NOTE: The St. Joseph County manual data review data are for samples of special reviews conducted prior to the normal data review process. We judge that they record payment errors accurately but undercount errors that do not effect payments.

review. The Brown County sequence had the apparent advantage of using the computer to detect errors and then concentrating more expensive manual resources on items the computer could not check. However, Brown County performed manual data reviews first for all recertification transactions; St. Joseph County HAO performed the manual data reviews first for all transactions. There appears to be no clear choice between the two options, and we judge that the sequence did not significantly affect either accuracy or costs. However, the use of computer edits does hold some promise for other programs not using separate manual review procedures. Well-designed edit systems can be important error control resources in the future as computer usage by local agencies administering benefit programs becomes more widespread.

Data on the results of the computer edits were not routinely maintained by the HAOs. Tebbets (1979) collected data on samples of computer edits at each site over a two-month period in 1977. He found that St. Joseph County edits detected errors in 15 percent of the cases and Brown County, which performed the edit before the manual review, found errors in 25 percent of the cases. The most frequent errors involved missing or invalid coding; very few affected allowance payments. In a sample of 137 cases in Brown County, errors affecting payments were detected in four cases. Only two errors affecting payments were detected in a sample of 685 computer edits in St. Joseph County.

Manual Data Review

While some agencies may have procedures for internal checks of eligibility transactions before they are processed (e.g., for new employees), we know of none that uses a procedure similar to the HAOs of thoroughly checking every transaction. Although the HAO procedure was not cost effective in its savings in allowance payments, it was very important in ensuring the integrity of the research data. The HAOs found it easier to focus staff attention on errors that affected client payments than on other data elements (e.g., coding) important for the research. In addition, the HAOs had a much larger number of such coding entries (to meet the needs of the research) than is typical of nonexperimental programs.

Table 4.10 summarizes the results from samples of manual data reviews for Brown County enrollments and annual recertifications. It

Table 4.10

SUMMARY OF RESULTS FROM HAO MANUAL DATA REVIEW PROCEDURES

Error Status	Brown County				St. Joseph County			
	Number in Sample	Percent	Average Annual Payment Error ($)		Number in Sample	Percent	Average Annual Payment Error ($)	
			Gross	Net			Gross	Net
Enrollments								
No errors	228	48.8	0	0	428	55.2	0	0
Nonpayment errors	187	40.0	0	0	291	37.5	0	0
Payment errors of less than $1 per month	25	5.4	2.17	.03	12	1.5	6.23	4.09
Payment errors of $1 or more per month	27	5.8	169.70	79.34	44	5.7	228.07	41.22
Total	467	100.0	9.93	4.59	775	99.9[a]	13.05	2.40
Annual Recertifications								
No errors	205	29.8	0	0	333	56.3	0	0
Nonpayment errors	415	60.2	0	0	206	34.9	0	0
Payment errors of less than $1 per month	39	5.7	3.87	-1.15	20	3.4	2.35	1.52
Payment errors of $1 or more per month	30	4.4	83.41	4.92	32	5.4	89.09	10.47
Total	689	100.1[a]	3.85	.15	591	100.0	4.90	.62

SOURCE: Calculated from samples selected by HAO staff and entered into the HAO automated error monitoring system. See Table 4.9 for sample details.

[a]Total does not equal 100 due to rounding.

also summarizes data for St. Joseph County, but these data are for special quality control reviews conducted prior to the manual data reviews that were conducted for all cases.[15]

[15] These reviews are redundant with manual data review, but were installed so that senior staff in the HAO interviewer unit could conduct their own quality control on samples of cases for each of the unit's members. Reporting the results of manual data review for a sample of cases for each employee would have accomplished the same function at less total cost.

For these samples, the case error rates (percent of cases processed in error) ranged from 7.2 percent of St. Joseph County enrollments to 11.2 percent of Brown County enrollments. However, a number of the errors detected affected allowance payments by less than $1 per month. The highest error rate for errors of $1 or more per month was 5.8 percent for Brown County enrollments.

As with verifications, the payment error rate was much lower. The largest net effect on annual allowances was $4.59 saved per year for each Brown County enrollment. This savings is equal to less than 0.5 percent of the average annual payment for the period. The comparable rate for St. Joseph County enrollments was 0.3 percent, and for both sites the rate of net payment error detected for annual recertifications was less than 0.1 percent.

Cost Effectiveness of Manual Data Review

With verifications, even though the net payment error detected was very low, the procedure was still generally cost effective (at least for nonelderly households). For manual data review, with its 100 percent sampling, the process was clearly not cost effective when compared to the allowance payment savings it generated. The average administrative cost of performing a manual data review for Brown County was $5.81 compared to a net savings from manual data review of $4.59--the case closest to being cost effective. (See Table 4.11.) Least cost effective were those cases for Brown County annual recertifications in which the HAO spent an average of $6.34 to save $.15.

Table 4.11

COMPARISON OF ADMINISTRATIVE COSTS AND PAYMENT ERRORS DETECTED BY MANUAL DATA REVIEW

Transaction Type	Average Administrative Cost ($)	Average Annual Payment Error Detected ($)	
		Gross	Net
Brown County			
Enrollment	5.81	9.93	4.59
Annual Recertification	6.34	3.85	.15
St. Joseph County			
Enrollment	8.39	13.05	2.40
Annual Recertification	6.67	4.90	.62

SOURCE: Administrative costs are actual costs, not adjusted for inflation, for the period July 1977 to June 1979 for both sites. They include both direct and indirect costs. Payment error data are calculated from samples of manual data reviews in Brown County and from special pre-manual data reviews in St. Joseph County.

Again, there are other measures of cost effectiveness. For enrollments, the HAOs made gross corrections to allowance payments that exceeded administrative costs in both sites. Manual data reviews for annual recertifications were not cost effective even by this measure.

Despite the fact that HAO manual data review procedures were not cost effective in terms of erroneous allowance payments saved, we judge that they were a critical part of the HAOs' success in operating the

programs consistently and with few errors between the two sites. Those procedures accomplished the following:

- They served to focus management and staff attention on the importance of error control from the beginning of the program. Error control was not conducted in response to excessive error; it was a part of normal processing. This was important for the research, but it was also important in establishing error control as a criteria for evaluating individual and organizational performance.
- During the early period of the program when rules were still being clarified as unanticipated client circumstances were encountered, the manual data review process served as the principal mechanism for bringing such questions to the surface and ensuring their resolution. If a reviewer did not agree with the interpretation of the interviewer, a resolution was required. Sometimes it was a matter of correcting one party or another; other times this generated new policy clarifications to ensure consistent treatment of similar circumstances in the future.
- Another advantage of the manual data review process (which we judge makes it more cost effective than the allowance savings would indicate) is that it caught errors before payments were affected. Other detection procedures used by the HAOs (e.g., consistency checks at subsequent recertifications, quality control reviews) detected the error much later with a resulting erroneous payment by either the HAO or the client. If

committed by the HAO staff, this error was counted a loss; if committed by the client, the HAO attempted to collect the overpayment. We do not judge that savings in this area were offset by the costs of manual data review, but we do judge that it is important to examine costs to both the agency and clients of later detection of the error in evaluating system effectiveness.

The HAOs' emphasis on error prevention and early detection, while perhaps not always cost effective in terms of erroneous allowances saved, did provide a more satisfactory environment for participants and staff. Unintentional errors were difficult for both parties. Staff members were concerned about program funds lost and about how that reflected on agency performance. When clients made an error, staff members had to inform the clients and attempt to collect overpayments from clients' limited means. Seeing the difficulty repayment presented for clients, the staff member might wonder if better questioning, probing, or explanations at the initial interview would have prevented the error. We judge that the HAO system made for a more satisfactory environment for both clients and staff and for a better relationship between them.

Quality Control Reviews

As a check on the accuracy of staff processing in the HAO system, the HAOs selected samples of cases each month according to transaction type for separate review by a senior staff member. These reviews involved checking the work of both the person completing the form and

the person performing the manual review. (Samples are described on Table 4.9.)

Table 4.12 summarizes the results of quality control reviews for enrollments and each of the recertification types. Overall error rates were surprisingly consistent between the sites: 38 percent for enrollments, 24 percent for annual recertifications, 14 percent for semiannual recertifications, and 27 percent for special recertifications. A much smaller percent involved payment error, ranging from 1.7 percent of Brown County enrollments to 9.1 percent of Brown County special recertifications, and many of those were errors of less than $1 per month in allowance payments.

For enrollments and annual recertifications, the average gross error detected by quality control reviews ranged from $1.87 for Brown County annual recertifications to $5.51 for St. Joseph County enrollments. The average net errors for these two processes ranged from an underpayment of $1.45 for Brown County annual recertifications to an overpayment of $5.03 for Brown County enrollments.

As with verification errors, we can use these quality control results to make comparisons with error rates for other programs. The largest HAO case of average error ($5.03) represents a residual staff-caused payment error rate of 0.5 percent of the average annual payment during the sample-selection period. The corresponding staff payment error rate for AFDC for 1979 was 4.2 percent and for SSI for 1978, the staff payment error rate was 1.9 percent.[16]

[16] These estimates were calculated from data provided in Griffiths and Callahan (1980).

Table 4.12

HAO QUALITY CONTROL SAMPLING RESULTS

Error Status	Brown County				St. Joseph County			
	Number in Sample	Percent	Average Annual Payment Error ($)		Number in Sample	Percent	Average Annual Payment Error ($)	
			Gross	Net			Gross	Net
Enrollments								
No errors	177	60.8	0	0	293	53.8	0	0
Nonpayment errors	109	37.5	0	0	212	38.9	0	0
Payment errors of less than $1 per month	2	.7	1.08	1.08	16	2.9	2.16	1.77
Payment errors of $1 or more per month	3	1.0	488.12	487.72	24	4.4	123.71	69.97
Total	291	100.0	5.04	5.03	545	100.0	5.51	3.13
Annual Recertifications								
No errors	284	68.8	0	0	234	70.5	0	0
Nonpayment errors	109	26.4	0	0	75	22.6	0	0
Payment errors of less than $1 per month	9	2.2	2.21	-.24	13	3.9	3.51	-1.02
Payment errors of $1 or more per month	11	2.7	68.54	-54.36	10	3.0	67.21	67.21
Total	413	100.1[a]	1.87	-1.45	332	100.0	2.16	1.98
Semiannual Recertifications								
No errors	363	81.9	0	0	331	80.9	0	0
Nonpayment errors	64	14.4	0	0	56	13.7	0	0
Payment errors of less than $1 per month	4	.9	5.49	-.51	5	1.2	3.00	1.44
Payment errors of $1 or more per month	12	2.7	244.06	-227.74	17	4.2	75.25	38.30
Total	443	99.9[a]	6.66	-6.17	409	100.0	3.16	1.61
Special Recertifications								
No errors	35	63.6	0	0	66	69.5	0	0
Nonpayment errors	15	27.3	0	0	25	26.3	0	0
Payment errors of less than $1 per month	0	0	0	0	1	1.1	.96	.96
Payment errors of $1 or more per month	5	9.1	130.61	82.61	3	3.2	57.00	7.08
Total	55	100.0	11.81	7.51	95	100.1[a]	1.81	.23

SOURCE: Calculated by HASE staff from quality control samples in the HAO error monitoring system. The samples are described in Table 4.9.

[a]Total does not equal 100 percent due to rounding.

Checking Consistency Between Sequential Recertifications

The technique of checking the data from one recertification with data provided for the previous one also served to prevent and detect staff errors. For example, if documentation was incorrectly used to project income at one recertification, this was sometimes discovered at a subsequent recertification. This was also true of asset information, often more difficult because clients understood their assets less well than their income and because the documentation was often more complicated.

Erroneous Payments Due to Staff Error

At the end of the full five-year period of the experiment, the HAOs had identified and accounted for erroneous payments resulting from staff error. For each site the total amount represented about 0.1 percent of total allowance payments during the period, a total error less than the annualized amount reported by error detection mechanisms because those errors were most often discovered before they affected payments for a full year. The manual data review corrections did not result in payment errors because they were corrected before payments were affected. Remaining errors were often caught within a few weeks of their occurrence, but were most often discovered at a subsequent recertification. Income errors were often discovered six months later at the next recertification. Asset errors were usually discovered at annual recertifications because assets were reexamined only annually.

Independent Audits

As a continuing check on the adequacy of the HAO eligibility certification system and the accuracy of its administration, the HAOs contracted for annual audits by independent accounting firms. One portion of the audit, the payments audit, involved selecting a sample of payments made during the period and then examining the accuracy of all payments to those households. Checks involved reviews of the eligibility and payment determinations and all other determinations regarding these clients. The audits also attempted to verify the existence of these clients and that they resided at the dwellings evaluated by the HAOs and to which payments were being made. A sample of clients was also visited at home and questioned to determine that the HAO had evaluated their housing and that required repairs had been made as indicated by HAO records; that the client had received and endorsed HAO checks that had been cashed; and that income, assets, and household composition recorded in the HAO files were correct.

For each audit the auditors predetermined a level of accuracy for which they would test (e.g., that at least 95 percent of payments are correct) and selected a sample accordingly. If the results of the audit did not meet this initial test, additional sampling would be done to examine the error rate and causes more closely. The HAOs always met the initial test. Table 4.13 summarizes the results of the audits during the experimental period. Findings are expressed in terms of statistical confidence levels. Using the 1977 St. Joseph County HAO results as an example, the audit statement says that the auditors are 95 percent certain that the HAO case error rate does not exceed 4.4 percent.

Table 4.13

SUMMARY OF INDEPENDENT AUDITS OF HAO PAYMENT SYSTEM

Period Audited	Audit Firm	Statistical Test Applied (all at 95% confidence level)*	Sample Size	Number of Errors in Sample	Statement of Findings (all at 95% confidence (level)*
		Brown County			
June-December 1974	Arthur Young & Co.	At least 95% are correct	137	0	At least 97% were correct
January-December 1975	Arthur Young & Co.	At least 93% are correct	140	4	At least 93% were correct
January-December 1976	Arthur Young & Co.	At least 93% are correct	129	3	At least 94% were correct
January-December 1977	Arthur Young & Co.	At least 95% are correct	130	0	At least 96.4% were correct
January 1978-August 1979	Deloitte, Haskins & Sells	At least 99% are correct	(a)	0	At least 99% were correct
		St. Joseph County			
1975	Arthur Young & Co.	(a)	140	3	(a)
1976	Arthur Young & Co.	At least 93% are correct	140	1	At least 93% were correct
1977	Arthur Young & Co.	At least 95% are correct	140	1	At least 95.6% were correct
1978	Ernst & Ernst	At least 95% are correct	(a)	(a)	(b)
1979	Ernst & Whinney	At least 95% are correct	(a)	(a)	(b)

SOURCE: Audit reports issued by respective independent audit agencies.

NOTE: Using the 1977 St. Joseph County audit as an example, the statistical test applied and the findings are stated: at the 95 percent level of confidence at least 95.6 percent of the payments are correct.

[a]Not specified.

[b]Not specified but audit reports indicate "...we noted no conditions (in the HAO payment system) which we considered to be material weaknesses...."

These audits served to verify the overall accuracy of the HAO administration of the means test; they also allowed the HAOs to receive advice on a range of internal control issues. They were important both for improvements that were made and for the confidence of HAO trustees and community leaders in the quality of the allowance program's administration.

SUMMARY OF HAO ERROR CONTROL PERFORMANCE

By any standard generally used to assess error performance in benefit programs, the HAOs accomplished a very low error rate--both as a percent of cases and of payments. Table 4.14 combines the client misreporting and staff error data to estimate the total case and payment error rates, both before and after corrections resulting from HAO error-monitoring procedures. It is apparent that HAO correction procedures were successful in detecting and correcting error, but the HAO's main success was in the prevention of errors. Without error correction techniques, client errors were available for the HAOs to detect in only 2 to 3 percent of the cases. The available staff error was higher (7 to 10 percent).[17]

When errors are measured by the payment error rate (percent of payment dollars made in error), HAO error prevention is even more impressive. The largest initial payment error rate (when both staff and client error are combined) is for Brown County enrollments, in which 1.4 percent of payment amounts would have been in error with no additional

[17] For this analysis, the case error rate is limited to cases with errors of $1 or more per month.

Table 4.14

ACCURACY OF HAO MEANS TEST DETERMINATIONS

	Brown County		St. Joseph County	
	Intake	Annual	Intake	Annual
Data Sources				
Dates of Sample				
Client misreporting	7/75-6/78	7/75-6/78	4/76-03/79	4/76-03/79
Staff error corrected	3/77-6/79	3/77-6/79	4/77-12/79	4/77-12/79
Staff error uncorr.	3/77-6/79	3/77-6/79	4/77-12/79	4/77-12/79
Sample Size				
Client misreporting	5,358	6,637	11,490	10.403
Staff error corrected	467	689	775	591
Staff error uncorr.	291	413	545	332
Percent of Cases with Payment Errors				
Client Misreporting				
Initial error	3.1	2.8	2.3	1.8
Corrected	2.9	2.3	1.7	.9
Uncorrected	.2	.5	.6	.9
Staff Error				
Initial error	6.8	7.1	10.1	8.4
Corrected	5.8	4.4	5.7	5.4
Uncorrected	1.0	2.7	4.4	3.0
Average Net Payment Error Per Recipient Year ($)				
Client Misreporting				
Initial error	2.96	3.79	5.22	4.35
Corrected	2.93	2.80	3.89	1.99
Uncorrected	.03	.99	1.33	2.36
Staff Error				
Initial error	9.62	-1.30	5.53	2.60
Corrected	4.59	.15	2.40	.62
Uncorrected	5.03	-1.45	3.13	1.98
Total Error				
Initial error	12.58	2.49	10.75	6.95
Corrected	7.52	2.95	6.29	2.61
Uncorrected	5.06	-.46	4.46	4.34
Percent of Total Payments in Error				
Client Misreporting				
Initial error	.35	.45	.60	.59
Corrected	.34	.33	.45	.23
Uncorrected	.01	.12	.15	.36
Staff Error				
Initial error	1.04	-.14	.61	.29
Corrected	.50	.02	.26	.07
Uncorrected	.54	-.16	.35	.22
Total Error				
Initial error	1.39	.31	1.21	.88
Corrected	.84	.35	.71	.30
Uncorrected	.55	-.04	.50	.58

error control. The net payment error for AFDC in 1979 was 9.4 percent; for 1978, the SSI payment error rate was 4.6 percent (Griffiths and Callahan, 1980). However, as a result of HAO error monitoring procedures, the actual net payment error rate for the HAOs was less than 0.6 percent in each case. Even this total was reduced by HAO collection efforts, which recovered most erroneous payments caused by client misreporting.

V. CONCLUSIONS

How well did the HASE eligibility certification system work? What would we do differently for the continuing allowance programs? What are the lessons from HASE for other housing assistance and benefit programs? In this section we provide at least partial answers to those questions. We begin by evaluating the overall system in terms of the criteria we established for evaluating eligibility certification systems in benefit programs. We then review each element of the system and examine alternatives. Finally, we make recommendations for the the current allowance programs and for other benefit programs.

OVERALL APPRAISAL OF THE HASE SYSTEM

We began with three criteria for evaluating eligibility certification systems: accuracy of the system and of its administration, its burden for participants, and administrative efficiency.

Accuracy of the system. We cannot measure the accuracy of the HASE definitions and elicitation procedures in estimating income and assets because that would require data on the actual means for periods of the income estimates. We can identify ways in which the system could be made more accurate and we can see that less careful definitions and income projection rules could have significantly altered benefit payments. Overall, the HAO system worked well. We judge that it achieved a reasonable balance between the accuracy of its estimates and the cost for clients and the HAO's administration.

We judge that for all benefit programs the definitions of income, assets, and household composition deserve more attention. Research to date has tended to concentrate not on accurate rules but on their accurate administration.

The HAO system of regular recertifications every six months (more frequently for certain hardship cases or cases likely to experience large increases in income) ensured better accuracy than less frequent reviews. However, more frequent reviews would have resulted in more accurate allowance payments. Quarterly reviews for nonelderly households probably would have been cost effective; however, even semiannual reviews for elderly households would probably not be cost effective unless they were limited to households with earned income or nonelderly household members.

Accuracy of administration. The error rates for clients and staff were low compared to those of other benefit programs. In part this is due to the program's unusually extensive error-monitoring activities, but it was due more to the few errors in the elicitation process. Based on data from the error-monitoring systems, we estimate that errors affected payments in about 7 to 10 percent of the enrollment and annual recertifications, due either to staff or client error in the elicitation but before application of the error detection and correction techniques. HAO error detection techniques were so successful that errors remained uncorrected in from 1 to 5 percent of the cases. These undetected errors had a small net effect on actual payments. We estimate that the net uncorrected payment error was less than 0.6 percent of total allowance payments made.

Burden for clients. It is difficult to measure client burden, but some indicators are available. Participation rates were relatively high compared to those of other benefit programs in the two communities. Also, the extensive surveys of tenants and homeowners showed that very few program participants criticized the HAO administrative procedures or their treatment as participants. And almost none gave these as reasons for not participating or for terminating their participation. In fact, recipients and former recipients rated the program and its administrators much higher than they did other benefit programs in the community.

One area in which the program procedures might have been considered burdensome was the requirement for documentation, verification, and the more frequent recertification of eligibility than for other programs. In fact, a sizable number of clients thought that the program should do even more checking, which may reflect a desire to maintain the integrity of the program and avoid a negative public image of the program with which they are affiliated.

Cost efficiency. We have examined costs only to compare the costs of processing with the outcomes of particular aspects of the program. Companion studies (Kingsley and Schlegel, 1982, and Kingsley, Kirby and Rizor, 1982) examine administrative costs and their determinants in greater detail. Those studies compare average costs of comparable functions for the HASE housing allowance programs with the AAE housing allowance programs, the Section 8 housing assistance program, and the AFDC program. Table 5.1 summarizes these comparisons.

Comparisons between programs must be made with care, but this one clearly indicates that the HAOs' operating costs for the allowance pro-

Table 5.1

INTERPROGRAM COMPARISON OF ADMINISTRATIVE COSTS

	Income Transfer	Housing Earmarking	Total ($)
Supply Experiment			
Brown County	113	50	163
St. Joseph County	103	60	163
Average	108	55	163
Administrative Agency Experiment			
High	202	275	403
Low	92	61	194
Median	133	138	235
Section 8 Existing Housing			
Recipients			
0-49	(a)	(a)	216
50-99	(a)	(a)	191
100-299	(a)	(a)	170
300-499	(a)	(a)	214
500-999	(a)	(a)	191
1000+	(a)	(a)	296
Average	(a)	(a)	190
Welfare (AFDC Program)			
New York (highest cost state)	582	--	582
Mississippi (lowest cost state)	77	--	77
National average	295	--	295

SOURCE: Kingsley, Kirby, and Rizor, 1982 (Table 4.4, p. 38).
NOTE: The cost per recipient year is in 1976 dollars.
[a]Not available.

gram compared quite favorably with those of other benefit programs. To some extent the HAOs were able to use less complicated procedures than those required in other housing assistance programs, but they also performed more than twice the number of eligibility certifications and substantially more error monitoring.

The overall system, therefore, was cost efficient as compared to other programs. The goals of the program were accomplished: applicants were enrolled in a timely and accurate manner; error-control activities were effective in preventing or correcting all but a small amount of error; recertifications were conducted accurately and on time; and payments were made in the correct amounts and on time. However, some procedures were not cost effective, by the final years of the program; clearly, the system could have been made more cost efficient.

REVIEW OF THE SYSTEM ELEMENTS

What follows is a summary of the key analytical findings for the four elements of the HASE eligibility certification system.

Eligibility definitions. Because we had no data on actual past income, we cannot determine the accuracy of HASE eligibility definitions. We do judge that these definitions have a more significant effect on program and administrative costs than is generally recognized. Much of the current focus is on administrative costs, but the program definitions themselves have perhaps the highest potential payoff in reducing program costs.[1] If key program definitions were carefully examined for their effect on benefits and administrative costs, significant savings may be possible in several benefit programs. We recognize that many of these rules and definitions are part of the legislation and as such are beyond the control of executive agencies and local adminis-

[1] An illustration of the relationship between savings in program costs and savings in administrative costs is provided by Hershey (1979) who estimates that a 1 percent decrease in AFDC grants would offset an increase of 11.5 percent in administrative costs.

trators to modify, but if their effects on costs and participation were better understood, administrators could more accurately inform legislators of those effects and propose alternative rules and definitions.

We can identify rule changes that would either improve or reduce the accuracy of the set of eligibility definitions for HASE. A system using retrospective accounting would be more accurate because it would use only actual household means for a past period to determine benefits. However, it would also increase administrative costs, since more frequent eligibility reviews would be required for benefit levels to reflect current client needs. A system that used projections and reconciled them with actual household income measured for the period would also be more accurate, but this improved accuracy may not be worth the added costs of collecting the data on actual past income and of processing the adjustments. (The system is also likely to be more of a burden for the clients.) However, testing these options would be required to make accurate comparisons.

We can also identify alternatives that could reduce the accuracy of the current HASE system. For example, the HAOs could have relied entirely on current income to project future income. This would have required less documentation, but it also would not have accurately reflected seasonal income, fluxuations in total work hours, or seasonal variation in current income sources. The HASE system of examining each source received by the household during the past year and then determining which should be projected and into what category each fits for determining the documentation and projection method required was an effective method of estimating income.

Elicitation procedures. The two most important elements of the HAOs' success in preventing errors were the face-to-face interview and the emphasis on hard-copy documentation provided by the client in the interview. Just doing a face-to-face interview is not sufficient; the key to the HAOs' success was the quality of the staff and their training, the elicitation form, and the detailed guidelines they followed.

The documentation reduced client reporting error as did detailed probing for inconsistencies and the explanations of terms. The requirement for documentation and the detailed questioning also made it harder for clients to conveniently "forget" to report certain items. Zais (1981) has suggested that there may be a trade-off between detailed interviews and third-party verification. This may be true for the accuracy of the sources reported by the clients, but the interviews were more likely to elicit a complete list of income sources and assets; that is, verification is effective in ensuring the accuracy of reported sources, but it seldom reveals sources the clients failed to report.

The mail-back questionnaires were not as effective in getting complete and accurate information, but they were much less costly than interviews. The HAO system worked reasonably well, mixing the two types of elicitation and limiting the questionnaires to household composition and income questions. The questionnaires would probably not have been successful, however, in obtaining information about changes in client equity in assets.

It is key to begin with a complete interview, since that first contact establishes client expectations about what is required of them and what they can expect from the program and the agency. The agency also

can ensure that the clients understand their obligations. After that, some mix of face-to-face interviews and questionnaires is certainly workable. Given the size of income changes observed by the HAOs, the use of questionnaires to monitor income changes (at least for nonelderly households) is likely to be cost effective.

Frequency of recertification. For HASE it was clearly cost effective to perform semiannual eligibility reviews; however, there was a significant difference between elderly and nonelderly client reviews. Semiannual reviews were not cost effective for elderly clients in Brown County, but they were in St. Joseph County. However, some changes reported at semiannual recertifications would have had to be reported as they occurred. If elderly clients with earned income or elderly households with nonelderly household members are treated as nonelderly households, semiannual recertifications for the remaining elderly households would not be cost effective at either site. However, for nonelderly households, the net savings in program costs as a result of the HAOs' semiannual system indicates that the average change is large enough that reviews more frequent than semiannually would be cost effective.

How cost effective the procedure is depends in part on the form of the recertification. Annual interviews for the elderly were not cost effective; the average administrative cost for an interview was greater than the average savings in allowance payments (resulting from the recertification) over the next six months. For nonelderly clients this was not the case. A more selective system that might better reflect the differences in client circumstances would be annual reviews for elderly households (except those with earned income or nonelderly household

members) with alternating interviews and questionnaires; for elderly households with earned income and all nonelderly households, an effective alternative might be quarterly questionnaires with an annual interview.

The HAO system of special reviews was not cost effective because about 60 percent were client requests resulting in increased payments, and only 40 percent were initiated by the HAOs and actually reduced payments. The client-requested recertifications were for hardships due to large losses in income; the HAO-initiated recertifications were for cases meeting carefully specified criteria for cases likely to experience large increases in income. With a six-month review cycle, we judge that these hardship reviews were important in maintaining program equity and in meeting the needs of clients suffering large income changes. However, this situation should not be all one-sided; there should be some system for reflecting large income increases as well.

Griffiths and Callahan (1980) suggest that clients in housing assistance programs be required to report income changes of a specified size as they occur. We concur with the assumption here that to maintain credibility, local agencies must reflect some of the most obvious and largest changes more frequently than that of an annual review cycle, but we question the overall cost effectiveness of a system that requires clients to initiate reports of such changes. This introduces greater irregularity into agency workloads and increases the likelihood of client misreporting. We agree with the principle, but suggest that establishing criteria for the local agency to initiate special reviews can be more cost effective overall. Testing of criteria other than

those used by the HAOs may result in a more effective system for targeting HAO-initiated special recertifications.

Error control. Error control is the one area of the HASE procedures that has been more extensive than necessary. However, it was effective in meeting the research data needs for highly accurate data on items that did not affect payments or eligibility. The principal reason that it was more extensive than necessary was due to the effectiveness of the HAO elicitation procedures in preventing the errors in the first place. The emphasis on documentation in the interview and the detailed questioning with well-trained staff members were very important to the success of error control. The documentation enabled HAOs to reduce workloads for third-party verifications because each documented source did not have to be verified, and the HAOs were able to sample cases for verification based on the amount of income and assets documented. As a result, the Brown County HAO verified the client information in about half of its interviews; St. Joseph County verified about 40 percent.

Of the cases verified, major errors (i.e., income errors affecting payments by $10 or more per month, asset errors of $1000 or more, or any error affecting household composition or eligibility) occurred in only 5 to 6 percent of the cases. All of those errors were corrected and collection was attempted for overpayments. Based on these results, we can estimate errors that occurred in cases not selected for verification. We estimate that fewer than 1 percent of those cases had major errors and that these errors represent less than 0.4 percent of the average annual allowance payment.

Even with the small number of errors detected, the HASE system of verification was cost effective; that is, the net savings from the errors detected was greater than the administrative costs of processing the verifications. This clearly would not have been the case if the HAO had verified undocumented items for all households. The HASE sampling system worked well at targeting resources to cases with error, but opportunities exist for further improvements by adjusting sampling criteria to reduce verifications of cases without errors.

The HAO procedure that was least cost effective in terms of administrative cost compared to program savings from the process was manual data review. The HAOs reviewed each transaction (except semiannual recertifications in St. Joseph County) manually to detect and correct any errors before final processing and before payments were affected. This required $5.81 per enrollment interview in Brown County and $8.39 in St. Joseph County. However, the corresponding net amount saved was only $4.59 in Brown County and $2.40 in St. Joseph County.

While this is clearly not cost effective, this procedure played two key roles for the HAOs during the early period of the experiment. First, it placed a clear focus on error control from the very beginning by placing controls in the basic processing, an important advantage in terms of staff attitudes. Second, it served to bring policy and procedural issues to the surface during the first years of the program, which substantially improved the consistency of the application of program rules.

While this procedure was not cost effective for the HAOs in later years, we do judge that it has potential value for the HAOs and other

benefit programs if used more selectively. It could be used for new employees, employees with higher error rates, or for particular types of cases that are error-prone. Advantages are that it catches the error before payments are affected and provides more immediate feedback to the staff member. It also allows the agency to detect and correct its own mistakes rather than having to wait for outside, delayed, quality control reviews. Corrections are much easier to make and are less of a hardship for clients when they are detected early in the process.

The HAOs also conducted quality control reviews on a sample of cases. This was a valuable procedure, especially because of the general error monitoring system maintained by the HAOs that enabled them to identify the cause, type, and effect of the errors and to then evaluate both employee performance and the effectiveness of procedures.

The HAOs also used independent payment system audits each year to test the effectiveness of eligibility determination and payment procedures and the HAOs' application of those procedures. The HAOs specified the payment system audits in great detail, and the audit became a valuable tool for improving procedures and maintaining program integrity.

Finally, the HAOs were active in detecting client misreporting and collecting overpayments, or in referring cases of suspected fraud for prosecution.

RECOMMENDATIONS

Based on our findings and experience with the programs, we have made a list of changes to the current program that might be considered

by the HAOs, even with the little time remaining for the two programs. We would not suggest changing the basic eligibility definitions or the elicitation procedures. There are undoubtedly improvements that can be made and the HAOs may want to test some alternatives; but we do not have data to evaluate alternatives. We do suggest some alternatives related to the frequency of recertification and error control.

Frequency of Review

- Consider discontinuing semiannual recertifications for elderly clients who have no earned income or nonelderly household members. Quarterly reviews using questionnaires (except for the annual interview) would be cost effective for nonelderly households, but because of the short period of time remaining, it may be impractical to add substantial new requirements for clients.
- Maintain records for all special recertifications requested by the clients or initiated by the HAO in a separate data file that also includes the household characteristics. Maintain data on the results from each case initiated. Analysis of this data should indicate how to better focus existing resources, especially for HAO-initiated reviews.

Controlling Client Error

- Both sites have opportunities to improve sampling procedures for verifications. To gather the data needed to evaluate alternatives, the HAOs might consider developing a system that

records the results of each verification, along with key household characteristics. These data could be used to identify error rates for different kinds of cases to allow adjustment of the sampling criteria. No group, except clients with complete documentation, should be excluded from being selected so that the HAOs can monitor changes in behavior.

- The HAOs might also consider changing the threshold for processing major verification errors from errors affecting payments by $10 or more to cases affecting payments by $5 or more. Our analysis indicates that this would add very few cases to the total, but that they would be cost effective. The system could be made even more cost effective by adjusting the assignment criteria for assets. Currently, a case is verified if there are undocumented assets of more than $1000. However, if there is an error of $1000, the effect on payments is only $1 to $2 per month. Perhaps a higher threshold could be used for assignment and an apparent discrepancy could only be processed as a change if the effect on payments is at least $5 per month or if eligiblity is affected. This would reduce a number of verifications now processed that have little effect on payments.

Controlling Staff Error

- Discontinue manual reviews as a standard procedure. These could be combined with quality control reviews (e.g., a sample of cases before processing and a sample after processing), but

it might be better to make the reviews similar to current quality-control procedures and then use manual data review for particular types of cases: those processed by new employees, cases for employees with high error rates, cases with characteristics that make them error prone, particular error-prone items on all cases. This would allow a random sample of cases for quality control that would evaluate the whole system. Manual reviews could then be used for particular error-prone cases in which the error can be detected before it affects payments.

- The St. Joseph County HAO should discontinue the current precertification quality control reviews, whether manual data review is discontinued or not. A combination of very selective reviews before processing and a random sample QC system (with perhaps a 10 percent sample) should be sufficient to maintain adequate error control and increase significantly the cost efficiency of the error control procedures.

SUGGESTIONS FOR OTHER HOUSING ASSISTANCE PROGRAMS

Our recommendations and suggestions are less specific for other housing programs, because we think that most changes should be tested before they are adopted.

- Consider shifting the emphasis from third-party documentation to documentation provided by the clients. Independent audits confirmed the accuracy of the HAO documentation, though it is important to provide minimum specifications for acceptable

documentation. This change would reduce overall error control costs and improve the accuracy of the initial elicitation. In addition, it may be possible to sample cases for verification using procedures similar to those used by the HAOs.

- Consider funding internal review procedures for quality control to detect staff errors. HUD has a difficult challenge in designing an adequate national quality control program because of the large number of small, independent agencies that administer its housing assistance programs. One option to improving quality would be a separate internal procedure that requires separate reviews for a certain number of cases; forms would then record the results of those reviews. This would allow local agencies to catch their own errors and correct them; they would also be in the best position to provide immediate feedback to staff.
- Another quality control option suggested by the HASE experience is to improve and expand the periodic independent audits so that a sufficient number of cases are reviewed to enable a statistically valid statement about the error rate of benefits provided by a partiular agency. This might require regional contracts with audit firms that meet the qualifications required to conduct such audits.
- Consider giving more emphasis to the elicitation procedures used at the agencies. This might include mandatory minimum training for staff members who determine eligibility, face-to-

face enrollment interviews, and more detailed operating guidelines for determining income and assets.

- Consider more frequent reviews of eligibility for nonelderly clients. HASE data indicate that semiannual and perhaps even more frequent reviews would be preferable for nonelderly households. This would be most effective if reviews were conducted using a well-designed questionnaire to monitor changes in income and household composition.

SUGGESTIONS FOR OTHER BENEFIT PROGRAMS

It is more difficult to specify changes for other benefit programs, but below we list items from the HAO experience that might be of most value:

- Rely more on documentation provided by clients; this should reduce costs without sacrificing accuracy. This would be particularly effective if it enables agencies to sample cases for verification but still catch errors.
- Conduct more quality control within local agencies; this would enable them to catch their own mistakes earlier, a better option than having them discovered by state or federal agencies.
- Aid local agencies in the development of information systems to help monitor workloads, errors, and productivity.
- Compare data between eligibility reviews to ensure that adequate explanations are provided for changes to ensure correct reporting before and during the current review.

Appendix A

STANDARDS FOR THE BROWN COUNTY HOUSING ALLOWANCE PROGRAM*

STANDARDS RELATING TO ELIGIBILITY AND ALLOWANCE PAYMENTS

1. Place of Residence

Only households residing in Brown County are eligible to receive housing assistance payments in this program. If households move outside of Brown County, their eligibility for housing assistance payments will terminate.

Applications from those households who are residents of Brown County (household is defined minimally as head-of-household or spouse) are processed automatically on a first-come first-served basis.

2. Household Composition Eligibility Criteria

To be eligible to participate in the program, a household must be one of the following:

a. A household consisting of two or more persons, at least one of whom is an adult, who live together and who are related to each other by blood, marriage or operation of law.

b. A household consisting of one person who is 62 years of age or older, or a household consisting of one person 18 years of age or older who is disabled or handicapped or who has been forced to move because of a federally proclaimed natural disaster or by federal, state or local public action.

Once an eligible household as defined above exists, unrelated persons may count as eligible household members if they live with the household and are dependent on it for 50 percent or more of their support.

Other single persons between 18 and 62 years of age are also eligible, but the number of such households that may receive payments is limited to 10 percent of the total recipients authorized for the program under its Annual Contributions Contract. Because of this limitation, the enrollment of single persons will be implemented in stages, with the priority in the earliest stages being given to older persons within this group.

---

*Standards for the St. Joseph County program are exactly the same except for site specific references.

3. Definition of Disabled and Handicapped

An individual is considered disabled if he is eligible to receive disability assistance from Social Security and other public programs. Handicapped persons are individuals who have a physical or mental impairment which: (a) is expected to be of long-continued and indefinite duration; (b) substantially impedes ability to live independently; and (c) is of such a nature that such ability could be improved by more suitable housing conditions. In cases where disability and physical or mental impairment cannot be easily identified, written verification from the attending physician may be required.

4. Other Individuals Residing with an Eligible Household

Other individuals who reside with an eligible household as defined above are not counted as members of that household for the purpose of determining household size or the applicable standard cost of adequate housing, and their incomes are not counted in the total household income. They are counted, however, in the application of the program's occupancy standard for the size of the housing unit. Such individuals may apply for program participation on their own and may be eligible if they meet program eligibility standards and if the portion of the housing unit they occupy meets the housing evaluation standards of the program.

5. Definition of Adult

An adult is defined as an individual who is 18 years of age or older or is under 18 and considered legally responsible. In households where there is no adult (as defined) a minor may substitute for an adult, provided that he/she has a legal guardian.

6. Definition of Related Persons

The following are considered to be related persons: husbands and wives; sons and daughters; fathers and mothers; aunts and uncles; sons-in-law and daughters-in-law; mothers-in-law and fathers-in-law; brothers-in-law and sisters-in-law; stepsons and stepdaughters; brothers and sisters; first cousins; adopted sons and daughters; grandparents and great-grandparents; grandchildren and great-grandchildren; nephews and nieces; stepbrothers and stepsisters; half brothers and half sisters; stepfathers and stepmothers; and foster sons and daughters.

7. Definition of Support

Support includes payments for food, shelter, clothing, medical and dental care, and educational expenses.

8. Definition of Eligible Household Member

Anyone who lives with an eligible household at the time an eligibility determination is made and who qualifies under the definitions in

A2 above, is an eligible household member and is taken into account in determining the household's size (as used in establishing the applicable standard cost of adequate housing and applying program occupancy standards) and its adjusted gross income. There are two exceptions to the above rule:

a. An individual who is now living with the household but who is expected to leave within the next 30 days and to be absent for a period of 90 consecutive days thereafter is not considered to be an eligible household member.

b. An individual who is not now living with the household but who is expected to join the household within the next 90 days and who is expected to live with the household for a period of at least 90 consecutive days thereafter is considered to be an eligible household member if he qualifies under the definitions of A2 above.

However, any individuals claimed as dependents for income tax purposes may be claimed for the purpose of the dependency deduction even though they do not qualify as eligible household members by the above definitions.

9. Definition of Head of Household

The head of household is an eligible member of a household who is an adult and is legally responsible for the household's relationship with the HAO. If more than one eligible household member qualifies as head of household, the eligible members should designate one of their number as head.

10. Functions of the Head of Household

The head of household must sign the Enrollment Application, the Participation Agreement, and the lease and will be legally responsible for his or her household's relationship with the HAO. The head of household is also the payee for allowance payments and signs all other documents required by the HAO, but he may delegate these responsibilities to another eligible household member if circumstances warrant, e.g., if the head of household is frequently out of town.

11. Students and Armed Forces Personnel

Students and Armed Forces personnel are eligible to enroll in the program if they meet the definition of an eligible household member as defined in A8 above.

12. Loss of Household Members

If household members die, or move away from the housing unit occupied by the household and are expected to be absent so long that they no longer qualify as eligible household members (see A8), the following standards apply:

a. If the members that remain in the unit for which payments are being made include the household head: (1) the members that remain are treated as an eligible household automatically; (2) the members that depart are not treated as an eligible household automatically, but they may apply and enroll as such subject to their meeting all program requirements.

b. If the household head dies or departs, the right to continued payment ceases for the members that remain in the unit unless and until they designate a new household head who signs a new Participation Agreement.

c. If the household head moves to a new unit and other members remain in the unit for which payments are being made, the household head and other members that move with him may constitute an eligible household. However, they must provide information on changes in household status to the HAO at that time and they will be subject to a redetermination of continued eligibility and the amount of the allowance entitlement based on this information.

d. In any case above, if the household remaining in the unit is composed of a single person under 62 years of age who is not handicapped, disabled or displaced, the household composition criterion regarding single-person households will be waived until such time as the household moves out of that particular unit.

13. Income Eligibility Criteria

To be income-eligible at the time of enrollment, a household's size and adjusted gross income (see definition below) must be such that its maximum allowance entitlement is not less than $10 per month. Once enrolled, households continue to be income eligible as long as their household size and adjusted gross income are such that the maximum allowance entitlement is greater than zero.

14. General Definition of Income

The household income used to determine initial and continuing income-eligibility and to calculate the maximum allowance entitlement is adjusted gross income, which is defined as total household income less allowable deductions. Total household income includes income from all sources (excluding nonrecurring income) of the head of household and spouse and of each additional household member who is at least 18 years of age or older, anticipated to be received during the twelve months following enrollment or annual recertification, and excluding the income of full-time students (other than the head or spouse).

15. Components of Total Household Income

The components of total household income include, but are not limited to, the following:

a. Earned Income (before federal, state, FICA, and other mandatory payroll taxes): (1) wages, salaries, fees, commissions, bonuses, tips, including vacation pay, sick-leave pay, and severance pay; (2) net income

derived by the household from a business whether owned individually, in partnership, or in some other form (gross business income less business expenses).

b. Grant Income: (1) Social Security Payments; (2) Supplemental Security Income Benefits (SSI); (3) Unemployment Compensation; (4) Workmen's Compensation, illness or accident benefits over what was needed to cover expenses; (5) Aid to Families with Dependent Children (AFDC); and (6) other public assistance.

c. Other Income: (1) alimony payments received (not included in AFDC); (2) foster parent payments; (3) child support received pursuant to legal order or obligation (not included in AFDC); (4) education stipends, scholarships, fellowships, or GI benefits in excess of what is needed for tuition, fees, and books; (5) recurring cash contributions in excess of $20 per month from persons not living in the household or from private charities; (6) strike benefits, military (housing) allotments, if they are on a continuing basis; (7) net income from rent paid by roomers and boarders (gross income from roomers and boarders less amount of actual expenses incurred in relation to the roomer and his unit); and (8) pensions and annuities (retirement programs for government employees or military personnel, pensions from private employers, veterans' disability, etc.).

d. Cash Income from Income-Producing Assets: (1) net income on real property (rent minus allowable expenses); (2) interest (e.g., from savings accounts, treasury bonds); (3) dividends; and (4) other cash income derived from asset holdings.

e. Income Imputed to Nonincome-Producing Assets: i.e., assets from which no cash income is derived such as real property that has no rental income. Income is imputed to nonincome-producing net assets at the rate of 5 percent per year.

16. Items Excluded from Total Household Income

The following types of income are excluded from the calculation of total household income:

a. Income received by household members less than 18 years of age unless they are head of household or spouse.

b. Income of full-time students, unless they are head of household or spouse.

c. Nonrecurring income, such as: (1) casual, sporadic, or irregular gifts, including amounts that are specifically received for reimbursement of the cost of illness or medical care; (2) lump-sum additions to family assets, such as inheritances or insurance payments, including payments under health and accident insurance and Workmen's Compensation, capital gains, and settlements for personal or property losses (which will be reflected as a change in assets); (3) amount of educational scholarships paid directly to the student or to the educational institution and amounts paid by the federal government to a veteran for use in meeting costs of

tuition, fees, or books, to the extent that such amounts are so used (also affects part-time students); (4) special pay to a serviceman who is head of household, away from home, and exposed to hostile fire; (5) relocation payments made pursuant to Title II of the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (PL-91-646, 84 Stat. 1894); and (6) allotments for the purchase of foods in excess of the amount actually charged eligible households, pursuant to the Food Stamp Act of 1964 (7 U.S.C. 2016[e]).

17. Allowable Deductions

After the Total Household Income has been computed, the following deductions are applied to determine the household's adjusted gross income:

a. Ten percent of household total income for households whose head of household or spouse is 62 years of age or over or disabled or handicapped; 5 percent of household total income for other households.

b. Extraordinary medical expenses where not compensated for or covered by insurance, defined as medical expenses in excess of 3 percent of Total Household Income.

c. Amounts for unusual occupational expenses not compensated for by the employer, such as special tools and equipment, but only to the extent by which such expenses exceed normal and usual expenses incidental to employment.

d. Amounts paid by the household for the care of children or sick or incapacitated household members when determined necessary to the employment of head of household or spouse. The amount deducted shall represent either: (1) the actual amount of expenses verified by receipts or statements from the individual employed to provide the care; or where expenses are not verified, (2) a standard amount to cover no more than 50 hours of care per week at reasonable rates. However, in no case may the amount exceed the amount of income received by the released household member.

e. Exemption of $300 for each dependent, i.e., each minor (other than the head or spouse) and for each adult (other than head or spouse) dependent upon the household for support.

f. Exemption of $300 for each secondary wage earner (a household member deemed to be a dependent under Item e above not included). A secondary wage earner is a household member 18 years of age or older other than the head of household who is not a full-time student and who works more than 20 hours per week.

g. Amounts paid out by a household member for court-documented child support and alimony.

18. Asset Limitation

Your household's total net assets (savings accounts, home equity, etc.) cannot be greater than the program asset limits. These limits change from

time to time. The HAO staff will tell you the limits in force for any particular date.

19. Definition of Assets

Assets are defined as property and other capital items, including but not limited to:

a. Real property.

b. Financial assets, such as: (1) checking accounts; (2) savings accounts; (3) savings bonds and other bonds; (4) cash on hand; and (5) stocks and mutual funds.

20. Definition of Net Value of Assets

The net value of an asset is its market value less encumbrances, such as outstanding mortgages, trusts or deeds, and secured loans.

21. Subsidized Housing

Households residing in housing assisted under federal programs are ineligible to receive housing allowance payments, but may enroll in the program if they intend to move to a nonsubsidized unit. These federal programs are: (a) low rent public housing; (b) HUD Section 23 Leased Public Housing; (c) HUD Section 235; (d) HUD Section 236; (e) HUD Section 221(d)(3) BMIR; (f) mutual self-help housing; (g) rent supplements; (h) HUD Section 202; (i) Farmers Home Administration Section 502; and (j) Farmers Home Administration Section 515.

Units that have been or will be rehabilitated using HUD Section 115 Rehabilitation Grants and/or Section 312 Rehabilitation Loans or Home Improvement Programs do not fall within this definition of subsidized housing.

22. Amount of Assistance

The maximum housing allowance to which an eligible client is entitled is calculated by means of a formula which takes into account the household's annual adjusted gross income and the standard cost of adequate housing in Brown County. The formula provides for housing assistance equal to the difference between the standard cost of adequate housing (varying with household size) and 25 percent of the annual adjusted gross income of the household.

In no case, however, may a household receive a housing allowance payment that exceeds its average actual housing expenses. For renters, actual housing expenses are defined as contract rent plus the standard cost of those utilities not included in the contract rent. For homeowners, actual housing expenses are defined as the actual amount of interest payments on mortgages and other loans for the purpose of improving the house, property taxes, and the standard cost of insurance premiums, utilities, and maintenance.

The maximum allowance entitlement is calculated based on a projected annual rate of adjusted gross income as of the date the information is provided to the HAO by the household. The current rate of income (annualized) is used wherever possible to determine the projected annual rate, provided that current income is documented and represented a steady rate.

STANDARDS RELATING TO HOUSING QUALITY AND OCCUPANCY

1. Introduction

A household enrolled in the Housing Allowance Program may receive allowance payments only when residing in a housing unit (or rooming unit) that has been evaluated by the HAO and has been certified as decent, safe, and sanitary, taking into account both the characteristics of the unit and the characteristics of the assisted household.

2. Definition of Housing Unit and Rooming Unit

Clients may receive allowance payments when residing in either a housing unit or a rooming unit as defined below:

a. Housing Unit: A housing unit is a house, apartment or group of rooms, occupied or intended for occupancy as separate living quarters, which has: (1) access to the outside of the building directly or through a public area within the building, and (2) complete kitchen and bathroom facilities for the exclusive use of the occupants.

b. Rooming Unit: A rooming unit is a room or group of rooms, occupied or intended for occupancy as separate living quarters, which is not a part of a housing unit, and in and of itself does not have all of the characteristics necessary to be a housing unit.

3. Living Space

To be certifiable for occupancy by a program participant, a unit must meet the following minimum standards related to living space:

a. Habitable Rooms: Each habitable room must have a sufficient floor area and ceiling height to permit normal activities by the occupants and must meet requirements set forth below for heating and electrical facilities, natural light and ventilation. (A bathroom--any room containing an unenclosed toilet or bathing facilities--is not a habitable room.) Each habitable room must contain a minimum of seventy (70) square feet of floor area and have a clear height of six (6) feet six (6) inches or more in at least thirty-five (35) square feet of the ceiling area.

b. Bedrooms: Each bedroom must be a habitable room that can be closed off from all other rooms and that does not contain kitchen facilities (except where the space for kitchen facilities and their use does not occupy the dominant portion of the room).

c. Occupancy: The minimum number of bedrooms a unit must have for occupancy by households of various sizes is as follows:

No. of Persons Occupying the Unit	No. of Bedrooms Required
1 or 2 persons	1
3 or 4 persons	2
5 or 6 persons	3
7 or more persons	4

d. Living Room: A unit occupied by more than two persons must have one habitable room in addition to the kitchen and bedrooms to serve as a general living area.

4. Facilities

To be certifiable for the allowance program a unit must have the following minimum facilities:

a. Toilet and bath facilities: A housing unit must contain a separate and private room (or rooms) in which the following are present and in working order: (1) toilet, (2) wash basin with hot and cold running water, (3) bath tub or shower with hot and cold running water. For a rooming unit these facilities must be provided within the same building, reasonably accessible to and available for use by the occupants, and not normally shared by more than eight (8) persons, including the occupants of the rooming unit.

b. Kitchen facilities: A housing unit must contain a kitchen in which the following are present and in working order: (1) cooking stove or range, (2) refrigerator, (3) kitchen sink with hot and cold running water. For a rooming unit, a facility regularly serving hot meals or a kitchen meeting the criteria above must be reasonably accessible to the occupants.

c. Heating facilities: A unit must contain heating facilities that are in working condition and capable of providing adequate heat to all rooms in the unit. A heating fixture is required in every bathroom and habitable room unless the capacity of a fixture in one location is clearly capable of heating more than one surrounding room. Portable electric room heaters may not serve as primary sources of heat. Unvented room heaters that burn gas, oil or other flammable liquids are not acceptable as heating facilities.

d. Electrical facilities: Electrical facilities must be present and in working order in each habitable room and the bathroom as required for the provision of adequate artificial lighting and the operation of necessary household appliances. The kitchen must have two separate electric convenience outlets or one electric convenience outlet and one ceiling or wall electric light fixture with a safe switching device. The bathroom must have at least one electric convenience outlet or one ceiling or wall

light fixture with a safe switching device. All other habitable rooms must have at least one electric convenience outlet.

5. Natural Light and Ventilation

To be certifiable for the allowance program, a unit must meet the following minimum standards:

a. Natural light: Natural illumination of each habitable room except for the kitchen during daylight hours must be strong enough to permit normal domestic activities without artificial lighting. Each habitable room except for the kitchen must have at least one window facing directly outdoors (or to a sun porch).

b. Ventilation: The bathroom and each habitable room must have at least one openable window or other source that provides the equivalent ventilation.

6. Hazardous Conditions

To be certifiable for the allowance program, a unit must be free of conditions that endanger the health and safety of the occupants related to the following elements of the property:

a. Exterior Property Area: Sanitation and storage, grading and drainage, trees and plant materials, and accessory structures or fences.

b. Exterior of the Building: Foundations, walls and exterior surfaces, roofs, stairs, porches and railings, windows, and doors and hatchways.

c. Interior of the Unit and Public Spaces in the Building: Exits, sanitation and storage, walls and ceilings, floors, stairs and railings, toilet and bath facilities, kitchen facilities, heating facilities, electrical facilities, water heater, plumbing system, heating system, and electrical system.

d. Lead-based Paint: In properties where children under seven years of age are to be residents or are frequent visitors during the period when allowance payments are received, conditions endangering the health and safety of the occupants include the existence of any cracking, scaling, chipping, peeling, or loose paint, which may have dangerous lead content, on any applicable surfaces. Applicable surfaces include all interior surfaces and those exterior surfaces such as stairs, decks, porches, railings, windows and doors which are readily accessible to children under seven years of age.

Appendix B

KEY HAO ELIGIBILITY ELICITATION FORMS

This appendix contains copies of the key forms used by the HAOs to elicit information. The Preliminary Application Form was used to screen some elements of eligibility and to start enrollment processing. The Enrollment Application Form was used for all enrollment interviews and a slightly modified version (not included here) was used for Annual Recertification interviews. The Semiannual Recertification Form was mailed to participants to obtain information on changes in household composition and income. A modified version of this form (not included here) was used for Special Recertifications.

The Housing Allowance Office

MODEL: PRELIMINARY APPLICATION

OMB No. 63-R 1457
Expires: 9/30/84

Yes, I would like to be scheduled for a personal interview to find out if I qualify for a Housing Allowance. I understand that this application does not obligate me in any way. It will be used by the Housing Allowance Office in contacting me to make arrangements for an appointment at my convience. I also understand that all information I supply will be treated as confidential.

(PLEASE PRINT)

Name of the Head of Household: _____
(Last Name) (First Name) (Middle Initial)

Home Telephone _____ Work Telephone _____

How many people, including yourself, live in your household? (Please include regular members of the family who may be temporarily away from home, but do not include any roomers or boarders.) _____

Is the head of your household or his/her spouse 62 years of age or older?

Yes ____ No ____

Does your household own the apartment/ house in which you now reside?

Yes ____ No ____

Home Address: _____
(Street Number) (Street) (Apartment Number)

_____
(City) (State) (Zip Code)

Mailing Address: (if different)
_____
(Street Number) (Street) (Apartment Number)

_____
(City) (State) (Zip Code)

Form 10.02-1

The Housing Allowance Office

ENROLLMENT APPLICATION FORM Start Time _____

Input Code	
type	usage
C	

ALL/1

OMB No. 63-R 1457
Expires: 9/30/84

Recycled ☐

PART I – INTRODUCTION

1. CLIENT I.D. NO.: ALL/3

2. DATE OF ENROLLMENT INTERVIEW: 01/11 (MO. DY. YR.)

SERIAL NO.: 01/17

3. CLIENT SERVICES SPECIALIST ID: 01/22

4. NAME OF HEAD OF HOUSEHOLD: ➧ Explain Implications

01/25 (LAST NAME) (FIRST NAME) (MIDDLE INITIAL)

5. NAME OF RESPONDENT:

02/11 (LAST NAME) (FIRST NAME) (MIDDLE INITIAL)

6. TELEPHONE NUMBERS: HOME 02/36

WORK 02/43

7. RESIDENCE ADDRESS:

02/50 (STREET NO.) (STREET) (APT. NO.)

03/11

03/36 (CITY/TOWN) 03/52 (STATE) 3/54 (ZIP)

8. MAILING ADDRESS: (if different)

04/11 (STREET NO.) (STREET) (APT. NO.)

04/36

04/61 (CITY/TOWN) 04/77 (STATE) 5/11 (ZIP)

9. DATE OF PRELIMINARY APPLICATION: 05/16 (MO. DY. YR.)

10. SERIAL NO. OF PRELIMINARY APPLICATION: 05/22

11. NEIGHBORHOOD CODE: 05/27

12. CENSUS TRACT NO.: 05/30

Form 10 05-1
Page 1

PART II – RESIDENCY AND SUBSIDIZED HOUSING

15(a). Does your household live in housing which is subsidized such as:

YES ☐
NO ☐ ➧ if yes, circle one only

(05/37)

HUD Sec. 23 Leased Public Housing 01
HUD Sec. 235 Homeowner Assistance 02
HUD Sec. 236 Rental Assistance 03
HUD Sec. 221 (d) (3) BMIR Rental Assistance ...04
Rent Supplements 05
HUD Sec. 202 Elderly Housing 06
Farmers Home Adm. Sec. 502 (Homeowner) 07
Farmers Home Adm. Sec. 515 (Rental) 08
Self Help Housing 09
Low Rent Public Housing 10
Other 11

➧ If none circled, go to Part III

➧ If one circled, Explain Subsidized Housing Rule

15(b). Do you wish to continue this interview?

YES ☐
NO ☐ ➧ If no, complete Part IX and terminate

PART III – HOUSEHOLD COMPOSITION (TABLE III)

16. Begin by listing the full names and social security numbers of *everyone* who usually lives in the household with you. Please include anyone who may be away from home now but is expected to return within 90 days. Also, please include unrelated persons who pay for room and board. Begin with the head of household, his/her spouse, relatives, and unrelated people.

Have we missed anyone? Anyone who is usually here but is away from home now? Anyone traveling on business or vacation? Any babies or small children? Any expected births within the next 90 days?

➧ Read list to respondent for completeness and correctness.

Is anyone listed here expected to be away from home during the next 12 months?

➧ Use 30/90 day rule. Cross out person's name from table if necessary.

➧ Check eligible members. ➧ Assign consecutive numbers to eligible members in Column B.

➧ Go to Part IV

TABLE III
HOUSEHOLD COMPOSITION

Client ID 07/3 [ ][ ][ ][ ][ ][ ]

A	B	C	D	E	F	G		H		I
Elig. (✓)	Member Number 07/11	Name of Household Member 07/13	07/38	Sex (M,F.) 47	48	Relationship to Head of Household	Code 49	Date of Birth Mo. 7/51	Yr. 7/53	Minor M / FT Stu S / Others X 7/55

RELATIONSHIP TO HEAD OF HOUSEHOLD

01 Head of Household
02 Husband or wife
03 Son or daughter
04 Father or mother
05 Brother or sister
06 Grandparent or great grandparent
07 Great-grandchildren
08 Nephew or niece
09 Aunt or uncle
10 Son in law or daughter in law
11 Father in law or mother in law
12 Brother in law or sister in law
13 Step son or step daughter
14 Step brother or step sister
15 Half brother or half sister
16 Step father or step mother
17 First cousin
18 Foster son or foster daughter
19 Dependent (not related
20 Unrelated (not dependent)

Number of eligible members in household	[ ][ ]	8/11
Total number of persons listed	[ ][ ]	8/13
Number of dependents away from home (not listed above – from Q. 26)	[ ][ ]	8/15

PART IV – ASSETS (TABLE IV)

18. Do you or any other member of your household own any real estate such as:

CODE	ITEM	YES	NO
540	Own Home	Y	N
550/551	Land Only	Y	N
550/551	Building	Y	N
550/551	Other	Y	N

➧ Ask for tax and mortgage statements.

19. Do you or any other member of your household have any of the following?

CODE	ITEM	YES	NO
520	Checking accounts in excess of $250 for each person	Y	N
520	Cash on hand in excess of $250 for each person	Y	N
510	Savings Accounts	Y	N
561	U.S. Savings Bonds	Y	N
562	Other Bonds	Y	N
563	Stocks	Y	N
564	Mutual Funds	Y	N
566	Other Securities	Y	N

20. Does your household have outstanding debts in excess of $2000, such as consumer loans, credit card debts, etc.? Do not include mortgages (loans secured by the home), business loans, or loans secured by cars or other vehicles.

CODE	ITEM	YES	NO
570	Debts	Y	N

➧ If yes, Post a Negative Amount to Table IV.

REAL ESTATE WORKSHEET

	OWN HOME				OTHER REAL ESTATE		
	ENTIRE HOME A	CLIENT'S RESIDENTIAL QUARTERS B	OTHER C	BASIS FOR PRORATING D	1 E	2 F	3 G
Assessed Value							
E. A. V.							
Outstanding First Mortg.							
Other Outstanding Mortgages							
Equity							
Gross Rental Income							
Interest							
Taxes							
Insurance							
Maintenance							
Utilities							
Depreciation							
Fees							
Other							
Total Expenses							
Net Rental Income	CODE 310						

22. Compute imputed income.

➧ Post to Table V (Code 340)

Form 10.05-1
Page 4

TABLE IV

ASSETS

Client ID 09/3

A	B	C	D	E	F	G	H	I	J	K	L
MEMBER NUMBER	TYPE OF ASSET	CODE	ASSETS HELD BY STUDENTS OR MINORS	NEG.	ASSETS HELD BY ADULTS: NON-INCOME PRODUCING	NEG.	ASSETS HELD BY ADULTS: INCOME PRODUCING	NEG.	INCOME FROM INCOME PRODUCING ASSETS	DESCRIPTIONS AND COMMENTS	✓ DOC.
		09/13	09/14	19	09/14	19	09/14	19			
TOTALS									TOTAL NET ASSETS	10/11 16	OWN HOME VALUE 10/17

Form 10.05-1
Page 5

PART V – TOTAL HOUSEHOLD INCOME (TABLE V)

23. Did you or any other adult member of your household have any income from any of the following sources during the past 12 months?

CODE	ITEM	YES	NO	
100	Salaries, Wages	Y	N	➧ If Yes, enter to Table V
110	Tips, Commisions, Bonuses .	Y	N	
120	Profit after self-paid income under 100 or 110.....	Y	N	

CODES FOR COLUMN C
TABLE V

100 Series – Wages and Salaries
- 101 – Current Owned Business Self Empl
- 102 – Current Other Self-Employment
- 103 – Current Regular Employment
- 104 – Current Non-Regular Employment
- 105 – Multi-Job Employment
- 106 – Past Part Year Employment

110 Series – Tips, Bonuses, Commissions
- 111 – Current Owned-Business Self-Empl.
- 112 – Current Other Self-Employment
- 113 – Current Regular Employment
- 114 – Current Non-Regular Employment
- 115 – Multi-Job Employment
- 116 – Past Part Year Employment

120 Series – Profits After Self-Paid Income under 100 or 110.
- 121 – Current Owned-Business Self Empl.
- 122 – Current Other Self-Employment

24. Does your household currently receive any rental income from roomers and boarders?

CODE	ITEM	YES	NO
310	Rental Income	Y	N

GROSS RENTAL INCOME	FOOD	.....	NET RENTAL INCOME CODE 310
	LAUNDRY	.....	
	UTILITIES	.....	
	TOTAL EXPENSES		

➧ Post annualized Net Rent to Table V-A

➧ Enter Names of Roomers in Column I.

25. Do you or any other adult member of your household currently receive any income from any of the following sources?

CODE	ITEM.	YES	NO
210	Pensions and Annuities	Y	N
220	Social Security	Y	N
230	City Welfare	Y	N
231	AFDC	Y	N
235	S.S.I.	Y	N
236	Other Welfare	Y	N
241	Unemployment Insurance	Y	N
242	Workmen's Compensation	Y	N
251	Alimony	Y	N
252	Foster Parents Payments	Y	N
253	Child Support Payments	Y	N
260	Scholarships (in excess of fees)	Y	N
270	Recurring Cash Contribution	Y	N
280	Recurring Strike Benefits	Y	N
290	Recurring Military Allotments	Y	N
295	V.A. Benefits	Y	N
299	Other	Y	N

INCOME CODES

Interest: 320

Dividends: 330

TABLE V
TOTAL HOUSEHOLD INCOME

Client ID 11/3 [| | | | | |]

A	B	C	D	E	F	G	H	I	J
MEMBER NUMBER 11/11	TYPE OF INCOME	CODE 11/13	11/16	HRS/ WEEK 11/18	WEEKS/ YEAR 11/20	INCOME 11/22	NEG. 27	DESCRIPTION AND COMMENTS	DOC. (✓)
	TOTAL HOUSEHOLD INCOME ➡								

Form 10.06-1
Page 7

PART VI – DEDUCTIONS & CALCULATION OF MAXIMUM ALLOWANCE ENTITLEMENT (TABLE VI)

- Carry forward total household income from Table V.
- Enter 10% or 5% deduction as applicable.
- Compute secondary wage earner deduction. (Do not include head of household.)

26. Show Table III to client. Are there any persons not listed here whom you support? Any member of the household who is currently away from home and at school and for whom you pay expenses? Anyone who is in a hospital for whom you pay major expenses? How does your household contribute to (member's) support?

- If court ordered child or alimony support, do not include here. Enter to Question 31.
- Enter total number of dependents away from home to bottom of Table III.
- Compute and enter dependency deductions from Table III. (Do not include head of household, spouse, primary and secondary wage earners.)

27. Do you or any other adult member of your household have unusual occupational expenses not compensated by employer, such as special tools and equipment, travel expenses, etc., necessary to employment?

YES ☐ ➧ Identify expenses in Column F of Table VI.

NO ☐

28. Does your household make payments for child care, or for care of sick or incapacitated household members, so that the head of household or spouse can go to work?

YES ☐ ➧ Identify member released for work and dependent who needs care, in Column F of Table VI.

NO ☐

29. Compute 3% of Total Household Income. Post to Medical Worksheet.

30. During the past 12 months, did your household pay unreimbursed medical expenses in excess of ? (Amount from Question 29)?

YES ☐ ➧ Record on Medical Worksheet. Post Total to Table VI.

NO ☐

31. Do you or any other member of your household currently make court-ordered alimony or child-support payments to persons outside your household?

YES ☐ ➧ Identify persons making and receiving payments in Columns A and F of Table VI.

NO ☐

MEDICAL WORKSHEET

DESCRIPTION	AMOUNT
.....	.....
.....	.....
.....	.....
.....	.....
.....	.....
.....	.....
.....	.....
.....	.....
.....	.....
.....	.....
.....	.....
.....	.....
.....	.....
.....	.....
.....	.....
.....	.....
TOTAL MEDICAL EXPENSES	
3% OF TOTAL HOUSEHOLD INCOME	
MEDICAL DEDUCTION	

TABLE VI

DEDUCTIONS AND CALCULATION OF MAXIMUM ALLOWANCE ENTITLEMENT

Client ID 11/3

A	B	C	D	E	F	G
MEMBER NUMBER 11/11	TYPE OF DEDUCTION	CODE 11/13	AMOUNT 11/22	NEG. 27	DESCRIPTION AND COMMENTS	DOC (✓)
	Total Household Income (Carry forward from Table V)					
	5% or 10%	410		–		
	Secondary Wage Earner	420		–		
	Dependency	430		–		
	Occupational Expenses	440		–		
	Child Care	450		–		
	Sick Care	460		–		
	Medical	470		–		
	Alimony & Child Support	480		–		

ADJUSTED GROSS INCOME → 12/17 22

R* 12/23

25% of Adjusted Gross Income

Maximum Allowance Entitlement - Annual

Maximum Allowance Entitlement - Monthly

Form 10.05-1
Page 9

PART VIII

I understand that the information provided on this Enrollment Application Form will be regarded in strict confidentiality, will be used only for the operational and research purposes of the Housing Allowance Program, and will not be disclosed or released for any other purposes without my prior consent, except as required by law.

I certify that all information I have provided as set forth in this form, including attachments, is full, accurate, and complete to the best of my knowledge. The penalty for making false statements in this form is prescribed in Section 1001 of Title 18 of the U.S. Code.

45. DATE 06/11 [ ][ ][ ][ ][ ][ ] (MO. DY. YR.) SIGNATURE OF HEAD OF HOUSEHOLD _____

46. NAME OF PAYEE 06/17 [ ] (LAST NAME) (FIRST NAME) (MIDDLE INITIAL)

PART IX – FOR OFFICE USE ONLY

Signed Participation Agreement ..... 06/42 Y → DATE OF PARTICIPATION AGREEMENT 06/43 [ ][ ][ ][ ][ ][ ] (MO. DY. YR.)
Did not Sign Participation Agreement.. N

REASON FOR NOT SIGNING PARTICIPATION AGREEMENT 06/49

- Eligible but Declined Participation .... Y N
- Ineligible – Residency ..... Y N
  - Household Composition .. Y N
  - Assets ..... Y N
  - Income ..... Y N
- Eligibility Undetermined..... Y N

VERIFICATION CODE 06/65 [ ]

LENGTH OF INTERVIEW 06/66 [ ][ ][ ] Minutes

If no interview, circle one 06/69

- No Contact ..... Y N
- Found Ineligible ..... Y N
- Declined Interview ..... Y N
- No-Show (repeated) ..... Y N
- Other ..... Y N

SIGNATURE _____ (CLIENT SERVICE SPECIALIST)

PART VII – HOUSING EXPENSES – RENTERS (Revised 5/11/79)

Client ID 14/3 [ ][ ][ ][ ][ ][ ]

32. Is your residence:

Circle One

Rented from someone not in this household . . . . . R
Occupied rent free . . . . . F

14/11

33. Is your residence:

Circle One

A single family home? 1
A duplex? 2
A multi-family apartment building? 3
A mobile home or trailer? 4
A room in a private home, rooming house, residential hotel, or nursing home? 5

14/12

34. How many rooms does your residence have (do not count bathrooms, hallways, porches, unfinished attics, basements or rooms rented to roomers)? . . . . . [ ][ ]

35. Do you pay rent by the week, month, year, or what?

Circle One

Week (x 4.3) 1
Every two weeks (x 2.15) 2
Twice a month (x 2) 3
Month 4
Year (÷ 12) 5
Other (Specify) 6

36. How much rent do you pay per (period from Q. 35)? Please tell me the total amount you pay the landlord, including any charges you may pay for furnishings and kitchen appliances.

$ [ ] [ ][ ][ ] [ ][ ]

37. Is any part of the property that you rent used for other than your own residential purposes?

Circle One

Yes . . . . . Y
No . . . . . N

14/13

If no, go to Question 39.

38. About how much of the rent do you attribute to the portion of the property you use as your residence?

$ [ ] [ ][ ][ ] [ ][ ]

39. Enter monthly equivalent amount from Question 23.

If blank, enter monthly equivalent amount from Question 36.

$ [ ][ ][ ] [ ][ ]

14/14

43. Do you pay extra for any utilities in addition to your rent?

Describe here _____

_____

Circle

Lighting	Y	N
Cooking	Y	N
Water Heating	Y	N
Heating	Y	N
Garbage Collection	Y	N
Sewage Disposal	Y	N
Water	Y	N

14/22

Form 10.05-1 Page 11

Compute and enter total standard monthly cost of utilities household pays extra for

$ [ ][ ][ ] [ ][ ]

14/29

44. Add amounts in Q. 39 & 43. Enter total here. TOTAL MONTHLY HOUSING EXPENSES

$ [ ][ ][ ] [ ][ ]

14/34

PART VII — HOUSING EXPENSES — HOMEOWNERS

13/3 Client ID ☐☐☐☐☐☐

32. Homeowner. . . . . H 13/11

33. Is your residence: ➧ Circle One 13/12

A single family home? 1
A duplex? 2
A multi-family apartment building? 3
A mobile home or trailer? 4

34. How many rooms does your residence have (do not count bathrooms, hallways, porches, unfinished attics, basements or rooms rented to roomers)? . . . . . ☐☐

35. Is any part of the property that you own used for other than your own residential purposes? ➧ Circle One 13/13

Yes . . . . . Y
No . . . . . N

36. Is your (apartment/house): ➧ Circle One 13/14

Owned free and clear . . . . . 1 ➧ Go to Q. 39
Mortgaged 2
Being bought by an installment contract or other method of purchase 3

37. How many mortgages are outstanding on your home? . . . . . ☐

38. Obtain mortgage, contract, and/or loan statements.

39. Do you pay any real estate taxes or any special tax assessments on this property that are not included in your mortgage or contract payments?

YES ➧ Obtain tax assessment bills.
NO

40. Which of the following utilities are not included in your property taxes and do you pay extra for? ➧ Circle 13/15

Garbage . . . . . Y N
Sewer. . . . . Y N
Water. . . . . Y N

41. Compute and enter following amounts:

a. Total monthly interest on mortgage or contract . . . . . $ ☐☐☐ ☐☐ 13/18
b. Total monthly real estate and other special taxes . . . . . $ ☐☐☐ ☐☐ 13/23
c. Monthly insurance premium (standard) . . . . . $ ☐☐☐ ☐☐ 13/28
d. Total monthly maintenance costs (standard) . . . . . $ ☐☐☐ ☐☐ 13/33
e. Total monthly utility costs (standard) . . . . . $ ☐☐☐ ☐☐ 13/38
f. Other (site rent) . . . . . $ ☐☐☐ ☐☐ 13/43

42. Add Questions 41 a, b, c, d, e, f. TOTAL MONTHLY HOUSING EXPENSES . . . . . $ ☐☐☐ ☐☐ 13/48

43. TOTAL MONTHLY INTEREST *PLUS* PRINCIPAL PAYMENT ON MORTGAGE CONTRACT. . . $ ☐☐☐ ☐☐ 13/53

The Housing Allowance Office

MODEL FOR SEMI-ANNUAL RECERTIFICATION
FORM COVER LETTER

Dear (Client):

The purpose of this Semi-Annual Recertification Form is to collect up-to-date information about your household's size and income. This information will be used to review your eligibility for the program and to adjust the amount of your allowance payment, if necessary.

1. Instructions should be read carefully before answering each question. Answers should be printed in ink or ball-point pen.

2. The head of the household must sign the form.

3. The form must be returned to the HAO before the due date shown at the top of the next page. Your payments will have to be suspended if it is not returned on time.

After we review the form, it may be necessary to call you to obtain more information or to ask for documentation to support information you have provided.

We will notify you of the results of our review as soon as possible after we receive the form. If a change in the amount of your allowance payment is necessary, it will be effective with your check for the month of _____.

All information you provide will, as always, be treated in a strictly confidential manner. However, like the information you have provided to date, it will be subject to verification.

If you need any assistance in completing this form, please call the HAO.

Sincerely,

The Housing Allowance Office

MODEL FOR SEMI-ANNUAL RECERTIFICATION FORM

CLIENT I.D. NO.: CSS NO.: DUE DATE: PAGE 1

HEAD OF HOUSEHOLD:

1. IF THE ADDRESS AND PHONE NO. PRINTED BELOW ARE NOT CORRECT, PLEASE WRITE YOUR NEW ADDRESS AND PHONE NO. IN THE SPACE PROVIDED AT THE RIGHT.

   ADDRESS: ADDRESS:

   PHONE NO.: PHONE NO.:

2. IF ANY OF THE FOLLOWING PEOPLE NO LONGER LIVE WITH YOU, CROSS OUT THEIR NAMES.

3. IF ANYONE ELSE IS LIVING WITH YOU PLEASE LIST THEM BELOW.

NAME	RELATIONSHIP	SOCIAL SEC. NO.	BIRTHDATE

4. PLEASE WRITE IN THE AMOUNT OF MONEY THAT YOUR HOUSEHOLD IS NOW RECEIVING FROM ANY OF THE FOLLOWING SOURCES. (STATE WHETHER AMOUNT IS WEEKLY OR MONTHLY).

PENSIONS & ANNUITIES	$_____	ALIMONY	$_____
SOCIAL SECURITY	$_____	FOSTER PARENTS PAYMENTS	$_____
SSI	$_____	CHILD SUPPORT PAYMENTS	$_____
CITY OR TOWN WELFARE	$_____	SCHOLARSHIPS	$_____
OTHER WELFARE	$_____	CASH CONTRIBUTIONS	$_____
AFDC	$_____	STRIKE BENEFITS	$_____
UNEMPLOYMENT INSURANCE	$_____	MILITARY ALLOTMENTS	$_____
WORKMANS COMPENSATION	$_____	VA BENEFITS	$_____
OTHER	$_____	EXPLAIN---	

SEMI-ANNUAL RECERTIFICATION FORM (Continued)

CLIENT I.D. NO.: PAGE 2

5. WRITE THE NUMBER OF HOUSEHOLD MEMBERS RECEIVING MEDICARE: _____

6. EMPLOYMENT:

A. IN THE SPACE BELOW, LIST EACH PERSON 18 YEARS OF AGE OR OLDER WHO IS NOW WORKING. (PLEASE PROVIDE ALL OF THE REQUESTED INFORMATION.)

NAME	EMPLOYER	TYPE OF WORK	CURRENT RATE OF PAY	AVG. NO. OF HOURS PER WEEK

B. IF ANYONE OVER 18 HAS LOST EMPLOYMENT, PROVIDE THE FOLLOWING INFORMATION.

NAME	FORMER EMPLOYER	DATE LAST WORKED

7. **RENTERS ONLY** HOW MUCH RENT DO YOU PAY PER MONTH? $_____

THIS DOCUMENT MUST BE SIGNED BY THE HEAD OF HOUSEHOLD WHOSE NAME APPEARS AT THE TOP OF PAGE 1. IF THIS PERSON WILL NOT BE AVAILABLE TO SIGN THIS FORM BY THE DATE THIS FORM IS DUE AT THE HAO, PLEASE EXPLAIN WHY AND RETURN THE FORM UNSIGNED.

I CERTIFY THAT ALL THE INFORMATION I HAVE PROVIDED IN THIS FORM IS ACCURATE AND COMPLETE TO THE BEST OF MY KNOWLEDGE. FURTHERMORE, I CERTIFY THAT THE HOUSING ALLOWANCE PAYMENTS WHICH I HAVE RECEIVED, OR THEIR EQUIVALENT AMOUNT HAVE BEEN USED FOR HOUSING EXPENSES.

_____ _____

SIGNATURE (HEAD OF HOUSEHOLD ONLY) DATE SIGNED

Appendix C
SUMMARY DESCRIPTION OF HAO VERIFICATION DATA

The HAOs did not maintain an automated system for recording the results of verifications. Major errors did result in changes to client records and payments, but these cannot be isolated adequately from other transactions in the HAO files to permit analysis. Therefore, the analysis of verifications relies on a number of data sources which have been linked. These data sources include: (1) HAO Monthly Program Reports, (2) HASE analysis files based on HAO administrative records for program years 1-4, and (3) a file of verification errors developed by HASE staff from hard-copy client records. This appendix provides a number of tables which summarize cases processed, cases verified, cases with errors, and the average size of the errors. These data are presented by verification code and by client group.

HAO Monthly Reports

The HAOs prepared monthly reports with standard formats and definitions for reporting client status, workloads, and other administrative data. The reports contain transaction counts by verification sampling code assigned for total cases processed, cases verified, cases with major verification errors, and (for Brown County only) cases with minor verification errors.* Summaries of the data from these reports by transaction type and verification code for each of the five years of the program are summarized in Tables C-1 through C-8.

---

*The count of minor errors is biased upward. Apparent discrepancies not meeting the definition of a major error (e.g., income error of $40 or more per month, asset error of $1,000 or more) were counted by the HAO but no change was made in client payment. As a result, the clients were not offered a chance to challenge the third party report. From the HAO experience with such challenges to apparent major discrepancies, some percentage of minor errors could be expected to have been successfully challenged by the clients.

HASE Analysis Files of Enrollments and Recertification Transactions

The HAO Monthly Reports provide the most accurate count of cases verified and of the corresponding errors. However, they provide no information on the characteristics of the clients to identify differences in the probability of verification among client groups. These data are available from a file containing data on the clients and their income at each eligibility determination, including the verification code assigned. These data were compiled only for years 1-4 but the data used in this report apply only to program years 2-4. Because of lags in the timing of computer processing, the data from the HAO reports and the automated data file do not match precisely . For the verification analysis we have estimated the characteristics of the total population of cases verified for years 2-4 as indicated by the HAO Monthly Reports by applying to this population the distribution of those characteristics among the clients in the automated file of enrollment and recertification transactions. Complete data on client characteristics are available only for enrollments and annual recertifications. The analysis was limited to years 2-4 in order to coincide with the data available on individual verification errors.

Verification Error File

HAO processing logs for both sites identify by verification code those cases with major verification errors. HASE staff attempted to obtain data on all major verification errors for program years 2-4 by examining hard-copy client records for transactions identified on HAO logs.

This file contains the results of a large number of the major verification errors and of the clients' characteristics, including life-cycle and tenure. The samples and HAO Monthly Program Report totals vary slightly (in almost all cases they are within 5 percent of each other). This variance is because hard-copy records of some transactions identified in the HAO logs were unavailable and because of difficulties in matching time periods. (The logs identify cases at the beginning of the process but the program reports record only completed verifications.) We judge the cases on which data were obtained

to reasonably represent the errors in the HAO reports. However, because of the small number of errors in some categories, there is some error in the estimates.

Tables C-9 through C-16 summarize the data on verifications and major errors by tenure and client group for enrollments and each type of recertification. They use the distribution of this data to estimate the distribution of the total cases verified indicated by HAO records. These tables also distribute the data on the errors from the samples of errors to the total errors identified on HAO reports. Finally, these tables contain the average size of the major errors for each tenure and client group.

As indicated, transaction counts on minor errors detected by verifications are available only for Brown County. These counts are maintained on logs by the HAO which are separated by process and verification code. To develop a file of minor errors, HASE staff attempted to locate each error occurring during years 2-4 for semi-annual and special recertifications. However, for enrollments and annual recertifications, this would have required too great an investment because of the large number of such minor errors. Therefore, HASE staff attempted to locate all cases on the "A," "B," and "D" logs, and a random sample of cases from the "C" logs.

Tables C-17 through C-20 describe how the characteristics of clients from the cases in the error sample are distributed to the total number of errors identified in HAO records. These tables also indicate the average size of the minor errors for each of these client groups and by verification code.

Table C-1

SUMMARY OF CASES PROCESSED AND VERIFIED AND OF VERIFICATION ERRORS BY SAMPLING CODE FOR PROGRAM YEARS 1-5: BROWN COUNTY ENROLLMENTS

Verification Sampling Code	Program Years					
	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Cases Processed						
A	1,490	670	837	780	71	3,848
B	189	16	79	68	8	360
C	1,570	1,059	734	490	528	4,381
D	0	49	82	150	183	464
F	0	0	0	158	928	1,086
Total	3,249	1,794	1,732	1,646	1,718	10,139
Cases Verified						
A	146	78	80	90	10	404
B	63	17	28	23	4	135
C	1,550	1,014	768	458	476	4,266
D	0	42	88	146	163	439
Total	1,739	1,151	964	717	653	5,244
Major Verification Errors						
A	1	0	2	0	0	3
B	7	0	0	0	1	8
C	112	50	47	31	40	280
D	0	5	11	11	1	28
Total	120	55	60	42	42	319
Minor Verification Errors						
A	5	5	3	4	4	21
B	29	7	8	11	0	55
C	598	411	348	208	165	1,730
D	0	14	25	35	26	100
Total	632	437	384	258	195	1,906

SOURCE: Calculated by HASE staff from HAO Monthly Program Reports for five year period ending June 30, 1979.

NOTE: There is a lag in time between cases processed and cases verified due to the time required to complete the verifications. To calculate cases verified as a percent of cases processed as reported here would understate the verification rate. Therefore, in the text, separate estimates are made of cases processed that correspond to the population from which the verified cases were selected.

Table C-2

SUMMARY OF CASES PROCESSED AND VERIFIED AND OF MAJOR VERIFICATION ERRORS BY SAMPLING CODE FOR PROGRAM YEARS 1-5: ST. JOSEPH COUNTY ENROLLMENTS

Verification Sampling Code	Program Years					
	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Cases Processed						
A	1,263	2,999	2,114	694	313	7,383
B	551	200	664	309	314	2,038
C	1,405	645	975	1,085	1,684	5,795
D	335	278	150	129	87	979
F	0	0	0	882	1,469	2,351
Total	3,554	4,123	3,903	3,099	3,867	18,546
Cases Verified						
A	120	327	182	79	48	756
B	126	115	168	58	120	587
C	900	1,044	916	1,034	1,693	5,587
D	147	442	149	120	101	959
Total	1,293	1,928	1,415	1,291	1,962	7,889
Major Verification Errors						
A	1	7	0	0	0	8
B	5	2	0	0	3	10
C	49	41	32	84	187	393
D	8	12	11	12	-1*	42
Total	63	62	43	96	189	453

SOURCE: Calculated by HASE staff from HAO Monthly Program Reports for five year period ending December 31, 1979.

NOTE: See Table C-1.

*This represents a correction to prior year's total.

Table C-3

SUMMARY OF CASES PROCESSED AND VERIFIED AND OF VERIFICATION ERRORS BY SAMPLING CODE FOR PROGRAM YEARS 1-5: BROWN COUNTY ANNUAL RECERTIFICATION

Verification Sampling Code	Program Years					
	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Cases Processed						
A	0	603	835	1,327	377	3,142
B	0	67	76	226	7	376
C	0	1,215	1,201	696	469	3,581
D	0	38	135	164	186	523
F	0	0	0	306	1,880	2,186
Total	0	1,923	2,247	2,719	2,919	9,808
Cases Verified						
A	0	54	86	115	53	308
B	0	20	22	79	2	125
C	0	1,107	1,317	714	469	3,607
D	0	42	128	110	201	481
Total	0	1,223	1,553	1,018	725	4,521
Major Verification Errors						
A	0	0	0	3	3	6
B	0	3	0	1	0	4
C	0	40	46	41	39	166
D	0	2	10	8	7	27
Total	0	45	56	53	49	203
Minor Verification Errors						
A	0	3	8	15	13	39
B	0	8	13	27	1	49
C	0	453	660	531	211	1,855
D	0	13	36	48	65	162
Total	0	477	717	621	290	2,105

SOURCE: Calculated by HASE staff from HAO Monthly Program Reports for five year period ending June 30, 1979.

NOTE: See Table C-1.

Table C-4

SUMMARY OF CASES PROCESSED AND VERIFIED AND OF MAJOR VERIFICATION ERRORS BY SAMPLING CODE FOR PROGRAM YEARS 1-5: ST. JOSEPH COUNTY ANNUAL RECERTIFICATIONS

Verification Sampling Code	Program Years					
	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Cases Processed						
A	0	1,684	1,804	985	595	5,068
B	0	108	903	1,073	934	3,018
C	0	255	1,010	832	1,060	3,157
D	0	47	59	80	72	258
F	0	0	0	1,674	1,981	3,655
Total	0	2,094	3,776	4,644	4,642	15,156
Cases Verified						
A	0	170	179	116	77	542
B	0	27	237	363	347	974
C	0	224	885	923	1,039	3,071
D	0	40	36	90	83	249
Total	0	461	1,337	1,492	1,546	4,836
Major Verification Errors						
A	0	1	5	2	2	10
B	0	0	3	8	13	24
C	0	4	17	49	72	142
D	0	0	3	5	4	12
Total	0	5	28	64	91	188

SOURCE: Calculated by HASE staff from HAO Monthly Program Reports for five year period ending December 31, 1979.

NOTE: See Table C-1.

Table C-5

SUMMARY OF CASES PROCESSED AND VERIFIED AND OF VERIFICATION ERRORS BY SAMPLING CODE FOR PROGRAM YEARS 1-5: BROWN COUNTY SEMIANNUAL RECERTIFICATIONS

Verification Sampling Code	Program Years					
	Year 1	Year 2	Year 3	Year 4	Year 5	Total
			Cases Processed			
A	885	2,372	3,083	2,867	631	9,838
B	27	73	46	53	174	373
C	38	99	91	143	270	641
D	0	30	73	36	123	262
F	0	0	0	215	2,474	2,689
Total	950	2,574	3,293	3,314	3,672	13,803
			Cases Verified			
A	0	219	0	0	0	219
B	0	29	20	21	50	120
C	0	141	113	122	270	646
D	0	23	84	20	106	233
Total	0[a]	412	217	163	426	1,218
			Major Verification Errors			
A	0	1	0	0	0	1
B	0	3	1	0	2	6
C	0	10	8	9	28	55
D	0	6	7	0	5	18
Total	0[a]	20	16	9	35	80
			Minor Verification Errors			
A	0	15	0	0	0	15
B	0	8	5	4	19	36
C	0	20	27	23	92	162
D	0	4	12	15	28	52
Total	0[a]	47	44	42	139	272

SOURCE: Calculated by HASE staff from HAO Monthly Program Reports for five year period ending June 30, 1979.

NOTE: See Table C-1.

[a]No verifications were recorded as completed during the first year of the program; the verifications completed in year 2 include cases from year 1.

Table C-6

SUMMARY OF CASES PROCESSED AND VERIFIED AND OF MAJOR VERIFICATION ERRORS BY SAMPLING CODE FOR PROGRAM YEARS 1-5: ST. JOSEPH COUNTY SEMIANNUAL RECERTIFICATIONS

Verification Sampling Code	Program Years					
	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Cases Processed						
A	235	3,658	5,164	4,747	4,026	17,830
B	16	87	61	119	143	426
C	11	164	116	276	519	1,086
D	0	14	2	13	13	42
F	0	--	--	329	767	1,096
Total	262	3,923	5,343	5,484	5,468	20,480
Cases Verified						
A	0	123	0	0	1	124
B	0	32	18	23	46	119
C	0	156	126	213	543	1,038
D	0	8	7	8	15	38
Total	0[a]	319	151	244	605	1,319
Major Verification Errors						
A	0	4	3	0	0	7
B	0	2	0	2	1	5
C	0	5	8	9	38	60
D	0	0	1	0	3	4
Total	0[a]	11	12	11	42	76

SOURCE: Calculated by HASE staff from HAO Monthly Program Reports for five year period ending December 31, 1979.

NOTE: See Table C-1.

[a]No verifications were recorded as completed during the first year of the program; the verifications completed in year 2 include cases from year 1.

Table C-7

SUMMARY OF CASES PROCESSED AND VERIFIED AND OF VERIFICATION ERRORS BY SAMPLING CODE FOR PROGRAM YEARS 1-5: BROWN COUNTY SPECIAL RECERTIFICATIONS

Verification Sampling Code	Program Years					
	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Cases Processed						
A	0	74	194	151	10	429
B	0	27	31	26	5	89
C	0	70	182	179	101	532
D	0	7	22	14	42	85
F	0	--	--	37	395	432
Total	0	178	429	407	553	1,567
Cases Verified						
A	0	6	19	12	5	42
B	0	7	12	5	8	32
C	0	60	173	119	153	505
D	0	5	21	14	31	71
Total	0	78	225	150	197	650
Major Verification Errors						
A	0	1	0	0	0	1
B	0	0	0	0	0	0
C	0	3	8	0	6	17
D	0	1	4	0	1	6
Total	0	5	12	0	7	24
Minor Verification Errors						
A	0	0	2	0	2	4
B	0	2	0	0	3	5
C	0	6	20	19	28	73
D	0	0	3	0	3	6
Total	0	8	25	19	36	88

SOURCE: Calculated by HASE staff from HAO Monthly Program Reports for five year period ending June 30, 1979.

NOTE: See Table C-1.

Table C-8

SUMMARY OF CASES PROCESSED AND VERIFIED AND OF MAJOR VERIFICATION ERRORS BY SAMPLING CODE FOR PROGRAM YEARS 1-5: ST. JOSEPH COUNTY SPECIAL RECERTIFICATIONS

Verification Sampling Code	Program Years					
	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Cases Processed						
A	41	422	128	37	32	660
B	7	91	67	35	11	211
C	84	225	573	298	269	1,449
D	11	18	3	20	20	72
F	0	0	0	258	397	655
Total	143	756	771	648	729	3,047
Cases Verified						
A	0	97	17	3	2	119
B	0	25	27	13	6	71
C	0	255	598	292	259	1,404
D	0	24	6	16	22	68
Total	0	401	648	324	289	1,662
Major Verification Errors						
A	0	0	2	0	0	2
B	0	0	0	0	0	0
C	0	1	13	14	18	46
D	0	0	0	1	0	1
Total	0	1	15	15	18	49

SOURCE: Calculated by HASE staff from HAO Monthly Program Reports for five year period ending December 31, 1979.

NOTE: See Table C-1.

Table C-9

DATA ON MAJOR VERIFICATION ERRORS FOR PROGRAM YEARS 2-4: BROWN COUNTY ENROLLMENTS

A. Distribution of Total Major Errors Based on Distributions in Sample of Errors

Client Group	Sample of Errors	Distribution to HAO Monthly Program Report Total				
		Verification Code				
		A	B	C	D	Total
Nonelderly renters	108	0	0	85	20	105
Elderly renters	15	0	0	15	0	15
Nonelderly owners	32	1	0	26	4	31
Elderly owners	4	0	0	4	0	4
Other	2	0	0	2	0	2
Total	161	1	0	132	24	157

B. Average Annual Error Per Case With a Major Error ($)

Client Group	Verification Code				Total
	A	B	C	D	
Gross Error					
Nonelderly renters	—	—	305.49	409.00	325.21
Elderly renters	—	—	137.40	—	137.40
Nonelderly owners	15.00	—	338.30	575.50	358.48
Elderly owners	—	—	455.50	—	455.50
Other	—	—	320.00	—	320.00
Total	15.00	—	297.84	436.75	317.09
Net Error					
Nonelderly renters	—	—	40.99	346.90	99.26
Elderly renters	—	—	17.13	—	17.13
Nonelderly owners	15.00	—	96.07	575.50	155.32
Elderly owners	—	—	-103.50	—	-103.50
Other	—	—	320.00	—	320.00
Total	15.00	—	47.89	385.00	100.13

SOURCE: Sample data and average error per client group and verification code are calculated from a sample of errors; total errors are calculated from HAO Monthly Program Reports.

Table C-10

DATA ON MAJOR VERIFICATION ERRORS FOR PROGRAM YEARS 2-4: ST. JOSEPH COUNTY ENROLLMENTS

A. Distribution of Total Major Errors Based on Distributions in Sample of Errors

Client Group	Sample of Errors	Distribution to HAO Monthly Program Report Total				
		Verification Code				
		A	B	C	D	Total
Nonelderly renters	119	4	1	86	23	114
Elderly renters	8	1	—	6	1	8
Nonelderly owners	54	1	1	39	10	52
Elderly owners	23	1	2	16	3	22
Other	6	—	—	6	—	6
Total	210	7	4	153	37	201

B. Average Annual Error Per Case with a Major Error ($)

Client Group	Verification Code				
	A	B	C	D	Total
Gross Error					
Nonelderly renters	252.00	242.00	429.88	351.29	406.13
Elderly renters	142.00	—	158.83	558.00	206.62
Nonelderly owners	174.00	271.00	378.00	370.36	363.28
Elderly owners	178.00	171.50	274.82	574.67	301.92
Other	—	—	250.67	—	250.67
Total	214.57	214.00	382.78	380.14	373.08
Net Error					
Nonelderly renters	252.00	242.00	221.72	201.88	218.96
Elderly renters	142.00	—	38.50	558.00	116.38
Nonelderly owners	174.00	271.00	237.07	212.36	227.20
Elderly owners	178.00	171.50	231.53	574.67	270.43
Other	—	—	173.67	—	173.67
Total	214.57	214.00	217.59	244.56	223.38

SOURCE: Sample data and average error per client group and verification code are calculated from a sample of errors; total errors are calculated from HAO Monthly Program Reports.

Table C-11

DATA ON MAJOR VERIFICATION ERRORS FOR PROGRAM YEARS 2-4: BROWN COUNTY ANNUAL RECERTIFICATIONS

A. Distribution of Total Major Errors Based on Distributions in Sample of Errors

Client Group	Sample of Errors	Distribution to HAO Monthly Program Report Total				
		Verification Code				
		A	B	C	D	Total
Nonelderly renters	72	2	—	65	9	76
Elderly renters	22	—	—	22	1	23
Nonelderly owners	29	1	2	17	11	31
Elderly owners	21	—	1	21	—	22
Other	2	—	—	2	—	2
Total	146	3	3	127	21	154

B. Average Annual Error Per Case with a Major Error ($)

Client Group	Verification Code				Total
	A	B	C	D	
Gross Error					
Nonelderly renters	378.00	—	276.06	197.63	269.45
Elderly renters	—	—	136.95	27.00	132.17
Nonelderly owners	81.00	120.50	261.56	325.50	269.32
Elderly owners	—	12.00	110.30	—	105.83
Other	—	—	200.50	—	200.50
Total	279.00-	84.33	221.42	256.48	224.65
Net Error					
Nonelderly renters	378.00	—	169.79	52.63	161.40
Elderly renters	—	—	14.48	27.00	15.02
Nonelderly owners	-81.00	120.50	149.69	265.30	181.39
Elderly owners	—	-12.00	-.70	—	-1.21
Other	—	—	200.50	—	200.50
Total	225.00	76.33	112.49	162.81	120.84

SOURCE: Sample data and average error per client group and verification code are calculated from a sample of errors; total errors are calculated from HAO Monthly Program Reports.

Table C-12

DATA ON MAJOR VERIFICATION ERRORS FOR PROGRAM YEARS 2-4: ST. JOSEPH COUNTY ANNUAL RECERTIFICATIONS

A. Distribution of Total Major Errors Based on Distributions in Sample of Errors

Client Group	Sample of Errors	Distribution to HAO Monthly Program Report Total				
		Verification Code				
		A	B	C	D	Total
Nonelderly renters	42	6	2	29	8	45
Elderly renters	4	—	—	4	—	4
Nonelderly owners	25	2	5	16	3	26
Elderly owners	18	2	4	12	1	19
Other	3	1	—	2	—	3
Total	92	11	11	63	12	97

B. Average Annual Error Per Case with a Major Error ($)

Client Group	Verification Code				Total
	A	B	C	D	
Gross Error					
Nonelderly renters	179.67	220.50	303.41	164.00	258.44
Elderly renters	—	—	174.75	—	174.75
Nonelderly owners	311.00	338.60	255.67	815.00	340.41
Elderly owners	443.50	29.00	251.45	423.00	233.86
Other	484.00	—	312.50	—	369.67
Total	279.18	204.55	273.08	348.33	277.65
Net Error					
Nonelderly renters	179.67	220.50	198.07	96.00	174.20
Elderly renters	—	—	113.25	—	113.25
Nonelderly owners	311.00	338.60	196.60	815.00	304.06
Elderly owners	443.50	29.00	215.09	423.00	210.90
Other	484.00	—	181.50	—	282.33
Total	279.18	204.55	195.05	287.00	217.03

SOURCE: Sample data and average error per client group and verification code are calculated from a sample of errors; total errors are calculated from HAO Monthly Program Reports.

Table C-13

DATA ON MAJOR VERIFICATION ERRORS FOR PROGRAM YEARS 2-4: BROWN COUNTY SEMIANNUAL RECERTIFICATIONS

A. Distribution of Total Major Errors Based on Distributions in Sample of Errors

Client Group	Sample of Errors	Distribution to HAO Monthly Program Report Total				
		Verification Code				
		A	B	C	D	Total
Nonelderly renters	28	1	1	18	11	31
Elderly renters	2	0	0	2	0	2
Nonelderly owners	8	0	2	5	2	9
Elderly owners	1	0	0	1	0	1
Other	2	0	1	1	0	2
Total	41	1	4	27	13	45

B. Average Annual Error Per Case With a Major Error ($)

Client Group	Verification Code				Total
	A	B	C	D	
Gross Error					
Nonelderly renters	29.00	127.00	376.81	403.00	366.83
Elderly renters	—	—	137.00	—	137.00
Nonelderly owners	—	242.50	246.75	294.00	256.31
Elderly owners	—	—	262.00	—	262.00
Other	—	179.00	370.00	—	274.50
Total	29.00	197.75	325.38	386.23	318.93
Net Error					
Nonelderly renters	29.00	127.00	299.81	403.00	322.12
Elderly renters	—	—	137.00	—	137.00
Nonelderly owners	—	242.50	246.75	83.00	209.42
Elderly owners	—	—	262.00	—	262.00
Other	—	-179.00	370.00	—	95.50
Total	29.00	108.25	274.05	353.77	274.77

SOURCE: Sample data and average error per client group and verification code are calculated from a sample of errors; total errors are calculated from HAO Monthly Program Reports.

Table C-14

DATA ON MAJOR VERIFICATION ERRORS FOR PROGRAM YEARS 2-4: ST. JOSEPH COUNTY SEMIANNUAL RECERTIFICATIONS

A. Distribution of Total Major Errors Based on Distributions in Sample of Errors

Client Group	Sample of Errors	Distribution to HAO Monthly Program Report Total				
		Verification Code				
		A	B	C	D	Total
Nonelderly renters	17	4	2	11	0	17
Elderly renters	1	0	0	1	0	1
Nonelderly owners	11	3	2	5	1	11
Elderly owners	3	0	0	3	0	3
Other	2	0	0	2	0	2
Total	34	7	4	22	1	34

B. Average Annual Error Per Case With a Major Error ($)

Client Group	Verification Code				
	A	B	C	D	Total
Gross Error					
Nonelderly renters	688.00	171.00	377.67	—	426.37
Elderly renters	—	—	-327.00	—	-327.00
Nonelderly owners	688.00	237.50	441.83	1,098.00	260.59
Elderly owners	—	—	297.67	—	297.67
Other	—	—	319.00	—	319.00
Total	688.00	204.25	373.71	1,098.00	439.78
Net Error					
Nonelderly renters	-104.67	171.00	285.33	—	180.11
Elderly renters	—	—	327.00	—	327.00
Nonelderly owners	-104.67	237.50	321.50	1,098.00	260.59
Elderly owners	—	—	155.67	—	155.67
Other	—	—	319.00	—	319.00
Total	-104.67	204.25	251.10	1,098.00	197.25

SOURCE: Sample data and avarage error per client group and verification code are calculated from a sample of errors; total errors are calculated from HAO Monthly Program Reports.

Table C-15

DATA ON MAJOR VERIFICATION ERRORS FOR PROGRAM YEARS 2-4: BROWN COUNTY SPECIAL RECERTIFICATIONS

A. Distribution of Total Major Errors Based on Distributions in Sample of Errors

Client Group	Sample of Errors	Distribution to HAO Monthly Program Report Total				
		Verification Code				
		A	B	C	D	Total
Nonelderly Renters	12	1	0	9	3	13
Elderly renters	1	0	0	1	0	1
Nonelderly owners	2	0	0	1	1	2
Elderly owners	0	0	0	0	0	0
Other	1	0	0	0	1	1
Total	16	1	1	11	5	17

B. Average Annual Error Per Case With a Major Error ($)

Client Group	Verification Code				
	A	B	C	D	Total
Gross Error					
Nonelderly renters	458.00	—	713.56	139.50	561.42
Elderly renters	—	—	302.00	—	302.00
Nonelderly owners	—	—	227.00	220.00	223.50
Elderly owners	—	—	—	—	—
Other	—	—	—	149.00	149.00
Total	458.00	—	631.91	157.50	482.68
Net Error					
Nonelderly renters	458.00	—	436.89	139.50	369.88
Elderly renters	—	—	302.00	—	302.00
Nonelderly owners	—	—	227.00	220.00	223.50
Elderly owners	—	—	—	—	—
Other	—	—	—	149.00	149.00
Total	458.00	—	405.55	157.50	318.68

SOURCE: Sample data and average error per client group and verification code are calculated from a sample of errors; total errors are calculated from HAO Monthly Program Reports.

Table C-16

DATA ON MAJOR VERIFICATION ERRORS FOR PROGRAM YEARS 2-4: ST. JOSEPH COUNTY SPECIAL RECERTIFICATIONS

A. Distribution of Total Major Errors Based on Distributions in Sample of Errors

Client Group	Sample of Errors	Distribution to HAO Monthly Program Report Total				
		Verification Code				
		A	B	C	D	Total
Nonelderly renters	16	1	0	15	1	17
Elderly renters	0	0	0	0	0	0
Nonelderly owners	9	1	0	8	0	9
Elderly owners	2	0	0	2	0	2
Other	3	0	0	3	0	3
Total	30	2	0	28	1	31

B. Average Annual Error Per Case With a Major Error ($)

Client Group	Verification Code				
	A	B	C	D	Total
Gross Error					
Nonelderly renters	142.00	—	510.36	635.00	496.02
Elderly renters	—	—	—	—	—
Nonelderly owners	110.00	—	743.88	—	673.44
Elderly owners	—	—	507.00	—	507.00
Other	—	—	371.33	—	371.33
Total	126.00	—	561.94	635.00	536.17
Net Error					
Nonelderly renters	142.00	—	260.20	635.00	275.29
Elderly renters	—	—	—	—	—
Nonelderly owners	110.00	—	606.88	—	551.67
Elderly owners	—	—	507.00	—	507.00
Other	—	—	371.33	—	371.33
Total	126.00	—	388.79	635.00	379.77

SOURCE: Sample data and average error per client group and verification code are calculated from a sample of errors; total errors are calculated from HAO Monthly Program Reports.

Table C-17

DATA ON MINOR VERIFICATION ERRORS FOR PROGRAM YEARS 2-4: BROWN COUNTY ENROLLMENTS

A. Distribution of Total Minor Errors Based on Distributions in Sample of Errors

Client Group	Sample of Errors	Distribution to HAO Monthly Program Report Total				
		Verification Code				
		A	B	C	D	Total
Nonelderly renters	112	8	21	349	41	419
Elderly renters	56	0	0	308	3	311
Nonelderly owners	52	3	9	122	27	161
Elderly owners	31	1	6	160	3	170
Other	3	0	0	18	0	18
Total	254	12	36	957	74	1,079

B. Average Annual Error Per Case With a Minor Error ($)

Client Group	Verification Code				
	A	B	C	D	Total
Gross Error					
Nonelderly renters	10.60	26.29	35.83	29.64	34.29
Edlerly renters	--	--	16.72	.50	16.57
Nonelderly owners	68.50	26.00	30.03	19.95	28.86
Elderly owners	--	--	15.36	1.50	14.44
Other	--	--	21.33	--	21.33
Total	23.75	21.83	25.23	23.86	25.00
Net Error					
Nonelderly renters	3.00	-17.14	17.18	10.22	14.52
Elderly renters	--	--	4.55	-.50	4.50
Nonelderly owners	-10.50	-12.67	24.31	17.83	20.51
Elderly owners	--	--	4.52	1.50	4.27
Other	--	--	14.00	--	14.00
Total	-.75	-13.17	11.84	12.18	10.89

SOURCE: Sample data and average error per client group and verification code are calculated from a sample of errors; total errors are calculated from HAO Monthly Program Reports.

Table C-18

DATA ON MINOR VERIFICATION ERRORS FOR PROGRAM YEARS 2-4: BROWN COUNTY ANNUAL RECERTIFICATIONS

A. Distribution of Total Minor Errors Based on Distributions in Sample of Errors

Client Group	Sample of Errors	Distribution to HAO Monthly Program Report Total				
		Verification Code				
		A	B	C	D	Total
Nonelderly renters	78	2	18	412	48	480
Elderly renters	60	5	8	690	11	714
Nonelderly owners	48	12	11	148	31	202
Elderly owners	40	7	11	378	6	402
Other	2	0	0	16	1	17
Total	228	26	48	1,644	97	1,815

B. Average Annual Error Per Case With a Minor Error ($)

Client Group	Verification Code				
	A	B	C	D	Total
Gross Error					
Nonelderly renters	0	9.43	19.52	36.89	20.79
Elderly renters	3.33	4.83	17.19	26.67	17.10
Nonelderly owners	30.17	18.63	21.89	15.96	21.32
Elderly owners	18.00	5.88	14.61	5.00	14.30
Other	--	--	1.00	12.00	1.65
Total	19.52	9.91	17.44	26.75	17.77
Net Error					
Nonelderly renters	0	4.71	10.64	10.58	10.34
Elderly renters	-1.33	1.17	3.52	22.44	3.76
Nonelderly owners	12.14	14.13	20.11	5.38	17.09
Elderly owners	14.50	5.63	3.91	4.60	4.15
Other	--	--	--	12.00	1.65
Total	9.25	6.41	6.86	9.94	7.04

SOURCE: Sample data and average error per client group and verification code are calculated from a sample of errors; total errors are calculated from HAO Monthly Program Reports.

Table C-19

DATA ON MINOR VERIFICATION ERRORS FOR PROGRAM YEARS 2-4: BROWN COUNTY SEMIANNUAL RECERTIFICATIONS

A. Distribution of Total Minor Errors Based on Distributions in Sample of Errors

Client Group	Sample of Errors	Distribution to HAO Monthly Program Report Total				
		Verification Code				
		A	B	C	D	Total
Nonelderly renters	38	7	7	34	17	65
Elderly renters	16	2	4	10	11	27
Nonelderly owners	16	2	6	17	3	28
Elderly owners	4	4	0	4	0	8
Other	3	0	0	5	0	5
Total	77	15	17	70	31	133

B. Average Annual Error Per Case With a Minor Error ($)

Client Group	Verification Code				Total
	A	B	C	D	
Gross Error					
Nonelderly renters	52.67	41.50	36.80	29.45	36.99
Elderly renters	70.00	18.67	19.10	52.50	36.49
Nonelderly owners	18.00	32.00	9.17	38.00	17.66
Elderly owners	7.50	--	5.00	--	6.39
Other	--	--	39.67	--	39.67
Total	37.29	33.26	26.06	38.37	31.11
Net Error					
Nonelderly renters	-52.67	16.50	11.40	6.55	4.40
Elderly renters	70.00	18.57	4.50	-13.50	4.45
Nonelderly owners	18.00	32.00	3.83	38.00	14.41
Elderly owners	-6.50	--	5.00	--	-1.40
Other	--	--	39.67	--	39.67
Total	-11.86	22.15	10.23	2.68	7.50

SOURCE: Sample data and average error per client group and verification code are calculated from a sample of errors; total errors are calculated from HAO Monthly Program Reports.

Table C-20

DATA ON MINOR VERIFICATION ERRORS FOR PROGRAM YEARS 2-4: BROWN COUNTY SPECIAL RECERTIFICATIONS

A. Distribution of Total Minor Errors Based on Distributions in Sample of Errors

Client Group	Sample of Errors	Distribution to HAO Monthly Program Report Total				
		Verification Code				
		A	B	C	D	Total
Nonelderly renters	27	1	1	24	3	29
Elderly renters	1	0	0	1	0	1
Nonelderly owners	9	1	1	8	0	10
Elderly owners	4	0	0	5	0	5
Other	6	0	0	7	0	7
Total	47	2	2	45	3	52

B. Average Annual Error Per Case With a Minor Error ($)

Client Group	Verification Code				Total
	A	B	C	D	
Gross Error					
Nonelderly renters	12.50	18.00	49.95	53.33	46.56
Elderly renters	--	--	0	--	0
Nonelderly owners	19.00	63.00	18.71	--	26.97
Elderly owners	--	--	29.00	--	29.00
Other	--	--	26.83	--	26.83
Total	14.68	40.50	36.96	53.33	36.09
Net Error					
Nonelderly renters	8.50	18.00	-15.29	-31.33	-13.65
Elderly renters	--	--	0	--	0
Nonelderly owners	-19.00	63.00	-1.86	--	9.15
Elderly owners	--	--	19.50	--	19.50
Other	--	--	26.50	--	26.83
Total	-5.25	40.50	-2.45	-31.33	-2.39

SOURCE: Sample data and average error per client group and verification code are calculated from a sample of errors; total errors are calculated from HAO Monthly Program Reports.

REFERENCES

Allen, Jodie T., "Designing Income Maintenance Systems: The Income Accounting Problem," *Studies in Public Welfare*, Paper No. 5 (Part 3), Subcommittee on Fiscal Policy of the Joint Economic Committee, Congress of the United States, March 12, 1973.

Bendick, Marc, Jr., Abe Lavine, and Toby H. Campbell, *The Anatomy of AFDC Errors*, The Urban Institute, 5902-1, Washington, D.C., April 1978.

Bradbury, Katherine L. and Anthony Downs (eds.), *Do Housing Allowances Work?*, The Brookings Institution, Washington, D.C., 1981.

Campbell, Toby H. and Marc Bendick, Jr., *A Public Assistance Data Book*, The Urban Institute, 5902-02, Washington, D.C., October 1977.

Comptroller General of the United States, *Fraud in Government Programs:--How Extensive Is It?--How Can It Be Controlled?*, Vol. 1, AFMD-81-57, Washington, D.C., May 7, 1981.

Comptroller General of the United States, *Section 8 Subsidized Housing--Some Observations on Its High Rents, Costs, and Inequities*, CED-80-59, Washington, D.C., June 6, 1980.

Crespi, Irving, Richard L. Kaluzny, and Billy Tidwell, *Final Report: A Survey of Participants in the Denver Monthly Reporting Experiment*, Mathematica Policy Research, Princeton, New Jersey, June 30, 1978.

Dickson, Donald E., *Certification: Determining Eligibility and Setting Payment Levels in the Administrative Agency Experiment*, Abt Associates, Inc., Cambridge, Massachusetts, March 4, 1977.

Drury, Margaret, Olsen Lee, Michael Springer, and Lorene Yap, *Lower Income Housing Assistance Program (Section 8): Nationwide Evaluation of the Existing Housing Program*, Office of Policy Development and Research, U.S. Department of Housing and Urban Development, Washington, D.C., November 1978.

Ellickson, Phyllis L., and David E. Kanouse, *Public Perceptions of Housing Allowances: The First Two Years*, The Rand Corporation, R-2259-HUD, September 1979.

Fourth Annual Report of the Housing Assistance Supply Experiment, The Rand Corporation, R-2302-HUD, May 1978.

Gallup, George Horace, *The Gallop Poll: Public Opinion, 1972-1977*, Scholarly Resources, Inc., Wilmington, Delaware, 1978.

Griffiths, Andrew S., and Edward Callahan, *Income Verification in Subsidized Housing Programs: The Utility of Techniques from Welfare Programs*, Urban Systems Research and Engineering, Inc., Cambridge, Massachusetts, August 1980.

Hamilton, William L., *A Social Experiment in Program Administration: The Housing Allowance Administrative Agency Experiment*, Abt Books, Cambridge, Massachusetts, 1979.

Hamilton, William L., David W. Budding, and W. L. Holshouser, Jr., *Administrative Procedures in a Housing Allowance Program: The Administrative Agency Experiment*, Abt Associates, Inc., Cambridge, Massachusetts, March 28, 1977.

Harrar, William S., *The Accuracy of Self-Administered Reporting, Rural Income Maintenance Experiment Final Report, Vol. II*, Institute for Research on Poverty, University of Wisconsin, Madison, Wisconsin, 1976.

Hershey, Alan M., and Robert G. Williams, "Improving the Administration of Public Welfare Through Monthly Reporting," *The MPR Policy Newsletter*, Mathematica Policy Research, Princeton, New Jersey, Spring 1979.

Housing and Development Reporter, The Bureau of National Affairs, Inc., Volume 8, Number 50, May 11, 1981.

Katagiri, Iao, and G. Thomas Kingsley (eds.), *The Housing Allowance Office Handbook*, The Rand Corporation, N-1491-HUD, July 1980.

Kershaw, David N., "Administrative Issues in Establishing and Operating a National Cash Assistance Program," Studies in Public Welfare, Paper No. 5 (Part 3), Subcommittee on Fiscal Policy of the Joint Economic Committee, Congress of the United States, March 12, 1973.

Kershaw, David, and Jerilyn Fair, *The New Jersey Income Maintenance Experiment, Vol. I: Operations, Surveys and Administration*, Institute for Research on Poverty Monograph Series, Academic Press, 1976.

Kershaw, David N., and Robertson C. Williams, Jr., "Administrative Lessons of the Experimental Housing Allowance Programs," in Katherine L. Bradbury and Anthony Downs, *Do Housing Allowances Work?*, The Brookings Institution, Washington, D.C., forthcoming.

Kingsley, G. Thomas, *Allowance Program Administration: Interim Findings*, The Rand Corporation, N-1277-HUD, December 1979.

Kingsley, G. Thomas, Sheila Nataraj Kirby, and W. Eugene Rizor, *Housing Allowance Program Administration: Findings from the Housing Assistance Supply Experiment*, The Rand Corporation, N-1846-HUD, May 1982.

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, and Priscilla M. Schlegel, *Housing Allowances and Administrative Efficiency*, The Rand Corporation, N-1741-HUD, May 1982.

Lowry, Ira S. (ed.), *Experimenting with Housing Allowances: The Final Report of the Housing Assistance Supply Experiment*, Oelgeschlager, Gunn & Hain, Inc., Cambridge, Massachusetts, forthcoming.

Maloy, Charles M., J. Patrick Madden, David Budding, and William L. Hamilton, *Administrative Costs in a Housing Allowance Program: Two-Year Costs in the Administrative Agency Experiment*, Abt Associates, Inc., February 1, 1977.

Mendeloff, John, "Welfare Procedures and Error Rates: An Alternative Perspective," *Policy Analysis* 3 (Summer 1977).

McCarthy, Kevin F., *The Household Life Cycle and Housing Choices,* The Rand Corporation, P-5565, January 1976.

Rydell, C. Peter, John E. Mulford, and Lawrence Helbers, *Price Increases Caused by Housing Assistance Programs*, The Rand Corporation, R-2677-HUD, October 1980.

Sixth Annual Report of the Housing Assistance Supply Experiment, The Rand Corporation, R-2544-HUD, May 1980.

Struyk, Raymond J., and Marc Bendick, Jr. (eds.), *Housing Vouchers for the Poor: Lessons from a National Experiment*, The Urban Institute Press, Washington, D.C., 1981.

Stucker, Jennifer, L., "The Importance of Income Verification in the Section 8 Housing Assistance Payments Program," *Occasional Papers in Housing and Community Affairs, Vol. 6*, Office of Policy Development and Research, U.S. Department of Housing and Urban Development, Washington, D.C., December 1979.

Tebbets, 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 Health, Education, and Welfare, *Use of Error Profiles and Management Controls for Improving Program Operations: West Virginia*, Social Security Administration, Assistance Payments Administration, Washington, D.C., SSA 77-21231, May 1975.

U.S. Department of Housing and Urban Development, *Public Housing Agency Administrative Practices Handbook for the Section 8 Existing Housing Program*, Handbook 7420.7, Washington, D.C., November 1979.

-----, *Section 8 Housing Assistance Payments Program for Existing Housing and Moderate Rehabilitation Processing*, Handbook 7420.3 REV-2 CHG-4, Washington, D.C., January 1981.

-----, *Report on Internal Audit of Section 8 Leased Housing Programs Existing Units*, Office of the Inspector General, Washington, D.C., CO-99, June 23, 1978.

-----, *Special Operational Survey of the Section 8 Program*, Office of the Inspector General, Washington, D.C., July 16, 1979.

-----, *Experimental Housing Allowance Program Conclusions: The 1980 Report*, Office of Policy Development and Research, Division of Housing Assistance Research, Washington, D.C., February 1980.

-----, *Experimental Housing Allowance Program: A 1979 Report of Findings*, Office of Policy Development and Research, Washington, D.C., April 1979.

Wang, Ann W., *Codebook for the HAO Client Characteristics File, Site I, Year 5*, The Rand Corporation, N-1417-HUD, October 1980.

-----, *Codebook for the HAO Recertification Characteristics File, Site I, Year 5*, The Rand Corporation, N-1421-HUD, March 1981.

-----, *Codebook for the HAO Client Characteristics File, Site II, Year 5*, The Rand Corporation, N-1418-HUD, September 1981.

-----, *Codebook for the HAO Recertification Characteristics File, Site II, Year 5*, The Rand Corporation, N-1422-HUD, September 1981.

Williams, Robert G., David L. Horner, Alan M. Hershey, and Nancy L. Graham (eds.), *Colorado Monthly Reporting Experiment and Pretest: First Year Research Results*, Mathematica Policy Research Inc., Denver, Colorado, October 1979.

Zais, James P., and John Trutko, *Integrated Analysis of Administration of Housing Allowance Programs*, The Urban Institute, 216-31, Washington, D.C., September 1976.

Zais, James P., C. Reid Melton, and Mark Berkman, *A Framework for the Analysis of Income Accounting Systems in EHAP*, The Urban Institute, 216-17, Washington, D.C., July 7, 1975.

Zais, James P., "Administering Housing Allowances," in Raymond J. Struyk and Mark Bendick, Jr. (eds.), *Housing Vouchers for the Poor: Lessons from a National Experiment*, The Urban Institute Press, Washington, D.C., 1981.