SECTION 8

HOUSING

PHA ADMINISTRATIVE FUNCTIONS AND FEES

WESTAT RESEARCH

Contract #H-2553

ADMINISTRATIVE FUNCTIONS AND FEES: AN ANALYSIS

Submitted to:

Office of Policy Development and Research
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Submitted by:

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PREFACE

This report was prepared for the Office of Policy Development and Research, U. S. Department of Housing and Urban Development (HUD), under Contract No. H-2553. It is part of a broad-based research effort to assess Section 8 program operations and performance; and to identify, as appropriate, program improvements. The study of the Section 8 Housing Assistance program covers both the Section 8 Existing and the New Construction program components. The content of this report is an analysis of the Administrative Functions and Fees in the Section 8 Housing program.

The Section 8 program, which was enacted in the Housing and Community Development Act of 1974, is intended to provide assistance to lower income families to enable them to afford decent, safe, and sanitary housing and is currently HUD's major rental housing subsidy program. Normally, to be eligible for assistance, a family's income cannot exceed 80 percent of the median incomes for the area as determined by HUD. Income-eligible families must pay 15-25 percent (depending on their income and family size) of their adjusted gross income for housing, including utilities; and the Section 8 program provides the difference between the recipients' contributions and the rents for the units, as long as the rents are reasonable and do not exceed the "Fair Market Rent" maximums established by HUD. As recipients' incomes and rents change, the subsidies are periodically adjusted.

The Existing Housing program is normally administered through local public bodies or agencies (PHAs) and, in some instances, state housing agencies under 5-year contracts with HUD. The New Construction program can be administered through PHAs, state housing agencies, or directly by contract with HUD; assistance contracts are for 20 years except that public housing sponsors are eligible for 40-year contracts. The terms, conditions, and extent of assistance provided by HUD are detailed in Annual Contributions Contracts (ACCs).

In the Existing Housing program, income-eligible families are issued "Certificates of Eligibility" (normally in effect for 60 days), and in order to receive assistance, they must secure housing units that meet the program's housing condition standards and rental cost limitations and negotiate acceptable lease agreements with the owners of the units. Families can attempt to qualify for assistance in the units they currently occupy or they may move to other units. Although the general policies and

eligibility rules are similar in the Existing and New Construction programs, the New Construction program differs from the Existing Housing program in a number of features, the most important of which is that the subsidies are linked to specific housing units, in particular newly constructed projects, and families must occupy those units to receive Section 8 assistance.

The Department of Housing and Urban Development awarded three contracts for the Section 8 evaluation, each covering a different sector of the country. Westat's sector for analysis is Sector C, which is that portion of the country west of the Mississippi River and includes HUD Regions VI, VII, VIII, IX, and X. Westat's responsibilities under the contract are being carried out in affiliation with three subcontractors --Real Estate Research Corporation, Peat, Marwick, Mitchell & Co., and Building Technology, Inc.

The contract commenced June 30, 1976. The months of July, August, and September were spent in developing a work plan for the evaluation and designing the evaluation plans and data collection instruments. The field work began October 21 and was substantially completed by the end of November 1976.

The research program involved gathering data from a variety of sources. The respondent groups and completed number of interviews in the survey included:

Respondent Group	Number of Completed Interviews or Organizations Interviewed	Definition of Respondent Groups
1. Public Housing Agencies (PHAs)	30	Any state, county, municipality, or other governmental entity or public body which is authorized to assist in the development or operation of housing for low-income families and is participating in the Section 8 Existing Housing program.

Respondent Group	Number of Completed Interviews or Organizations Interviewed	Definition of Respondent Groups
2. Nonparticipating Public Housing Agencies	5	Any state, county, municipality, or other governmental entity or public body which is authorized to assist in the development or operation of housing for low-income families and is not participating in the Section 8 program.
3. Recipients	428	Eligible families being assisted financially through the Section 8 program.
4. Nonrecipients	125	Eligible familes not being assisted financially through Section 8 but who had been issued certificates of eligibility for 60 days or more but had not found a unit to qualify for benefits.
5. Participating Landlords	198	Any person or entity having the legal right to lease or sublease existing housing who had tenants being assisted through the Section 8 program.
6. Nonparticipating Landlords	25	Any person or entity having the legal right to lease or sublease housing who had been contacted by certificate holders or PHAs about participating in the Section 8 program but refused to do so.
7. New Construction Sponsors (Active and Inactive)	37	Any person or entity who had submitted an application to sponsor a New Construction project under the Section 8 New Construction Housing Program.

Respondent Group	Number of Completed Interviews or Organizations Interviewed	Definition of Respondent Groups
8. HUD Area Offices	13	Appropriate persons involved in Section 8 in the HUD field offices.
9. State Housing Agencies	3	Appropriate persons from State Housing Finance Agencies of the Section 8 program.

The survey instruments used by the three research contractors included a series of identical core questions, developed by the Urban Institute, which will be used as the basis of the Urban Institute's national analysis of the Section 8 program.

Westat also collected noninterview data on recipients, nonrecipients, certificate holders, and applicants from the files of the sample of PHAs. Major secondary sources included: 1976 Current Population Survey (CPS), 1974 Annual Housing Survey, 1970 Census data, HUD Section 8 Management Information System (MIS), National Association of Housing and Redevelopment Officials (NAHRO) 1976 Directory, Bureau of Labor Statistics' Consumer Price Index, and the F.W. Dodge Corporation Report on New Construction Costs.

The base unit for most of the analysis was 30 PHAs selected by HUD and the Urban Institute. The recipients, nonrecipients, landlords, and area office staff who were interviewed were linked to the 30 PHAs. The sample selection of respondent groups is discussed in detail within each of the relevant reports.

The limitations of sample size and sampling procedures place a constraint on the reliability of results from this study. The accuracy associated with reported statistics is discussed in Section 2 and further described in Appendix A.

The focus of this research program is on the Section 8 Existing Housing program but there is one report specifically on New Construction. The reports that have been prepared under this contract include:

1. Summary Report on Section 8
2. Jurisdiction and Sponsor Participation
3. Recipient and Nonrecipient Analysis
4. Landlord Participation
5. PHA Administrative Costs and Functions
6. Fair Market Rents in Existing Housing
7. New Construction
8. Housing Standards

A research project of the magnitude of the Section 8 evaluation is a major undertaking involving the combined efforts of many individuals and organizations. It is impossible to identify all of the individuals who helped in the planning for the study and the collection of data; but Westat and its subcontractors would like particularly to single out and thank the staffs of the HUD Area Offices and the 30 PHAs in the study sample, and Harold Williams, the HUD GTR for the study, for their cooperation, assistance, and enthusiastic support of the project.

With the exception of the Appendix, the remainder of this report was prepared by Peat, Marwick, Mitchell & Co. Westat reviewed and edited the text.

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1. INTRODUCTION AND EXECUTIVE SUMMARY

1.1 Overview

Local sponsoring agencies and organizations [i.e., the Public Housing Agencies (PHAs)] that operate Section 8 programs are required to carry out a series of key administrative functions that support the program:

- outreach to potential recipients and landlords;
- certification of eligibility;
- client services;
- inspection of units;
- subsidy payments to landlords; and
- program management.

As part of the overall program evaluation, the U.S. Department of Housing and Urban Development (HUD) is interested in how the required functions are carried out, their cost, and what improvements in the required support functions can be made to develop maximum program efficiency.

The objectives of the program evaluation component encompassed:

- documentation of the existing level of services of each administrative function at a sampled PHA in Sector C;
- analysis of the costs of providing these services, both in absolute and in per unit terms; and
- measurement of the relative effectiveness of alternative strategies for performing administrative functions.

The general procedure used in carrying out the administrative analysis included:

- cataloging the methods used and costs incurred by sponsor agencies in carrying out their required preliminary (start-up) and administrative (maintenance) functions and documenting the results and associated costs of these methods;

- collecting data reflecting actual expenditures and services by functional area (or general administrative category) at each sponsor;

- evaluating the relationships between these sponsor preliminary and administrative costs and the respective preliminary and administrative fees paid by HUD;

- identifying, on the basis of the level and use of the fees, any savings for HUD that could be generated by modifications to the regulations; and

- identifying any improvements in provision of administrative services that could be generated by changes to HUD regulations or procedures.

1.2 Primary Research Issues

A significant cost of the operations and performance of the Section 8 Housing Assistance Payments Program is the sponsor administrative costs paid by HUD. These costs fall into two categories:

- the preliminary fee: an amount paid once per unit to the sponsor agency on the basis of a budget estimate submitted to HUD. The specific agency functions which the preliminary fee is designed to reimburse are those necessary to implement the program in the locality and to bring allocated units to the lease-up point.

- the administrative fee: a continuing fee of the greater of 8.5 percent of the Fair Market Rent (FMR) for a two-bedroom, nonelevator unit in the locality or of $15.00 for each month a Section 8 unit is leased. This fee is

designed to reimburse project sponsors for such managerial functions as outreach activities to replace recipient attrition, eligibility redetermination, technical assistance to clients, and housing reinspections.

Because of the decentralized nature of the program, the costs incurred in these administrative functions are substantial. In 1976 the costs were $45 million for the preliminary fee expense and $63 million in continuing administrative fees, as indicated in the RFP. However, the bases on which these two fees are calculated do not reflect a number of variables that directly influence the actual costs incurred. Variables not normally considered include geographic location of the client community, types of services provided, size of project, geographic dispersion, number of units, and the addition of Section 8 administrative functions to similar functions normally carried out. Consequently, to exercise an appropriate level of control on the costs involved, we had to first develop a financial data base that permitted analysis on a comparable basis of the scope, diversity, and magnitude of the administrative costs by categories and amounts.

Our work plan responded to a series of specific considerations that affected the analysis of the operation of the program in the localities. These considerations included:

- accounting policies and procedures. Although the HUD standard accounting guide and the Section 8 regulations provide a financial structure for the program, the accounting records at each sponsor agency differ substantially with respect to procedures actually used, the chart of accounts, definition of each account code classification, and the allocation of indirect costs. This is particularly important when Section 8 sponsoring agencies perform activities for other programs (e.g., public housing, Section 23, and renewal) that are similar or identical and that require the same kinds of skills and interface with the same client and housing supplier groups.

- definitions of administration functions. In addition to differing accounting systems, there were some differences in the definitions (and therefore accounting) of the administrative services provided by project sponsors. For example, functions such as "outreach,"

"eligibility redetermination," "assistance to clients," and "housing inspections" were sometimes performed within different organizational frameworks in differing locations. To compare the accounting treatment and overall cost of each service, it was necessary to develop standard definitions of services. Using these definitions, we found that some revised cost allocation assignments were necessary.

- appropriateness of FMR and administrative fees. The administrative fee actually paid is the greater of a fixed percentage (8.5 percent) of the FMR for a two-bedroom unit or $15.00; it therefore varies by geographic area. The costs of the services to be covered by the administrative fee can vary, however, depending on the delivery mechanism, project type, centralization services, economies of scale, and maturity of the program. The administrative fee does not include factors reflecting these administrative service cost impacts. Consequently, our research reviewed the relationships between the service delivery mechanisms, economic and financial factors inherent in each project location, and the resulting levels of costs.

On the basis of the outputs of this research, alternative methodologies to calculate fee levels were developed and tested, using the data collected at each project site. The methodologies were then evaluated, using the basis of the relationship between the test results and actual cost levels.

1.3 Executive Summary of Principal Evaluative Findings and Conclusions

This section summarizes our observations of Programmatic activity, observations about PHA administrative fees and costs, and our principal conclusions.

1.3.1 Observations of Programmatic Activity

The PMM&Co. field teams agreed on a number of pervasive findings (supported by the data collected) about the Section 8 program as it is being carried out in the Sector C sample of PHAs.

1. There was a clearly identifiable administrative entity in each sample location carrying out a Section 8 program.

2. Whatever the original enthusiasm for, or reluctance to, entering the program, all the PHAs sampled appeared committed to having the program succeed. However, we observed extensive interpretation of regulations and instructions; such adaptation seemed positive in spirit and was designed to deal with local political and organizational influences.

3. All the necessary administrative and programmatic functions were being performed at each site; personnel assigned seemed to be knowledgeable about the program and the function(s) they were carrying out. Nowhere were functions omitted.

4. All HUD Section 8 regulations were being adhered to in spirit. Deviations were minor and were based on individual interpretations. The books and records required to conduct our study were being kept by the PHAs sampled, although there was little uniformity.

5. There seemed to be no procedural, cultural, or programmatic barriers to obtaining sufficient recipients to fulfill the Annual Contribution Contract (ACC) allocations. A variety of mechanisms proved effective. A balance in participation objectives with respect to income mix, age, family size, etc., is yet to be achieved. Specific PHA activities aimed at reaching a programmatic balance were inconsistent.

6. For the most part, the PHAs must work vigorously and explicitly to bring landlords into the program. Although a variety of methods were used and the full ACC allocation will be fulfilled with participating units, the pace of landlord and unit intake was lower than anticipated.

7. The most significant impediments to accelerating implementation of the existing housing program seem to be a perception of low FMRs, lack of stable and

complete regulations, and landlords' reluctance to participate in the program. The initially perceived slowness in implementing the program, which we attributed to bureaucratic inertia in the area offices and in PHAs that have other active housing programs, seemed for the most part to have disappeared.

1.3.2 Observations about PHA Administrative Fees and Costs

We have analyzed the cost of performing the various administrative functions and the associated costs and fees (as described in Sections 5 through 7). Our principal observations are:

1. PHAs in standard metropolitan statistical areas (Metros) experience higher preliminary activity costs than PHAs in non-Metros. This is apparently due to the use (in Metros) of specialized, professional staff to carry out functions that are performed in non-Metros by nonspecialized staff. Some price index differences are observable.

2. In PHAs whose costs tend to exceed the grant for preliminary activities, the ongoing fee grants tend to be exceeded as well. This may provide an early warning of administrative difficulties to the HUD area offices.

3. The preliminary fee granted seems, with few exceptions, to be more than adequate to cover the costs that will be incurred when lease-up of the ACC allocation is reached.

4. The ongoing (program maintenance) fee granted seems to be inadequate to cover the "steady state" costs of maintaining the program. Upward adjustment of the FMR should provide sufficient cost reimbursement, at least temporarily. Although our estimates of the steady state costs of maintaining the program are tenuous because of the low program marketing level in local jurisdictions, we estimate that the flat cost would be between $17.40 and $18.31 per leased-unit-month. A more supportable estimate should be developed by collecting longitudinal cost data about July of 1977.

1.3.3 Summary of Principal Conclusions

Some observations have led the analytical team to suggest initiatives the Office of Assisted Housing might take to improve the acceptance and strength of the Section 8 program. These are listed in order of their apparent need.

1. The costs measured at the sampled PHAs had extremely high dispersions. This seemed to provide the focus for a number of pervasive issues:

   (a) PHA activities carried out under Section 8 need to be more consistently understood and carried out. To rely on regulations to convey programmatic content and procedures seems insufficient. The PHAs seemed to need directly useful spot assistance on specific problems they were encountering; concurrently, they seemed to be reluctant to consider HUD area offices as sources of assistance.

   (b) Within the need to encourage the limited adaptation of the program to suit local conditions, PHA cost accounting procedures, linked with reconsideration of reimbursement formulas, need to be made more consistent and more useful to the PHAs. The principal changes that should be considered revolve around severing cost recording with budgeting. In many PHAs, costs are recorded to match budget content rather than to record costs incurred.

2. Many PHAs felt a degree of coercion by the area offices in that they were "encouraged" to participate in the Section 8 program. Participation in the Section 8 program (and development of Housing Assistance Plans) as a condition of receiving the CDBG needs to be clarified. Linkage of these federal financing programs by the HUD area offices needs either to be made explicit or prohibited.

3. The policy of limiting certifications to the ACC allocation needs to be examined. In particular, the value of keeping a "full pipeline" of recipients who can find places in available units needs to be determined. A full pipeline would require issuing certificates in excess of the ACC allocation to compensate for families that drop out of the program, overrun their allotted time, or are dissatisfied with the units available.

4. The structure of the current reimbursement formulas seems to be a reasonable basis for equitably covering the PHA costs and provides the basis for budgeting or program control. However, the administrative (maintenance) costs incurred did not correlate with the fair market rent. Alternative structures that provide incentives for PHA efficiency, based on either output measures or program performance, should be further analyzed. The key consideration for this examination is determining whether the formula structure reduces the cost to the government and improves the chances of meeting program goals by involving the private sector in the housing of low-income families.

1.4 Format of the Report

This report on the administrative functions performed and their associated costs and fees presents our findings, conclusions, and recommendations resulting from this project. In particular, this Analysis of Administrative Functions and Fees in the Section 8 Existing Housing Program report discusses:

- patterns of organizational placement, staffing, and operational procedures that seem to be both efficient and effective in bringing qualified clients and potential housing units into the program;

- our analyses of the actual preliminary and administrative costs incurred by sponsor agencies and a comparison of these costs with the reimbursement formulas;

- evaluations of variables that affect administrative cost levels; and

- potential new cost-reimbursement methodologies and the sponsor agency cost accounting procedures that may be required by HUD to assure that the fee reimbursement methodology reflects service levels and costs.

This report is organized as follows:

- Section 2, Methodology, describes the methodology used to collect data from 30 PHAs sampled in the western part of the United States (Sector C) and the analytical and statistical processes used to evaluate the data.

- Section 3, PHA Program Status, includes a description of the current status (in terms of experience, size, and percent of lease-up) of the 30 PHAs visited and generalized statements of the status of Section 8 PHAs in Sector C.

- Section 4, General Administrative Management Findings, presents our documentation and analysis of the current management practices and procedures in the sampled sites and in Sector C, reflecting such factors as understanding of the program, organizational analysis, and financial administration.

- Section 5, Analysis of PHA Functions, provides a performance and cost review of the specific PHA administrative functions carried out in the Section 8 program. Both statistical and nonstatistical "service indices" are utilized.

- Section 6, Analysis of Preliminary Fee, provides our assessment of the preliminary fees granted by HUD to the PHAs, the preliminary costs incurred in performing the required administrative functions, and a comparison of the two.

- Section 7, Analysis of Administrative Fee, provides the counterpart analyses of the performance and costs of the program maintenance functions and compares

these costs with the greater of the 8.5 percent of FMR or $15.00 administrative fee.

- Section 8, Analysis of Alternative Fee Structures, provides our detailed analyses of current and alternative fee reimbursement mechanisms.

2. METHODOLOGY

The analysis of administrative functions was carried out on two levels. The first (or overview) level sought to place the Section 8 activities of the PHA in an organizational context and an institutional setting. The character and purpose of each sponsoring agency were described in a structured and quasi-quantitative manner. Each agency's principal charter(s) and the consequent derivative activities were identified; the overall agency output activities were quantified with respect to the resource input, the transaction volume and rate, and the scope and density of the potential beneficiary and housing population.

Concurrently, the team delineated how the Section 8 sponsoring agency (PHA) relates organizationally to local general-purpose government, how much it focuses and concentrates Section 8 functions within the agency, and how it directs and controls these functions. This was done by analyzing both the formal organizational structure (i.e., the actual lines of authority) and the way staffs for the Section 8 functions were selected.

In this first level of analysis, the team identified how direction and staff activity of the Section 8 administrative functions were linked (if at all) with other related housing programs of the PHA.

At the second level, our effectiveness analysis focused on the Section 8 PHA management support functions themselves and the manner in which they are conducted.

The effectiveness of the administrative function was determined by analyzing:

- the resources used in those functions (input);
- the qualitative and quantitative results produced (output); and
- the functions themselves and how they are performed.

2.1 Analysis of Resources Used

Each of the administrative functions was analyzed and evaluated for the resources used. The resource content was measured directly by

examination of agency records (if such records were kept) or estimation (if they were not). The measurement included the total resource content of those functions and time distributions of their input. These measurements or estimates were verified by cross-checking with the staff composition as to number and skills and their representativeness of the ethnic and social character of the jurisdiction.

2.2 Analysis of the Results Produced

The volume of activity was measured directly or estimated (e.g., head or unit counts of potential and actual beneficiaries or housing units sought and inspected). The quality of the results was, of course, of great significance and included examinations of "service (level) indices" for each function.

2.3 Analysis of the Functions and How They Are Performed

In conducting this activity, we examined principally the steps that are carried out for each function and how decisions are made and the criteria used.

2.4 Data Collection and Analysis Strategies

Because of potential variations in local PHA administration practices, jargon, and organizational forms and the range of cost accounting methods, the survey required on-site interpretation and estimation. For this reason, teams of cost accountants and consultants used questionnaires and interview guides which, while not open-ended, carried the interviewer through a procedure and program for arriving at each specific piece of information needed.

Specifically, the strategy included the following components:

- development of appropriate survey instruments, interview guides, and a procedure guide to standardize cost collection procedures;
- conduct of the on-site field survey;
- analysis of cost and service level data; and
- testing and validation of alternative methods for analyzing service effectiveness and fee costs.

2.4.1 Field Survey

During this data gathering task, various members of the project team visited the 30 PHAs to:

- identify the specific levels of administration services offered at each site as part of both preliminary and administrative maintenance services (e.g., activity rates, including contacts made, client income analyzed, units inspected);
- characterize the organizational and functional processes for carrying out Section 8 administration activities;
- evaluate service results (e.g., housing units qualified relative to the potential market, families successfully placed in the program), using the measuring techniques previously developed;
- document and estimate, if necessary, the actual service delivery costs for each activity; and
- evaluate the accuracy, consistency, and validity of any cost accounting and cost allocation procedures used to develop administration services budgets and periodic cost reports.

Although the field survey did not include a financial audit of the accounting systems in each agency, the field work utilized documentation of the major accounting procedures and controls (e.g., timesheets, activity reports, vouchers) used by the PHAs to control administrative activity and to allocate costs to specific administrative services elements. To develop costs on a comparable basis from site to site, the field work also required the team to reallocate cost categories and make estimates of allocations on the basis of the table variables and "standard definitions" previously developed.

2.4.2 Analysis of Cost and Service Level Data

This task involved the cross-site analysis of administrative function definitions, service levels, and cost. It consisted of four major activities:

- An analysis of the different approaches to service delivery by each administrative component. For example, the various outreach and client-counseling methods used at each site were documented and compared for both similarities and differences.

- An analysis of the different cost allocation and cost accounting procedures used at each site. For example, some of the administration services required an allocation of personnel costs (salary) to more than one function (e.g., outreach, certification, counseling). Differences in approaches for accounting for these at the various sites required special consideration. Indirect costs were also developed and allocated to the analysis of preliminary ongoing activities.

- An analysis of the relationship between actual costs (modified as necessary by our revised cost allocations) and the fees paid by HUD.

- An analysis of those factors impacting the cost of service levels at each PHA. For example, the characteristics of the sponsor agency and the market served (e.g., geographic size and density, number of units) that appeared to impact service unit cost levels directly were identified and analyzed.

2.4.3 Testing and Validation of Alternative Methods for Analyzing Service Effectiveness and Fee Costs

As a result of the analyses described above, the team developed alternative methodologies and formulas that could be used to estimate administrative functional activity rates and results and to calculate fee levels. Each hypothetical methodology was tested using the actual sponsor cost data previously obtained. We anticipated being able to produce a formula for fee payments not significantly more complex than the FMR basis

now in use. The results of each test were analyzed in terms of such criteria as the ease with which the particular methodology could be implemented through revised cost accounting procedures at each sponsor agency and the relationships between the calculated amount; the actual, preliminary, and administrative costs; the potential costs savings to HUD; and the risk of potential reduction in service levels (and consequently in operational effectiveness) by the sponsors if the incentive of the revenue-to-cost spread were reduced.

2.5 Presentation of Data and Results

Data on costs and service levels in the categories described were developed for each PHA. Each statistic was formulated with a set of data points, each point representing a value measure for that variable at a PHA. The data were aggregated by various categories, each expressing an independent variable that we considered as potentially influencing the cost and service level statistics of interest. These might include such considerations as ACC size, months since ACC, and whether a PHA is in a non-Metro location.

These statistics are presented in tables in the following sections aggregated by the significant PHA characteristic classifications, such aggregations and averages being developed directly from the measurements and estimates made at the sample of PHAs.

Such metric values of the statistics are of interest in that they characterize what the field teams actually experienced. However, we recognize that the calculated values of these statistics (averages) may not be accurate insofar as the data points that are the basis for these calculations do not exist (in frequency of occurrence) in the overall PHA population as they do in the sample of PHAs at which the data point measurements were made.

To reduce the bias in the directly calculated sample values of costs and service indices, each appropriate data point has been adjusted or weighted to reflect the true frequency that its PHA source appears to have in the general population of PHAs in Sector C (western United States). All calculations, conclusions, and significant findings are based on the corrected or weighted values of the statistics generated. The weighted values of costs and service indices referred to above are shown in the tables, except when the direct measurement or uncorrected values were

required; in those cases the tables are appropriately labeled. Therefore, the corrected values are labelled "Sector C." The direct sample measurement statistics are labelled "sample."

The reader should not be misled as to interpreting the label "sample" as meaning representative sample; in fact the sample that was drawn was a disproportionate sample of Sector C. Therefore, the unweighted sample results are not appropriate for program evaluation interpretations.

A detailed description of the weighting procedure is shown in the Appendix.

Sections 5 through 7 include estimates of statistical validity and confidence intervals. We have not dwelt on this issue at length because of the overall sample size (30 PHAs). Subclassification of the sample further weakens statistically based arguments, and therefore we have frequently included nonstatistical arguments and analyses.

The Appendix also includes an analysis of the statistical accuracy procedures used and their importance in the analysis.

The Westat Work Plan Document of September 1967 describes in detail the methodology employed.

3. PHA PROGRAM STATUS

The PHAs sampled represent various types of communities in Sector C, and the challenges faced by the PHAs vary accordingly. This section contains a summary of:

- the population of the jurisdictions;
- the types of communities within the jurisdictions;
- the dispersion of recipients;
- the reasons why the PHAs applied for the program;
- the implementation problems encountered; and
- the levels of program achievement attained as of the date of the survey.

These data are both presented for the 30 PHAs sampled and projected for Sector C.

Section 2 and the Appendix describe the limitations on the projections for Sector C. In this section, where the analysis presents a percent of PHAs as projected for Sector C, the 90-percent confidence interval of that percent can be determined from Table 3-1 below.

Table 3–1

Confidence Interval for Sector C Proportion Projections

PROJECTED PERCENT OF SECTOR C PHAs (%)	90-PERCENT CONFIDENCE INTERVAL (%)
10 or 90	±12
30 or 70	±18
50	±20

When the analysis presents a continuous metric value (i.e., not a percent of PHAs) projected for Sector C, the confidence interval has been excluded. This approach has been employed because the relatively small number of PHAs sampled in a relatively large dispersion (i.e., standard deviation) and the estimation of the true standard deviation (i.e., standard deviation for the 30 PHAs sampled times the design effect constant of 1.3) would result in a relatively large confidence interval.

3.1 Jurisdiction Characteristics

The jurisdictions of the PHAs sampled ranged in population from 2,000 to 2,000,000. For the 30 PHAs sampled, 50 percent served a population of less than 100,000, which projected to 67 percent of the PHAs in Sector C. Table 3-2 summarizes these findings.

Table 3–2

Summary of Sector C Jurisdiction Population

JURISDICTION POPULATION	PERCENT OF PHAs	
	Sampled	Sector C
Under 50,000	30	38
50,000 to 99,999	20	29
100,000 to 499,999	27	25
500,000 and over	23	8
TOTAL	100	100

(N=30)

The proportionate over-representation in the sample of PHAs of 500,000 or more in jurisdiction population is indicated by this table. Although agencies with this large population represent 23 percent of the PHAs sampled, only 8 percent of the PHAs in Sector C are projected to serve a a population of 500,000 or more. (Table 3-3 presents population by PHA sampled.)

Table 3–3

Summary of Jurisdiction Characteristics by PHA

SITE	POPULATION OF JURISDICTION (a)	ESTIMATED FAMILIES IN JURISDICTION (b)	PERCENT OF FAMILIES ELIGIBLE	TYPES OF JURISDICTION						
				Open Country	Small City	Suburb of Small City	Medium City	Suburb of Medium City	Large City	Suburb of Large City
1	500,000	450,000	44						X	
2	914,000	280,000	45						X	
3	401,000	103,000	44	X	X	X			X	X
4	130,000	38,700	44				X			
5	62,500	16,000	44				X			
6	44,600	26,000	42	X	X					
7	216,000	63,000	11				X			
8	21,200	5,895	12		X					
9	43,200	6,000	9	X	X	X				
10	24,750	8,700	17		X					
11	2,000	500	18	X	X					
12	821,000	66,450	90						X	
13	170,000	39,000	48				X			
14	8,000	2,300	34		X					
15	96,000	25,000	19	X	X					
16	135,000	33,400	10							X
17	350,000	127,000	7	X	X	X	X	X		X
18	26,000	8,300	36		X					
19	80,000	25,900	37				X			
20	54,600	31,800	37	X	X	X				
21	447,000	84,947	36	X	X	X	X	X		
22	750,000	191,385	38		X	X	X	X		
23	225,000	78,800	37	X	X	X	X	X		
24	65,000	24,000	23							X
25	2,000,000	597,700	22		X	X				
26	700,000	7,500	9	X	X	X	X	X		
27	95,000	31,274	10					X		
28	556,700	162,100	18	X	X	X			X	X
29	43,000	14,000	20	X	X	X	X	X		
30	48,000	15,725	8	X	X	X				

(a) as reported by PHA.

(b) as reported by HUD Area Office. These data are inconsistent with the PHA-reported population for some sites and may be attributable to different perceptions of the jurisdiction boundaries.

The HUD area offices have estimated that the eligible families in the PHAs sampled represent from 7 to 90 percent of the families residing within the jurisdiction. The majority of the PHAs sampled (73 percent) and as projected for Sector C (79 percent) are estimated to serve jurisdictions in which less than 40 percent of the families are eligible for the Section 8 program (Table 3-4).

Table 3—4

Family Eligibility Distribution in Sector C

ESTIMATED PERCENT OF FAMILIES ELIGIBLE	PERCENT OF PHAs
Under 20	54
20 to 39	25
40 and over	21
TOTAL	100

(N=30)

These data by PHA (see Table 3-3) indicate that the need for rental subsidies to households is not simply a factor of the jurisdiction population. As would be expected, other socioeconomic factors influence the relative need in a jurisdiction for a program like Section 8.

Staff at the PHAs sampled were asked about the type of communities within their jurisdiction. As indicated by PHA in Table 3-3, the PHAs sampled served a variety of community types. Table 3-5 summarizes the responses of the PHA staff.

Table 3—5

PHA Staff Responses Regarding Community Type in Sector C

TYPE OF AREA SERVED BY PHA	PERCENT OF PHAs (N = 30)	NUMBER OF PHAs BY TYPE
Open country, small housing clusters	46	13
Small city/town (under 50,000)	69	19
Suburb of small city/town	22	12
Medium city/town (50,000-250,000)	35	11
Suburb of medium city/town	17	7
Large city (over 250,000)	3	5
Suburbs of large city	13	5

These responses indicate that the Section 8 program in Sector C is primarily serving rural types of communities, with a projected 69 percent of the PHAs in Sector C serving a city/town with a population under 50,000. When compared to the projected 38 percent of the Sector C PHAs serving a jurisdiction of under 50,000 total population, these data indicate that approximately 30 percent of the PHAs in Sector C serve a jurisdiction comprised partly of a small city/town and partly of other community types. PHAs Number 3, 17, and 28 indicated that the PHA jurisdiction included both small and larger (over 250,000 population) cities.

Information about the dispersion of eligible families within the PHA jurisdiction was not readily available. PHA staff were questioned, however, about the relative dispersion of the recipients. These responses are summarized in Table 3-6 below as a surrogate of the eligible population dispersion:

Table 3–6

PHA Staff Responses Regarding Relative Dispersion of Recipients in Sector C

RECIPIENT CLASSIFICATION	PERCENT OF PHAs WITH RECIPIENTS			
	Concentrated in One Area	Concentrated in A Few Areas	Scattered	Total
All Section 8 Recipients	-	16	84	100 (N = 30)
Minority Recipients	8	28	64	100 (N = 26)

These responses indicate that (1) the recipients, whether minority or not, are generally scattered throughout the jurisdiction and (2) presumably the eligible population is also dispersed. Of note is that three PHAs indicated that minority recipients are concentrated in one area while none of the PHAs indicated that the recipients in total were concentrated in one area. From the data available, we cannot conclude whether this is because the

minority population is concentrated in one area, because the PHA is at-attracting and certifying minority households from only one area, because the minority recipients have opted to reside in the same area, or because of some other factor(s).

3.2 Program Experiences

A strong need for low and moderate income housing appeared as the most important factor influencing the decision of a PHA to participate in the Section 8 Existing Housing Program (see Table 3-7), according to PHA staff. Encouragement by local elected officials was considered by PHA staff to be a relatively important factor in the decision to participate in Section 8. Encouragement from local community organizations and property owners, however, was not considered to be important to the decisionmaking process. A high vacancy rate for rental units was not considered to be an important factor in the decision to participate. However, the data do not indicate whether a high vacancy rate existed at the time the decision to participate was made. The relative importance of the factors influencing the decision to participate is projected to be about the same sectorwide as for the PHAs sampled.

Table 3–7

Factors Influencing Decision to Participate in Section 8 Existing Housing Program in Sector C

FACTOR	AVERAGE LEVEL OF IMPORTANCE (N = 30)
The area had a strong need for low and moderate income housing	1.2
There were no other new housing programs available	1.4
There were no new construction programs available	1.6
Local elected officials encouraged participation	1.6
The HUD area office encouraged participation	1.6
The agency attempts to apply for all available housing programs	2.1
Local community organizations encouraged participation	1.9
The locality would have lost community development block grant funds had the agency not applied	2.5
Local property owners encouraged participation	2.7
There was a high vacancy rate in the area	2.8

Legend: 1.0 - very important
2.0 - somewhat important
3.0 - not at all important

The HUD area offices were reported by the PHAs to have made a variety of efforts to encourage PHA participation in the Section program. These efforts are summarized in Table 3-8. Of particular note is the fact that approximately 43 percent of the PHAs sampled indicated that the HUD area office had pointed out that Community Development Block Grant funding could be related to participation in the Section 8 program.

Table 3–8

Area Office Efforts to Encourage Participation in Sector C

EFFORT	PERCENT OF PHAs
Made phone calls, visits, personal contacts and/or sent letters.	81 (N=30)
Hold general information meetings to explain the program.	77 (N=30)
Sponsored training sessions to assist in preparation of applications.	68 (N=30)
Pointed out that CDBG funding could be related to participation in the Section 8 program.	49 (N=30)
Sent the PHA more than one invitation.	29 (N=29)

The primary implementation problems encountered by the PHAs sampled have been related to the locating of units rather than to finding qualified applicants (Table 3-9). Finding landlords has presented minor problems to the PHAs, as has finding units that meet PHA housing quality standards. Finding applicants in general and, specifically, finding minority, low income, or lower income applicants have presented no major problems to the average PHA.

Table 3-9

Potential Problems with Implementation of the Section 8 Program in Sector C

PROBLEM	AVERAGE MAGNITUDE OF PROBLEM
Finding units with three or more bedrooms	1.3 (N=29)
Finding units renting within the FMRs	1.4 (N=30)
Certified households having difficulties in searching for units	1.5 (N=30)
Landlords not wanting to rent to large families and/or welfare families	1.7 (N=29)
Finding landlords who are interested in participating	1.8 (n=30)
HUD supplied materials are not understood by certificate holders	1.8 (N=30)
Too few staff available to assist households in their search for units	1.9 (N=30)
Finding units that meet the housing quality standards	1.9 (N=30)
Getting landlords to accept conditions of lease	2.1 (N=30)
Explaining the program to households	2.3 (N=30)
Being unable to assist homeowners with this program	2.4 (N=30)
Explaining the program to landlords	2.5 (N=30)
Cannot use the program for emergency housing	2.5 (N=30)
Utility allowances too high	2.4 (N=30)
Utility allowances too low	2.6 (N=30)
Finding lower income households as defined by Section 8	2.7 (N=30)
Too few minority applicants	2.4 (N=30)
Finding enough people to apply so that the ACC allocation is fully used	2.6 (N=30)
Training staff to administer the program	2.7 (N=30)
Conducting inspections in timely fashion	2.7 (N=30)
Community and/or landlord concern about potential applicants from outside community	2.7 (N=30)
Finding very low income households as defined by Section 8	3.0 (N=30)

Legend:

1.0 - major problem
2.0 - minor problem
3.0 - not a problem

The PHAs responded to a series of questions about administrative problems encountered. As indicated in Table 3-10, they did not have major problems with any of the potential areas presented. The PHAs did indicate that minor problems had been encountered with the total paperwork required for the Section 8 program and with receiving adequate and timely instruction, explanation, and clarification from the HUD area offices.

Table 3-10

Problems with the Administrative Work
Involved in the Section 8 Program
in Sector C

PROBLEM	AVERAGE MAGNITUDE OF PROBLEM
Amount of total paperwork in the Section 8 program compared with other housing programs the PHA has administered	1.8 (N=29)
Receiving adequate processing instructions from the HUD area office	1.7 (N=30)
Getting enough explanation and clarification on program requirements from the HUD area office	2.0 (N=30)
Getting prompt HUD area office action	2.1 (N=30)
Adjusting to changes in Section 8 regulations	2.5 (N=30)
Amount of time involved in verifying application information	2.7 (N=30)
Receiving payments for requisitions on time	2.5 (N=30)
Having cash on hand for start-up costs prior to first requisition	2.5 (N=30)
PHA staff not understanding how the program operates	2.7 (N=30)
Processing and sending out payments to landlords	2.8 (N=30)

Legend: 1.0 - major problem
2.0 - minor problem
3.0 - not a problem

Landlords most frequently decide not to participate in the Section 8 Existing Housing Program because the fair market rents are too low, according to the PHAs (see Table 3-11). The next most frequent reason is a lack of landlord desire to be involved in a government program. This may partially explain why the PHAs considered the finding of units a relatively major implementation problem. Specifically, finding landlords willing to participate was considered by the PHAs to be a minor problem (Table 3-9). Thirty percent of the PHAs sampled indicated that landlords state that they do not want to participate because they do not like the potential tenants. In evaluating implementation problems, the PHAs on the average indicated that landlord unwillingness to rent to large families and/or welfare families was between a major and minor problem.

Table 3–11

Reasons Why Landlords do not Participate in Program in Sector C

REASON	PERCENT OF PHAs (N = 30)	
	In Which Reason Cited	In Which Reason Most Frequently Cited
Do not wish to be involved in a government program	91	17
Rents unit without Section 8	87	8
Fair market rents too low	75	44
Adverse perception of program	65	-
Too much paperwork	48	6
Do not wish to make repairs	54	8
Other	43	9
Do not like potential tenants sent by PHA	36	9
Lease restrictions	13	-

In general, local government officials were reported by the PHAs to be supportive of the program. Local media were also considered to be supportive, although not as supportive as the local government officials.

3.3 Evaluation of Program Results: Conclusions

The 30 PHAs sampled reflected different program levels. The number of units authorized under Annual Contributions Contracts ranged from 22 to 2,100; the number of authorized units per 100 eligible families ranged from 0.8 to 42.9; lease-up ranged from 15 to 100 percent; and the number of months since execution of the Annual Contributions Contract ranged from 4 to 16. These and other indicators of program levels are presented in each of the 30 sampled sites in Table 3-12.

Table 3–12

Program Level Indicators

SITE	ACC UNITS	INQUIRIES PER 100 ELIGIBLE FAMILIES	APPLICATIONS PER 100 ELIGIBLE FAMILIES	CERTIFICATES PER 100 ELIGIBLE FAMILIES	PERCENT OF LEASE-UP	OUTSTANDING CERTIFICATES AS PERCENT OF ACC	PERCENT OF APPLICATIONS PER UNIT CERTIFIED	INSPECTIONS PER UNIT LEASED	PERCENT OF UNITS FAILING INITIAL INSPECTION	NUMBER OF MONTHS SINCE ACC EXECUTED
1	1,619	0.8	1.9	1.2	72	28	65	1.9	27	13
2	1,380	1.1	3.1	1.5	85	10	49	1.7	50	13
3	1,085	2.4	4.6	4.1	68	32	89	1.4	1	15
4	232	1.4	4.7	3.2	68	32	69	1.3	17	11
5	350	5.0	12.1	6.9	82	15	57	1.4	10	12
6	126	1.2	1.2	1.2	15	85	98	1.6	43	9
7	466	6.7	9.9	2.2	27	12	22	1.3	24	11
8	55	7.7	18.3	9.4	30	70	51	1.6	18	8
9	70	12.7	28.7	16.0	80	20	56	1.4	11	9
10	95	6.3	5.7	4.2	39	-	74	2.6	13	8
11	22	24.4	60.0	17.8	55	5	30	3.7	60	9
12	1,182	2.0	4.8	2.7	42	39	57	1.3	39	16
13	118	0.6	1.5	1.1	100	-	75	2.4	90	12
14	60	7.6	8.1	6.7	75	8	88	1.7	11	7
15	100	2.1	1.3	1.2	46	10	90	1.5	26	4
16	80	2.4	7.2	3.0	96	4	41	1.3	2	13
17	150	1.7	8.9	1.4	54	-	16	1.5	8	11
18	109	3.6	10.0	3.5	95	5	35	3.3	92	11
19	159	1.4	5.6	1.7	56	11	30	1.2	14	12
20	162	1.4	1.4	1.4	36	14	100	1.3	-	9
21	981	3.2	3.2	3.1	27	24	99	1.1	4	10
22	944	1.3	2.5	1.5	37	34	62	1.1	3	11
23	413	1.4	3.3	0.9	30	23	28	1.5	26	10
24	56	1.0	2.8	1.8	86	7	65	1.1	13	13
25	2,100	1.6	2.1	1.8	45	19	87	1.5	16	10
26	300	42.9	171.4	74.0	58	42	43	1.4	3	8
27	50	1.6	4.0	2.4	100	-	60	1.3	17	12
28	1,344	4.6	7.7	4.7	57	17	61	1.3	1	13
29	65	2.3	8.2	4.1	89	11	50	1.2	11	10
30	156	13.0	15.1	8.6	36	17	56	1.0	-	8

The status of lease-up is significantly affected by certificates of participation issued and outstanding, as indicated in Table 3-13.

Table 3–13

Lease-Up Status in Sampled PHAs

PERCENT OF AUTHORIZED ACC UNITS	PERCENT OF PHAs	
	Units Leased	Units Committed
Under 40 Percent	30	7
41-65 Percent	27	27
66-90 Percent	30	17
Over 90 Percent	13	50

(N=30)

The commitment of authorized units, leased units plus outstanding certificates, ranges from 30 to 100 percent, compared to a low of 15 percent leased up. Whereas 30 percent of the PHAs were less than 40 percent leased up, only 7 percent were less than 40 percent committed, and the 13 percent over 90 percent leased up increases to 50 percent of the PHAs over 90 percent committed. Of the two sites with less than 40 percent of the authorized ACC units committed, one has certified only 22 percent of the applicants and the other has certified 74 percent of the applicants but has received less than one application per authorized unit.

All of the PHAs that had been under ACC for less than 10 months were less than 90 percent leased up, with a majority less than 65 percent leased up, and all of the PHAs that had been under ACC for more than 12 months were over 40 percent leased up, with a majority between 66 and 90 percent leased up.

4. GENERAL ADMINISTRATIVE MANAGEMENT FINDINGS

Section 3 described the general status of the Section 8 Existing Housing Program. This section describes in general the organization and financial administration of the PHAs sampled and contains some preliminary analyses of PHA characteristics, both programmatic and administrative, that appear to impact the program.

The statistics presented in this section are projections of the 30 PHAs sampled in Sector C and are subject to the same limitations described in Section 3.

4.1 PHA Administrative Organization Characteristics

The majority (70 percent) of the PHAs sampled and an estimated majority (65 percent) of the PHAs in Sector C are local housing authorities administering other housing programs. The types of PHAs sampled are summarized in Table 4-1.

Table 4-1

Types of PHAs in Sector C

TYPE OF PHA	PERCENT OF PHAs
Local Housing Authority	65
Local Housing and Redevelopment Agency	17
Local Government Body	5
Other	13
TOTAL	100
Percent of agencies administering other housing programs as well	66

(N=30)

Most (77 percent) of the PHAs sampled existed prior to the Section 8 program, which projects to 86 percent of the PHAs in Sector C having been established for non-Section 8 purposes. This finding is not surprising because approximately 57 percent of the PHAs sampled and an estimated 60 percent of the PHAs in Sector C have existed for more than 5 years (i.e., were created before enactment of the Section 8 legislation). The age of agencies (in years) and the age of the Section 8 program in the agencies (in months) are summarized in Table 4-2.

Table 4-2

Age of Agencies and Section 8 Program in Sector C

AGE	PERCENT OF PHAs
Number of years agency has existed	
1 or less	31
2 to 5	9
6 to 10	31
over 10	29
TOTAL (N=30)	100
Number of months since ACC execution	
0 to 3	—
4 to 9	51
10 to 12	38
over 12	11
TOTAL (N=30)	100

Within the administrative plan of many sampled PHAs, explicit procedures exist for systematically specializing the work necessary to achieve the PHA's objectives. Different tasks are assigned to different positions and sections, branches may be created in dispersed locations, and administrative responsibilities are subdivided among staff personnel and

managers on various levels. The larger the PHA and its scope of responsibility, the more pronounced are the characteristics of its administrative organization. This is also the case for other programs being administered.

Table 4-3 illustrates the characteristics of PHA administrative organizations by:

- Metro or non-Metro; and
- number of housing units under ACC.

Some general findings on the sampled PHAs are:

- non-Metros use only PHA staff to perform inspections;
- Section 8 programs in high population areas are more likely to have specialized staff; and
- a positive correlation exists between population and ACC size.

Table 4-3

PHA Administrative Organization Characteristics of Sampled PHAs

(N = 30)

	FULL-TIME SECTION 8 PROGRAM MANAGER (%)		FULL-TIME SECTION 8 CERTIFICATION (%)		USE PHA STAFF AS INSPECTOR (%)		PHA ADMINISTER PROGRAMS OTHER THAN SECTION 8 (%)	
POPULATION	YES	NO	YES	NO	YES	NO	YES	NO
<50K	44	56	11	89	89	11	56	44
50-100K	67	33	–	100	83	17	33	67
100-500K	75	25	25	75	62	38	88	12
>500K	86	14	43	57	57	14[1]	86	14
Non-Metro	50	50	13	87	100	–	50	50
Metro	73	27	23	77	60[2]	33	83	17
ACC SIZE								
0-70 units	43	57	–	100	100	–	29	71
71-130	50	50	17	83	67	33	83	17
131-399	71	29	–	100	72	14[4]	86	14
400-999	100	–	25	75	50	50	100	–
Over 999	83	17	67	33	68	16[3]	67	33

[1] Twenty-nine percent use a combination of both.

[2] Seven percent use a combination of both.

[3] Sixteen percent use a combination of both.

[4] Fourteen percent use a combination of both.

4.1.1 Program Director--Section 8

A program director has the overall responsibility for development and execution of the Section 8 programs. A PHA within a population jurisdiction of less than 100,000 population is less likely (53 percent) to have a fulltime (spends 75 percent or more of a 40-hour work week on Section 8) program director than a PHA within a jurisdiction with more than 100,000 population (80 percent). Of the Metro sites sampled, 73 percent had fulltime program directors, while only 50 percent of the non-Metro sites sampled had a fulltime program director. In many cases, Section 8 programs in low population areas are not large enough to warrant a fulltime program director, or the PHA may administer programs other than Section 8 and "share" management skills. PHAs in high population areas are more likely to have program directors because of the large numbers of eligible families, additional staff, and the experience needed to manage a diverse and complex program.

4.1.2 Certification

A person who is certified as fulltime (spends 75 percent or more of a 40-hour work week on Section 8 and 75 percent or more Section 8 time on one function) has the responsibility to determine and certify the eligibility of potential recipients. In most cases, general PHA staff are responsible for the certification of Section 8 applicants. For sampled non-Metro sites, 87 percent use general PHA staff. At Metro sites, 77 percent use general PHA staff, while 23 percent use fulltime certification staff.

PHAs in high population sites generally have more and older housing programs and therefore have more staff and use specialized positions. This suggests that mature agencies tend to administer the Section 8 program with staff comparable in training and professional development to the staff they employ on their other programs.

4.1.3 PHA Inspection Staff--Section 8

Inspectors have the responsibility of determining whether inspected units meet PHA Housing Quality Standards. In most cases, Section 8 programs utilize PHA staff to inspect units. All of the sampled PHAs in non-Metro sites reported that PHA staff performed inspections. At Metro sites, 60 percent use PHA staff, 33 percent use local inspectors only, and 7 percent use a combination of both.

4.1.4 Professional Staff

PHA staff were asked the question, "How many of your agency's staff would you classify as professionals in the field of housing?" The PHAs sampled in non-Metro areas had fewer professionals per 100 ACC units than did the PHAs sampled in Metro areas, as indicated in Table 4-4.

Table 4-4

Distribution of PHA Professionals in Sampled PHAs

SITE	NUMBER OF PROFESSIONALS PER 100 ACC UNITS AUTHORIZED	N
Metro	5	21
Non-Metro	2	8
All PHAs	4	29

4.1.5 PHA Staff Administering Programs Other Than Section 8

PHAs in low population areas are less likely to administer programs other than Section 8. Many PHAs were formed in low population areas for the explicit purpose of administering the Section 8 program, which has since 1974 been the principal federal housing program for low-income persons.

PHAs in high population areas are more likely to administer housing programs other than Section 8 (e.g., Section 23). Higher population areas have a greater need for diverse housing programs to reach eligible clients and provide adequate housing than do lower population areas.

4.1.6 Population versus ACC Size

As expected, there appears to be a positive correlation between population and ACC size: relatively large populations tend to be associated

with relatively large ACC sizes, and relatively low populations tend to be associated with relatively low ACC sizes (Table 4-5).

Table 4-5

Distribution of PHAs by ACC Size in Sector C

NUMBER OF UNITS UNDER ACC	PERCENT OF PHAs
0-70	24
71-130	42
131-399	23
400-999	8
Over 999	3
TOTAL	100

(N=30)

4.2 Financial Administration

Although the PHAs generally do not have fulltime accountants for the Section 8 program, 93 percent of the PHAs sampled maintain separate books of accounts for the program, which projects to 95 percent of the PHAs in Sector C. The methods of cost allocation, however, are not consistent. As illustrated by the summary findings in Table 4-6, the majority of the PHAs do not use the HUD definition of preliminary and administrative (maintenance) costs.

Table 4-6

Cost Allocation Methods in Sector C

METHOD OF ALLOCATING COSTS BETWEEN PRELIMINARY AND ADMINISTRATIVE ACTIVITIES	PERCENT OF PHAs
No distinction	22
HUD definition	10
Percent of lease-up	13
Administrative after all units leased-up	20
Administrative after ACC execution	6
Administrative after first year	5
Time reports	13
Other	11
TOTAL	100

(N=30)

Of the 30 PHAs sampled, 47 percent use a standard overhead allocation rate for Section 8, but only 37 percent allocate overhead separately for preliminary and administrative activities (the projected Sector C percentages are 34 percent and 23 percent, respectively.)

The Section 8 program in the PHAs sampled is funded primarily by the ACC award. However, almost half of the sampled sites also receive some form of financial assistance or in-kind contributions (Table 4-7). This other assistance is predominantly in the form of staff time, office space, or financial assistance such as CETA funds.

The majority of the PHAs sampled perform all Section 8 functions with PHA staff. Of the PHAs sampled, 27 percent contract for Section 8 functions, as summarized in Table 4-8.

Table 4-8

Source of Staff by Function in Sampled PHAs

FUNCTION	PERCENT OF PHAs SAMPLED	
	Contracted in Part	Currently Contracted
Outreach to Households	-	3
Enrollment and Certification	7	7
Inspection of Units	20	20
Working with Certificate Holders	7	3
Working with Landlords	3	3
Making Payments	3	7
Percent of PHAs with at least one function	27	27

(N=30)

Of particular significance is that the inspection of units was the most frequently contracted service (20 percent of the PHAs sampled). This function might be expected to be performed on a contractual basis since it requires skills in a specialized discipline and on an intermittant basis.

Table 4-7

Types of Non-ACC Funding for PHAs by PHA Sampled

SITE	RECEIVED NON-SECTION 8 ASSISTANCE	TYPE OF ASSISTANCE				
		Office Space	Staff Time for Inspections	Other Staff Time	Other Financial Assistance	Other Nonfinancial Assistance
1						
2						
3						
4	X	X				
5						
6	X			X		X
7						
8						
9	X				X	
10						
11						
12	X					X
13						
14						
15	X				X	
16	X	X		X		X
17						
18						
19	X		X	X		
20	X	X		X	X	
21	X		X			
22	X			X		
23						
24	X	X	X	X	X	X
25	X			X	X	
26						
27	X	X				X
28						
29						
30	X	X			X	
Total Number of PHAs Sampled	14	6	3	7	6	5
Percent of 30 PHAs Sampled	47	20	10	23	20	17
Percent of Sector C	46	17	8	18	23	13

4.3 Observed Population Groups

For purpose of analysis, the 30 PHAs sampled have been stratified by several of their characteristics. Primary among these are:

- Metro (73 percent) versus non-Metro (27 percent);
- number of months since ACC execution (see above);
- number of years administering housing programs (see above);
- ACC size in units;
- percent of lease-up (see Section 3); and
- whether the PHA administers other programs (see above).

As indicated, most of these characteristics have been summarized for the 30 PHAs sampled and as projected for Sector C. The ACC size in units is as summarized in Table 4-5.

In the remainder of this report, the findings about a particular variable are presented for a subpopulation defined by two or more of the above stratifications. To facilitate the interpretation of those findings, the primary subpopulations are presented in Table 4-9. The subpopulations resulting from the combination of Metro versus non-Metro and ACC size are presented, along with the subpopulation generated by each of the two stratifications being paired with the number of months since ACC, the percent of lease-up, and population.

The analysis of Metro versus non-Metro indicates that the sampled non-Metros are all:

- under 10 months since ACC;
- under 90 percent leased-up;
- under 100,000 in jurisdiction population; and
- under 750 units in ACC size.

Table 4-9

Primary Subpopulations in Sector C

DESCRIPTION	PERCENT OF PHAs			ACC UNITS					
	Metro	Non-Metro	Total	0-70	71-130	131-399	400-999	Over 999	Total
Number of months since ACC									
0-3 months	-	-	-	-	-	-	-	-	-
4-9 months	6	45	51	18	26	7	-	-	51
10-12 months	38	-	38	4	9	16	8	1	38
over 12 months	11	-	11	2	7	-	-	2	11
Total	55	45	100	24	42	23	8	3	100
Percent of lease-up									
under 40	8	20	28	6	11	3	8	-	28
41-65	12	21	33	6	15	11	-	1	33
66-90	17	4	21	10	-	9	-	2	21
over 90	18	-	18	2	16	-	-	-	18
Total	55	45	100	24	42	23	8	3	100
Population									
under 50,000	10	28	38	20	16	2	-	-	38
50,000-100,000	12	17	29	4	15	10	-	-	29
100,000-500,000	25	-	25	-	11	7	6	1	25
over 500,000	8	-	8	-	-	4	2	2	8
Total	55	45	100	24	42	23	8	3	100
ACC units									
0-70	8	16	24						
71-130	16	26	42						
131-399	20	3	23						
400-999	8	-	8						
over 999	3	-	3						

(N=30)

The PHAs with less than 100 units in ACC size are less than 500,000 in population. Those PHAs of 750 units and more in ACC size are 100,000 and over in population. The finding that the non-Metros are both under 10 months since ACC and under 90 percent leased-up is consistent since the younger programs are not expected to have achieved full lease-up. The finding that the non-Metros are both under 100,000 in jurisdiction population and under 750 ACC units is also consistent, since ACC size is expected to be partly dependent upon population.

4.4 Summary of Management Findings: Participation Conclusions

Using Metro versus non-Metro as a general indicator of population and ACC sizes, Table 4-10 presents the factors influencing the decision to participate in the Section 8 Existing Housing Program (also see Table 3-7) and the potential problems with the implementation of the Section 8 program (also see Table 3-9), segregated by Metro and non-Metro. The need for low and moderate income housing is more important for non-Metros, as is the unavailability of new construction programs. Of special interest is the fact that encouragement from local elected officials and HUD area offices is more important to the non-Metros.

The severity of the potential implementation problems also provides some insight into the differences between Metros and non-Metros. For example, non-Metros experienced more severe problems with:

- landlords not wanting to rent to large and/or welfare families;
- finding units that met the housing quality standards and finding units within the FMRs; and
- explaining the program to households and certified households having difficulties in searching for units.

Finding lower income households, as defined by Section 8, was more difficult, although not an important problem, for Metros, while too few minority applicants and finding enough people to apply were more difficult for non-Metros. These differences in the severity of implementation problems are indicators of the general differences between urban and rural areas in the composition of the population in the community available and the housing stock (available).

Table 4-10

Factors Influencing the Decision to Participate in Section 8 Program--Potential Implementation Problems in Sector C

DESCRIPTION	AVERAGE LEVEL OF IMPORTANCE		
	Total	Metro	Non-Metro
FACTORS INFLUENCING DECISION TO PARTICIPATE IN SECTION 8 EHP			
The area had a strong need for low and moderate income housing	1.2	1.3	1.0
There were no other new housing programs available	1.4	1.4	1.5
There were no new construction programs available	1.6	1.9	1.4
Local elected officials encouraged participation	1.6	1.9	1.2
The HUD area office encouraged participation	1.6	1.8	1.3
The agency attempts to apply for all available housing programs	2.1	2.0	2.1
Local community organizations encouraged participation	1.9	2.0	1.9
The locality would have lost CDBG funds had the agency not applied	2.5	2.4	2.5
Local property owners encouraged participation	2.7	2.8	2.5
There was a high vacancy rate in the area	2.8	2.7	2.9
POTENTIAL PROBLEMS WITH THE IMPLEMENTATION OF THE SECTION 8 PROGRAM			
Finding units with three or more bedrooms	1.3	1.2	1.3
Finding units renting within the FMRs	1.4	1.6	1.3
Certified households having difficulties in searching for units	1.5	1.8	1.1
Landlords not wanting to rent to large families and/or welfare families	1.7	1.5	2.1
Finding landlords who are interested in participating	1.8	1.9	1.8
HUD supplied materials are not understood by certificate holders	1.8	1.8	1.8
Too few staff available to assist households in their search for units	1.9	1.9	1.9
Finding units that meet the housing quality standards	1.9	2.3	1.5
Getting landlords to accept conditions of lease	2.1	2.2	2.1
Explaining the program to households	2.3	2.5	1.9
Being unable to assist homeowners with this program	2.4	2.3	2.6
Explaining the program to landlords	2.5	2.5	2.5
Cannot use the program for emergency housing	2.5	2.2	2.9
Utility allowances too high	2.4	2.6	2.1
Utility allowances too low	2.6	2.5	2.8
Finding lower income households as defined by Section 8	2.7	2.4	2.9
Too few minority applicants	2.4	2.8	2.0
Finding enough people to apply so that the ACC allocation is fully used	2.6	2.8	2.4
Training staff to administer the program	2.7	2.7	2.6
Conducting inspections in timely fashion	2.7	2.7	2.8
Community and/or landlord concern about potential applicants from outside the community	2.7	2.7	2.6
Finding very low income households as defined by Section 8	3.0	3.0	3.0

Legend 1.0 - very
2.0 - somewhat
3.0 - not at all

5. ANALYSIS OF PHA FUNCTIONS

This section analyses PHA administration of the Section 8 program on a function-by-function basis. The objective of this section is to understand program performance, costs, methods, and effectiveness as they relate to each administrative function.

5.1 Introduction

The discussion of each function addresses, in parallel, five questions:

- What are the objectives of the function?
- What are the methods and special efforts used by PHAs to accomplish the function objectives?
- What are the appropriate service indices, and what level of service is attained?
- What are the preliminary and ongoing costs to the PHAs?
- When appropriate, what is the relative efficiency of the methods used by the PHAs to meet function requirements?

5.1.1 Administrative Functions

The functions performed by the PHAs to administer the Section 8 program are: outreach; certification; client services; inspection; and payments. These functions are defined and analyzed in subsequent subsections.

The administrative functions are separated into preliminary (intake) and ongoing (maintenance) efforts. The preliminary effort is that performed in taking participants into the program to occupy the contracted units initially. This includes all effort up to the point of signing a lease. The ongoing effort is that performed after initial lease-up to maintain the operation of the program. Preliminary and ongoing efforts occur concurrently.

All functions have both preliminary and ongoing efforts except for the payments function, which is only an ongoing effort. With this distinction, the analysis can project cost as the program reaches maturity and can normalize costs observed to date within HUD definitions.

5.1.2 Methodology

The analysis of the functions is structured by a conceptual model of the administrative operation of a PHA (Figure 5-1). The basic elements of the programmatic results include the analysis of:

- the performance of each administrative service function (output);
- the resources expended and the costs associated with performance of each service function (input); and

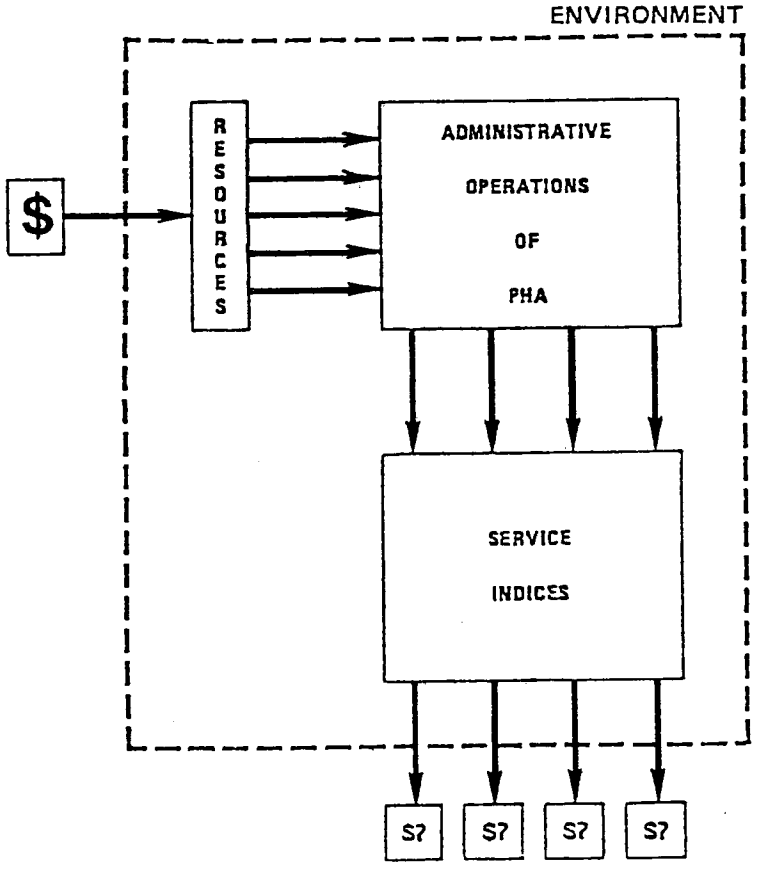

Figure 5-1: Analytical Structure of the Conceptual Model of the PHA Administrative Operation

- administrative efficiency in performing each function (input/output).

The operation of each PHA is viewed as a well-defined system for converting resources into specific Section 8 services. The factors or independent variables that describe the PHA setting vary from one locality to the next; site characteristics affecting costs and expenditure of resources include:

- demographic/geographic characteristics (e.g., Metro/non-Metro, population density);
- scale of operations (e.g., ACC size, units leased);
- time or experience factor (e.g., months since ACC date, years in housing programs, and level of related activity); and
- maturity of the Section 8 program (e.g., lease-up).

The costs, resources, and outputs are related to these independent variables, which we a priori sense as influencing those costs, resources, and outputs. Statistical tests of the relationships are also shown.

5.1.3 How Costs are Allocated to Functions

Special on-site procedures were used to determine the hours and cost information on functions. The hours and costs were attributed to each function by preliminary and ongoing effort. When data were not available, they are derived from the corresponding module of the interview questionnaire.

To estimate the total Section 8 direct labor hours for each employee, the procedure developed, from records of employees working on the program, the number of months (elapsed) assigned to Section 8 and the percent of elapsed time spent on Section 8. The estimated direct labor hours are distributed to each function for preliminary and ongoing effort. The results are used to derive total direct hours applied to each function. To estimate total direct costs for each function, annual salary, fringes, and nonpersonnel direct costs are combined.

5.1.4 How Costs are Represented

Program function costs are represented by direct personnel hours and total direct costs separated by preliminary and ongoing efforts.

Both direct hours and direct costs are normalized for each function by converting to:

- cost per unit leased for preliminary functions; and
- cost per leased unit-month for ongoing functions.

The costs per unit leased represent average costs incurred by each function in bringing participants into the program to occupy the units. The costs per leased unit-month represent the average costs incurred by each function to maintain a unit for one month. These distinctions are made so that the costs are comparable for sites at different levels of maturity.

5.1.5 How Performance is Measured

In a quantitative sense, the performance of each PHA is measured by service indices (SI) relevant to each function performed. The SI summarizes the level of service activity within the function with respect to function objectives.

The desirability and effectiveness of various methods of performing functions depend on the function costs in relation to SI. In particular, the methods that consistently yield lower personnel hours per service level or lower direct cost per service level are the most efficient ones.

5.2 The Outreach Function

Outreach is an important role delegated to PHAs participating in the Section 8 Existing Housing Program. The objectives of the outreach function are to:

- inform eligible families of the potential housing assistance;

- encourage landlords to make their units available to the program; and

- gain public acceptance of the program.

Outreach consists of specific efforts to attract potential recipients and landlords. The objective is to encourage as many eligible families as possible to apply. Of course, mass outreach efforts attracting large numbers of ineligible families are not desirable as they would cause an unnecessary burden on other PHA functions. The objective of landlord contact is to make landlords as receptive as possible to leasing units to program recipients.

In addition to these basic aims, subsidiary PHA requirements and objectives can influence the outreach effort. Congress mandated that at least 30 percent of the families assisted through the Section 8 program be "very low-income" (less than 50 percent of the jurisdiction median income). This requirement intends to assure that those most in need of assistance will be aided. Another objective is to foster economic integration within Section 8 developments. These latter objectives may be promoted by skillful outreach effort but require coordination with other PHA functions.

5.2.1 Methods of Outreach

In attracting families and owners to the program, the PHA is required to make public announcement through newspapers and minority media and to contact local real estate and other groups to explain the program. Beyond these minimum requirements, the PHA is expected to organize a campaign to attract sufficient numbers in a wide cross-section. If all these requirements are to be met, considerable flexibility in the type and scope of methods used for outreach is necessary.

Table 5-1 displays the methods used by PHAs to attract potential recipients and the effectiveness of each method as perceived by the PHAs. Most of the methods are used in some degree by all PHAs, but radio or TV advertising, church and community organization contact, and the public housing waiting list are used less uniformly than others. Note that Table 5-1 reflects a fair correlation between the use of the method and its perceived effectiveness. (The use of the public housing waiting list is an anomaly: it is perceived to be the most effective method of outreach yet is used by the smallest number of PHAs--only 47 percent.)

Table 5-1

Use and Effectiveness (Perceived) of Outreach Methods to Potential Recipients in Sector C

METHODS OF OUTREACH	METRO LOCATION		NON-METRO LOCATION		ALL PHAs	
	PERCENT USING METHOD	EFFECTIVENESS	PERCENT USING METHOD	EFFECTIVENESS	PERCENT USING METHOD	EFFECTIVENESS
A. Radio or TV Advertising	49	5.9	88	5.9	67	5.9
B. Newspaper Advertising	89	8.6	100	6.8	94	7.7
C. News Stories	92	7.3	100	6.9	96	7.1
D. Mailings, Flyers, Brochures, Posters	88	7.8	100	6.4	93	7.2
E. Church and Community Org. Contact	95	6.8	54	5.2	76	6.4
F. Contact with Social Service Agencies	92	7.4	100	5.5	95	6.5
G. Contact with Realtors, Landlords, and Property Managers	87	5.7	100	6.6	93	6.2
H. Public Housing Waiting List	54	8.6	38	6.7	47	7.9

(N=30)

Effectiveness Legend:

0 - not at all effective
5 - somewhat effective
10 - very effective

Table 5-2 displays the methods used by PHAs to encourage landlord participation in the Section 8 program. This table reflects a wider variance in the methods used and their perceived effectiveness.

Table 5-2

Use and Effectiveness (Perceived) of Outreach Methods to Landlords in Sector C

OUTREACH	METRO LOCATION		NON-METRO LOCATION		ALL PHAs	
	PERCENT USING METHOD	EFFECTIVENESS	PERCENT USING METHOD	EFFECTIVENESS	PERCENT USING METHOD	EFFECTIVENESS
A. Radio or TV Advertising	45	3.6	72	2.0	57	2.6
B. Newspaper Advertising	81	6.4	100	5.6	90	6.0
C. Ads in Real Estate Publications	35	3.4	12	10.0	25	4.8
D. News Stories	83	5.7	88	7.8	85	6.7
E. Flyers, Brochures, or Posters	55	6.3	84	7.5	68	7.0
F. Personal Contact With Real Estate Orgs.	88	6.7	86	5.0	87	5.9
G. Personal Contact With Owners or Managers	93	9.0	100	9.4	97	9.2

(N=30)

Effectiveness Legend:

0 - not at all effective
5 - somewhat effective
10 - very effective

Radio and TV advertising, used by 57 percent of the PHAs, and advertising in real estate publications, used by 25 percent of the PHAs, were rated less than satisfactory. The use of radio or TV

advertising for landlord outreach is probably somewhat less than the 57 percent indicated because it should be attributed to recipient outreach when not directed specifically to landlords.

Personal contact with owners or managers of potential Section 8 units is the most widely used method of outreach for attracting landlords. This method achieved the highest effectiveness rating, with nearly all PHAs terming it "very effective."

Table 5-3 displays the primary method of outreach reported by the PHAs. There is a significant difference in methods among agencies according to their location. Sixty-three percent of the PHAs in a Metro reported newspaper advertising as the primary method of outreach. Of the PHAs not in a Metro, only 16 percent reported newspaper advertising as the primary method; the majority reported that personal contact was the primary method of outreach.

Table 5-3

Primary Method of Outreach to Recipients in Sector C

METHOD OF OUTREACH	PERCENT OF PHAs WITH PRIME METHOD OF OUTREACH BY PHA LOCATION		
	METRO LOCATION	NON-METRO LOCATION	All PHAs
1. Newspaper Advertising	63	16	42
2. Personal Contact	1	56	26
3. Word of Mouth	21	3	13
4. Contact with Social Service Agencies	8	12	10
5. Contact with Realtors and Landlords	0	12	6
6. Radio or Television Advertising	4	0	2
7. News Stories	1	0	1
8. Special Mailings	1	0	1
ALL METHODS	100	100	100

(N=30)

The primary outreach method is somewhat less correlated to population of the jurisdiction. In larger areas, mass media approaches, including radio and TV advertising, are preferred.

5.2.2 Outreach Performance

Performance is more difficult to measure objectively in outreach than in any other function. The degree to which the eligible population is attracted to the program, consistent with other outreach objectives, is a basic measure.

Table 5-4 displays the special outreach efforts made by PHAs to attract some types of household. Most agencies have special outreach efforts for elderly and minority households.

Table 5-4

Special Outreach Efforts by PHAs in Sector C

PHA LOCATION	PERCENT OF PHAs MAKING SPECIAL OUTREACH EFFORTS TO GROUPS						
	Elderly Households	Three or More Bedroom Households	Very Low Income Households	Low Income Households	Minority Households	"Expected to Reside" Households	Other Households
METRO	69	8	17	25	68	0	18
NON-METRO	66	62	74	74	71	34	0
All PHAs	68	32	42	47	69	15	10

(N=30)

For a few of the household types, the distinction between the efforts made by PHAs at Metro locations and at non-Metro locations is significant. For other relevant factors, such as population of jurisdiction or ACC size in units, significant distinctions were not observed.

No efforts to encourage households "expected to reside" in the area to apply were reported at Metros, whereas 34 percent of non-Metro PHAs reported special efforts. More dramatically, a small minority of PHAs located in a Metro directed efforts toward three or more bedroom families or very low income families, while most PHAs not in Metros reported special efforts for these groups.

These distinctions reflect the different composition of eligible families in the areas rather than the degree of compliance with program objectives. That is, at non-Metro locations, the PHAs were pressed to lease to large families and low income families for program requirements, given the shortage of either eligible families or available units for the group.

A logical way to normalize outreach activity is by number of eligible families. Table 5-5 indicates the level of outreach activity--inquiries, applications, and certifications--per eligible family. Certifications are included to measure "successful" applications. Outreach efforts attracting large numbers of ineligible families should not be credited with high performance.

Table 5-5

Outreach Performance in Sector C

PHA CHARACTERISTIC		ACTIVITY PER ELIGIBLE FAMILY IN JURISDICTION		
Factor	Level	Number of Inquiries per Eligible Family	Number of Applications per Eligible Family	Number of Certifications per Eligible Family
ACC SIZE	0-70	.30	.24	.10
	71-130	.29	.04	.02
	131-399	.41	.34	.15
	400-999	.09	.05	.02
	Over 999	.09	.04	.03
PHA LOCATION	Metro	.40	.18	.08
	Non-Metro	.17	.12	.05
MONTHS SINCE ACC	0-3	–	–	–
	4-9	.29	.25	.11
	10-12	.11	.06	.03
	Over 12	.97	.06	.03
ALL PHAs		.20	.16	.07

The inquiries activity shown in Table 5-5 reflects the gross outreach performance of the PHAs. The activity levels are higher for PHAs in Metros than non-Metros. The apparent lower number of certifications per eligible family for the more experienced PHAs should not be interpreted as a performance trend for any agency. It simply indicates that the agencies in Section C with better performance were, coincidentally, less experienced. Surprisingly, the PHAs with the larger ACC sizes (which are located in the larger jurisdictions and are typically in Metros) have less activity than do smaller PHAs. The number of applications per eligible family measures the degree to which potential recipients are encouraged to apply. Table 5-5 indicates a lower number of applications than inquiries.

The third measure, certifications per eligible family, is the most important measure of outreach performance. Table 5-5 indicates that roughly 7 percent of eligible families have been certified for the program. The Metro locations have accounted for a larger part of the total certified.

5.2.3 Costs of Performing the Outreach Function

Table 5-6 displays the costs associated with preliminary outreach efforts for various subpopulations of PHAs. On the average, outreach costs 6.5 hours of direct personnel time per unit. Considering wages and other direct costs (such as advertising), the total direct cost for the outreach component alone is $34 to lease each unit.

Table 5-6

Costs of Preliminary Outreach Function in Sector C

FACTOR/SUBPOPULATION		PRELIMINARY COSTS PER OCCUPIED UNIT	
		Direct Person-Hours	Total Direct Cost ($)
PHA LOCATION			
	Metro	4.1	32.00
	Non-Metro	9.3	36.00
SIZE OF PHA JURISDICTION	population		
	<50K	10.3	44.00
	50K-100K	4.2	25.00
	100K-500K	3.4	23.00
	>500K	6.5	46.00
PROGRAM SCALE	ACC size in units:		
	0-70	12.3	49.00
	71-130	4.4	22.00
	131-399	3.6	25.00
	400-999	8.8	77.00
	Over 999	2.9	19.00
LEVEL OF RELATED ACTIVITY	currently administer other programs		
	YES	7.3	40.00
	NO	4.9	21.00
SECTION 8 EXPERIENCE	months since ACC		
	0-3	.	
	4-9	8.7	34.00
	10-12	4.7	38.00
	>12	2.0	13.00
PROGRAM STATUS	% leased of ACC		
	<40%	12.8	62.00
	41-65%	5.0	23.00
	66-90%	3.3	20.00
	>90%	3.1	25.00
AVERAGE		6.5	33.51

The most significant finding is that, although non-Metro PHAs spend more outreach time per unit, the total direct cost per unit is about the same as for Metro PHAs. This result is explained by the difference in primary methods of outreach. PHAs in Metro locations often concentrate on a mass media approach, whereas non-Metro PHAs rely more heavily on personal contact. That is, the Metro location efforts result in more nonpersonnel direct costs, and the non-Metro efforts are more PHA-labor intensive.

Surprisingly, there is no evidence that outreach costs are higher in areas with populations under 50,000 and over 500,000 than in areas with populations between 50,000 and 500,000.

As with most preliminary functions, the outreach costs correlate with program experience and lease-up status. Many outreach costs are incurred quite early in program development. As a result, agencies with a larger number of units leased have a wider base for allocation of the outreach expenditures. Since number of months from signing ACC correlates strongly with percent lease-up, this phenomenon is observed for both factors.

Table 5-7 indicates the ongoing costs to maintain units already leased. Roughly 26 hours are required per 100 leased units per month, corresponding to a little over $1 per unit in direct costs.

Table 5-7

Costs of Ongoing Outreach Function in Sector C

FACTOR/SUBPOPULATION		ONGOING COSTS PER OCCUPIED UNIT-MONTH	
		Direct Person-Hours	Total Direct Cost ($)
PHA LOCATION			
	Metro	.08	.83
	Non-Metro	.47	1.94
SIZE OF PHA JURISDICTION	population		
	< 50K	.56	2.46
	50K-100K	.10	.98
	100K-500K	.03	.19
	>500K	.11	.86
PROGRAM SCALE	ACC size in units:		
	0-70	.50	1.81
	71-130	.25	1.29
	131-399	.09	1.09
	400-999	.14	1.09
	Over 999	.06	.41
LEVEL OF RELATED ACTIVITY	currently administer other programs		
	YES	.19	1.28
	NO	.39	1.42
SECTION 8 EXPERIENCE	months since ACC		
	0-3	-	-
	4-9	.41	1.71
	10-12	.10	1.10
	>12	.05	.31
PROGRAM STATUS	% leased of ACC		
	< 40%	.34	1.76
	41-65%	.42	1.99
	66-90%	.05	.29
	>90%	.08	.66
AVERAGE		.26	1.33

The same factors that explain preliminary costs appear to influence personnel hours and direct costs of ongoing efforts. Experience and program status should have less impact; the apparent trends are less dramatic and not statistically significant. However, the direct person-hours and costs appear to decrease per occupied unit month as the ACC size in unit increases.

5.2.4 Relative Efficiency of Outreach Procedures

Previous subsections discussed the different procedures used by PHAs to accomplish the outreach function. For different PHAs the outreach costs per unit of outreach performance can be related to the primary method of outreach. This procedure measures the relative efficiency of methods independently of PHA perceptions of effectiveness.

Table 5-8 displays the observed efficiency of various methods of outreach. The efficiency of methods depends on the PHA location and other characteristics. Although the table indicates a rank order of methods by observed effectiveness, the best plan is a coordinated effort using many different methods.

Table 5-8

Relative Efficiency of Outreach Procedures in Sector C

REPORTED PRIMARY METHOD OF OUTREACH	RANK ORDER OF EFFICIENCY (MINIMUM DIRECT COST PER SERVICE INDEX)		
	SI = Percent Inquiries per Eligible Family	SI = Percent Applications per Eligible Family	SI = Percent Certifications per Eligible Family
METRO LOCATION			
Word of Mouth	1	1	1
Contact with Social Service Agencies	2	2	2
Newspaper Ads	3	3	3
Radio or TV	4	4	4
NON-METRO LOCATION			
Contact with Realtors and Landlords	3	2	1
Newspaper Ads	1	1	2
Personal Contact	2	3	3
Contact with Social Service Agencies	4	4	4

Generally, the smaller PHAs and the non-Metro PHAs have success with personal contact to landlords, owners, and potential recipients. In larger jurisdictions, personal contact is not always practical, and mass media approaches are more economical. Although "word-of-mouth" ranks first in cost-effectiveness at Metro locations, it may not be viewed as a method of outreach. Typically, word of mouth information is driven by community knowledge of the program derived from other outreach methods.

5.2.5 Conclusions

This analysis has shown that the outreach function represents a significant 24 percent of total direct costs for Section 8 intake of units and 16 percent of total direct costs for program maintenance (Table 5-26). The various outreach methods used by PHAs have attracted an average 8 percent of eligible families.

The analysis reveals that some methods of outreach are more effective than others, depending on the characteristics of the location. At non-Metro sites, the emphasis should be on personal contact with realtors, landlords, and potential recipients. Newspaper advertising is effective for attracting recipients but not landlords.

At Metro locations, the PHAs should emphasize contact with landlords and owners of potential units. Outreach to attract potential recipients should focus on newspapers or other mass media, especially in the larger jurisdictions.

Some very small PHAs may require assistance to develop a coherent outreach effort. Many of these PHAs have limited experience with housing programs like Section 8. Another dilemma is that at small PHAs the most effective outreach methods are labor-intensive, yet the staffing problems are particularly acute.

In all cases, PHAs should try to gain public acceptance of the program as soon as possible and before implementation. The most effective and least expensive outreach method is that which is generated by public approval, word of mouth, and evidence of program success.

5.3 The Certification Function

The certification function involves the effort by the PHA to determine and certify the eligibility of potential recipients. This

includes reexamining family income and composition annually. For new recipients the certification effort is made from the time the potential recipient wishes to apply for assistance until he/she is either rejected or certified to look for an acceptable unit.

The objective of certification is to enroll selected participants into the program as efficiently as possible. All certified families must be clearly eligible; however, in issuing certificates, the PHA may give priority to special groups.

5.3.1 Methods of Certification

All PHAs sampled responded that they help potential recipients complete an application. The PHAs consider the forms too complex, considering the educational level of most applicants. In taking the applications, the PHA can provide orientation of potential recipients to the program. It takes the average applicant roughly 30 minutes to complete the application with the PHA's help.

5.3.1.1 Preapplications

PHAs have an option to use a preapplication process. Preapplications are a short form of the application and are used to screen out families that are clearly ineligible as early as possible.

Forty-one percent of the PHAs use a preapplication to perform preliminary screening of applicants. Preapplications are used more frequently in Metro locations (43 percent use preapplications) than in non-Metro locations (40 percent use preapplications). Of sites sampled with ACC size greater than 750 units, only 21 percent use preapplications.

Overall, a reported average of 34 percent of applicants are screened out by preapplication. This represents a significant reduction in load in the full application process. The percent screened out by preapplication varied among PHAs. PHAs at Metro locations screened out only 22 percent of applications, significantly less than the 50 percent screened out by PHAs at non-Metro locations.

The preapplications take the potential recipient significantly less time to complete than the 1/2 hour required for the full application. PHAs reported a range of from 2 to 30 minutes needed to complete the preapplications. The average time reported is approximately 9 minutes

for each applicant. About 40 percent of the PHAs process the preapplication while the potential recipient waits.

5.3.1.2 Verification

PHAs vary in the amount of effort applied to verify information on the application. The percent of applications that require verification and the number of verification checks performed determine the time necessary to process an application.

Of the applications received, an average of 6 percent are determined to be ineligible without verification of the information; less than 5 percent are determined ineligible when the preapplication is used. The percentage screened out before verification varied by site location, with PHAs in Metros rejecting 3 percent and non-Metro locations rejecting 9 percent. This is surprising because non-Metro locations using preapplications were able to screen out a significantly higher proportion when preapplications were used. Generally the non-Metro locations rejected applicants after verification at twice the rate of PHAs in Metros.

Virtually all PHAs require documentation to certify the eligibility of applicants. Ninety-two percent of the PHAs surveyed report that third party verification is normally required.

5.3.1.3 Extensions

Once certified, the potential recipient must locate, or identify, a suitable dwelling unit within 2 months of verification. Unfortunately, 22 percent of certified households do not find acceptable Section 8 units within 2 months. As a result, PHAs often exercise their option to extend the time limits.

Of the expired certificates, 29 percent are extended on the average. Generally, the PHAs in Metros have been more lenient, granting an average of 33 percent extensions, while the non-Metro locations have granted 21 percent extensions.

The issue of extensions is important because PHAs cannot have more active certified families than units allocated by the ACC. Thus, by extending certificates a PHA might be denying certificates to potential recipients who would be more successful and more diligent in looking for an acceptable unit. About 15 percent of PHAs, assuming that some certified families will not find units, at times issue more

certificates than they have units. Although this practice is clearly against HUD guidelines, the approach has merit and should be reviewed.

5.3.2 Certification Performance

Certification performance is measured by how efficiently PHAs enroll eligible participants into the program. The average PHA has issued hundreds of certificates.

5.3.2.1 Priorities

One measure of performance is the priority that agencies give to special groups in issuing certificates. Table 5-9 displays the percent of agencies that have given priority to each special group. Priority is given most consistently to elderly households and to present community residents.

Table 5-9

PHA Priorities in Issuing Certificates to Special Groups in Sector C

SPECIAL GROUPS	PERCENT OF AGENCIES GIVING PRIORITY TO SPECIAL GROUPS
1. Elderly households	56
2. Present community residents	55
3. Other groups	54
4. Very low income households, beyond requirements	43
5. Low income households	43
6. Minority households	37
7. Government displaced households	36
8. Three or more bedroom households	35
9. Households "expect to reside" within 3 years	23

(N=30)

Table 5-9 indicates that some agencies, but not most, issue certificates selectively to reflect program objectives. About one-fourth of the agencies have established a maximum percentage of very low income households that they will certify. The percentage ceiling ranged from 30 to 50 percent, with an average of 34 percent.

Some agencies draw effectively from the public housing waiting list. Approximately 7 percent of applications are received this way.

5.3.2.2 Level of Activity

General measures of certification activity include the number of applications processed, certificates issued, and recertifications processed. Table 5-10 displays some of these measures.

Table 5-10

Certification Activity in Sector C

STATISTIC	PHA LOCATION		
	METRO	NON-METRO	All Locations
Applications per preapplication (for agencies using preapplication)	.77	.50	.66
Certificates issued per application by use of preapplication	.50	.75	.62
YES	.52	.88	.68
NO	.49	.66	.57
Applications per unit leased	4.4	3.5	4.0
Certifications per unit leased	1.9	2.4	2.1

Generally, there is a higher rate of certification (or lower rate of rejection) in the non-Metro areas. The preliminary screening of applicants enables agencies using preapplications to achieve higher rates of certification in other areas. Overall, 62 percent of complete applications result in certification.

Other interesting statistics are based on the activity observed in relation to units occupied. Table 5-10 indicates that an average of four applicants are needed for each unit leased up. More than two certifications per unit leased is the current average. Because there is a time lag between certification (or application) and lease-up for any recipient, these statistics decline with time.

5.3.3 Costs of Performing the Certification Function

Table 5-11 displays the costs associated with preliminary certification efforts for various subpopulations of PHAs. These reported costs correspond to agencies at various stages of program development; costs at "steady state" may vary systematically.

Table 5-11

Costs of Preliminary Certification in Sector C

FACTOR/SUBPOPULATION		PRELIMINARY COSTS PER OCCUPIED UNIT	
		Dir. Pers. Hrs.	Total Direct Cost ($)
PHA LOCATION			
	Metro	7.3	41.74
	Non-Metro	7.6	26.85
SIZE OF PHA JURISDICTION	population		
	<50K	9.0	37.07
	50K-100K	5.5	33.17
	100K-500K	7.3	33.04
	>500K	7.0	38.30
PROGRAM SCALE	ACC size in units:		
	0-70	10.8	42.34
	71-130	4.7	22.67
	131-399	8.1	44.11
	400-999	10.3	53.24
	Over 999	6.0	32.56
LEVEL OF RELATED ACTIVITY	currently administer other programs		
	YES	8.7	39.80
	NO	5.1	25.86
SECTION 8 EXPERIENCE	Months since ACC		
	0-3	—	—
	4-9	7.8	30.33
	10-12	7.5	40.84
	>12	5.6	36.77
PROGRAM STATUS	% leased of ACC		
	<40%	11.8	46.51
	41-65%	6.9	33.32
	66-90%	5.6	33.88
	>90%	3.9	21.69
AVERAGE		7.4	35.03

On the average, 7.4 hours of direct personnel time per unit are required for certification. Considering wages and material (e.g., forms, paper) costs, the certification component of total direct cost is $35 per leased unit.

Unlike outreach, there is no significant distinction in direct personnel hours according to PHA location (Metro versus non-Metro) in the certification function. Surprisingly, hours per unit for Metro PHAs in the sample were slightly (the figure is not statistically significant) less than average, while total direct costs were significantly higher ($42 versus $27 per unit). This result is explained by the higher wage rates for certification personnel in Metro locations.

As with most preliminary functions, the costs correlate with program experience and lease-up status, but in certification the trend is less dramatic than in outreach. For certification, the actual expenditures are incurred more gradually as the program achieves steady-state lease-up.

Table 5-12 indicates the ongoing costs of certification to maintain units that have already been leased. This effort includes the certification of new families for vacated units and the annual recertification of families in occupied units. The reported costs correspond to agencies at various stages of program development; costs after the first year of operation may vary systematically.

Table 5-12

Costs of Ongoing Certification in Sector C

FACTOR/SUBPOPULATION		ONGOING COSTS PER YEAR FOR OCCUPIED UNITS	
		Dir. Pers. Hrs.	Total Direct Cost ($)
PHA LOCATION			
	Metro	1.0	6.24
	Non-Metro	3.7	13.32
SIZE OF PHA JURISDICTION	population		
	< 50K	4.4	15.00
	50K-100K	0.4	0.60
	100K-500K	1.6	10.20
	>500K	0.7	5.28
PROGRAM SCALE	ACC size in units:		
	0-70	4.2	13.54
	71-130	2.3	12.12
	131-399	.3	1.22
	400-999	.9	6.11
	Over 999	2.0	6.39
LEVEL OF RELATED ACTIVITY	currently administer other programs		
	YES	1.7	8.40
	NO	3.2	10.44
SECTION 8 EXPERIENCE	Months since ACC		
	0-3	—	—
	4-9	3.2	11.52
	10-12	0.6	4.20
	>12	2.9	12.48
PROGRAM STATUS	% leased of ACC		
	< 40%	2.4	9.36
	41-65%	3.1	7.92
	66-90%	0.7	7.56
	>90%	2.0	10.44
AVERAGE		2.2	9.48

Roughly 2.2 hours are required per leased unit per year, corresponding to about $9.48 per unit in direct costs. Agencies in operation more than a year must recertify substantial numbers of participants enrolled the prior year. The annual cost for these agencies is $12.48 per unit.

As observed in the outreach function analysis, the sampled sites that are currently administering other programs have incurred higher or nearly equal costs for the preliminary effort and lower costs for the ongoing effort than sites administering only Section 8.

5.3.4 Relative Efficiency of Certification Procedures

A basic option discussed for certification methods is the use of preapplications. Because different areas have experienced different rates of units leased per certification and different rates of certification per application, more detail than total certification dollars per unit leased is required to measure relative efficiency.

Table 5-13 displays the certification direct cost per certificate issued for subpopulations by use of the preapplication process. The reported costs average 3.6 hours, or $18, per certification.

Table 5-13

Relative Efficiency of Preapplication Process
for Certification Function

FACTOR	CERTIFICATION (HOURS) AND COST PER CERTIFICATE BY METHOD OF CERTIFICATION		
	Use Preapp.	Do Not Use Preapp.	Sector C
PHA LOCATION			
Metro	(4.3) $21	(3.3) $23	(3.7) $22
Non-Metro	(2.3) $ 9	(4.3) $16	(3.5) $13
ACC SIZE			
0-70	(4.5) $30	(4.9) $20	(4.9) $22
71-130	(2.5) $ 9	(3.0) $18	(2.8) $14
131-399	(3.8) $18	(3.6) $24	(3.9) $21
400-999	(5.0) $22	(2.1) $16	(4.3) $21
Over 999	(4.4) $29	(1.7) $ 7	(2.6) $15
NUMBER MONTHS SINCE ACC			
0-3	–	–	–
4-9	(2.4) $10	(4.9) $21	(3.6) $15
10-12	(4.5) $20	(3.1) $22	(3.8) $21
Over 12	(6.1) $45	(2.3) $14	(3.2) $21
ALL PHAs	(3.4) $16	(3.8) $19	(3.6) $18

Generally, a preapplication process is more efficient for locations with a high rate of ineligible applicants. A preapplication process has been more efficient for non-Metro PHAs; that is, costs for a certification are lower for agencies that use preapplications. On the other hand, the very large agencies not using preapplications have experienced lower costs per certification.

5.3.5 Conclusions

The analysis of the certification function reveals some areas for improvement of the certification and application process. Specifically, improvements can aim to:

- simplify forms and procedures;
- develop better screening procedures; and
- provide more guidelines on certification requirements.

Eleven of the 30 agencies interviewed recommend simplification of certification forms and procedures. The agencies feel that the complexity of the existing forms causes excessive effort on their part to help potential recipients apply for assistance. All agencies indicated that they help applicants complete the forms.

Three agencies recommended the use of better screening procedures to reduce the load on the certification function. This can be achieved in two ways:

- fine-tuning of outreach to attract only those households that are likely to be eligible; and
- preliminary evaluation of applicants before the complete application is taken.

The data do not indicate whether a preapplication process is advisable for particular groups. Of course, PHAs receiving large numbers of ineligible applications should consider the cost of using preapplications. The PHA has some control over the rate of ineligibility through its outreach methods; thus, the proper balance between the effective screening provided by outreach and the preliminary review of applicants must be assessed.

Eight of the 30 agencies surveyed would like more guidelines from HUD on certification requirements. Many requirements are difficult to interpret for households with "unusual" conditions that are applying for assistance. Because all possible conditions cannot be represented in guidelines, the PHAs should obtain rapid feedback and verification of eligibility from the HUD area office.

5.4 The Client Services Function

Client services, the most flexible function, is also the function most diverse in requirements. For both the intake and maintenance of program units, it involves extensive services both to landlords and to recipients.

5.4.1 Recipient Services

Table 5-14 displays the range of services provided by PHAs to program recipients, including:

- explaining the program;
- finding units;
- negotiating contract rents; and
- providing other services.

Table 5-14

Client Services Provided by PHAs to Recipients in Sector C

SERVICE	PERCENT OF PHAs PROVIDING SERVICE (N=30)	AVERAGE PERCENT OF CERTIFICATE HOLDERS RECEIVING SERVICE IN PHAs PROVIDING SERVICE
INFORMATION		
Formal briefings for certificate holders	84	100
Distribute certificate holders packet	89	100
Information explaining program to landlords	73	*
FINDING UNITS		
Provide additional service to help certify units	81	100
Provide list of available units and landlords	66	100
Referral to a specific unit	100	17
Help certificate holder look for units:	60	42
Elderly	54	*
Handicapped/disabled	59	*
Single parents with children	52	*
Families without transportation	52	*
Other groups	48	*
NEGOTIATION		
Staff negotiates contract rent with landlord	92	44
OTHERS		
Arbitration in tenant-landlord disputes	77	*
Referral services for other problems	92	*
Review contracts	100	100
Review leases	100	100
Handle inquiries/complaints	100	*

* Data not collected.

5.4.1.1 Information Services

Most PHAs provide formal briefings for certificate holders to orient them to the program. About half of the PHAs perform the briefings in groups, and half perform them in individual sessions. The following topics are covered in the briefings (percent of PHAs including topic):

- general program information (100 percent);
- how to find a suitable unit (100 percent);
- housing standards used in Section 8 (100 percent);
- determining what a unit will cost (75 percent);
- how to negotiate lease and rent (71 percent); and
- fair housing laws and equal opportunity support (94 percent).

The average briefing takes about 55 minutes.

Eighty-nine percent of PHAs provide, often at the briefing, a certificate holder's packet of information. Taking into consideration the clients' responses, the PHAs respond that these packets are only somewhat useful. The major complaint is that the packets are an unnecessary expense; the clients cannot understand them and do not bother to use them.

5.4.1.2 Finding Units

The most difficult aspect of the program for potential recipients is usually finding a suitable unit to occupy. Twenty-nine percent of certified households are unable to find acceptable Section 8 units within 2 months; 71 percent of all certificate holders eventually find units. This means that only a small percent of certificates extended result in certificate holders finding units.

For some groups, finding a unit is more difficult than for others. Eleven percent of the elderly and 9 percent of the handicapped or disabled cannot find units within the first 2 months. The problem is really more severe than these percentages indicate. Many of the households that do find units are currently in acceptable units and do not need

to search. Therefore, the percent of elderly, handicapped, or disabled households which moved and did not find units within the first 2 months is larger than the above percentages indicate.

Families needing three or more bedrooms are the least successful in finding units, with 52 percent unable to locate an acceptable unit within the first 2 months. Interviews revealed that less help in finding units is given to large households than other households. The problem is exacerbated by the low fair market rents and the unavailability of large units.

5.4.1.3 Negotiation

The vast majority of PHAs help negotiate the contract rent with the landlord. Forty-seven percent of PHAs usually attempt to negotiate the rent below the FMR. Many PHAs do not wish to negotiate for lower rents because it alienates landlords. The impression of many agencies is that the FMRs are too low anyway, especially for large bedroom units.

Figure 5-2 indicates the rent levels attained for Section 8 occupied units. The rent levels reflect, in part, the efforts of PHA negotiations with landlords. Rents below or at the FMR were attained in the vast majority of cases for efficiencies, one-bedroom, and two-bedroom units occupied. However, a substantial proportion of large units were rented above FMR.

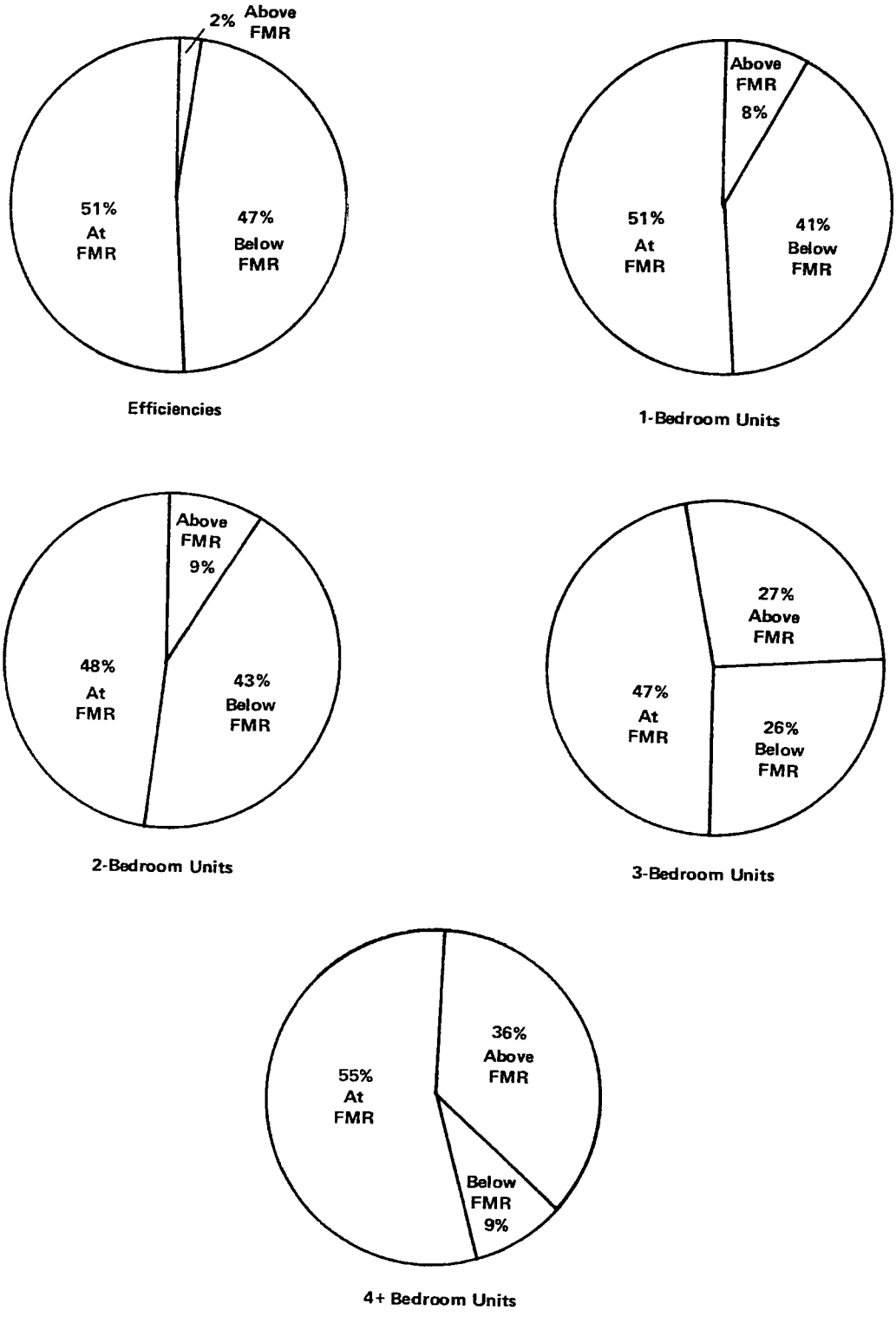

Figure 5-2: Rent Levels of Section 8 Occupied Units

These trends reveal the difficulty in leasing up allocations for large bedroom units. Of the units with four or more bedrooms, only 9 percent were rented below FMR, and as much as 36 percent of the units occupied were rented above the FMR.

5.4.1.4 Landlord Services

Table 5-15 displays the range of services provided by PHAs for landlords. The majority of PHAs provide briefings and information packets to potential landlords. Like the recipient packets, the landlord packets were considered only somewhat useful. The landlord briefings are conducted individually for the most part. The briefings average 40 minutes.

Table 5-15

Client Services Provided by PHAs to Landlords in Sector C

SERVICE	PERCENT OF PHAs PERFORMING SERVICE (N=30)
Provide formal briefing to landlords	56
Provide information packet	69
Screening of tenants based on landlord criteria	60
Preinspection of units	92
Financial assistance for repairs	7
Other services	20

Sixty percent of PHAs screen potential tenants on landlord criteria in some cases. The vast majority of PHAs also help landlords find new tenants for vacated Section 8 units.

Some agencies reported financial aid to landlords for repairs. More typically, PHAs encourage landlords to make repairs by allowing rents that are within FMR limitations but higher than initially requested by the landlord. Cooperative landlords have used the additional revenue to pay for the repairs and improvements necessary to comply with Section 8 housing requirements.

PHAs have the responsibility of handling eviction requests by landlords. Although most PHAs reported no eviction requests, the number reported ranged from zero to 40. Most evictions requested were allowed by the PHAs under Section 8 regulations.

5.4.2 Costs of Performing the Client Services Function

Table 5-16 displays the costs associated with preliminary client services for various subpopulations of PHAs. These are costs of agencies at various stages of program development; costs at "steady state" may vary systematically.

Table 5-16

Costs of Preliminary Client Services in Sector C

		PRELIMINARY COSTS PER OCCUPIED UNIT	
		Dir. Pers.-Hrs.	Total Direct Cost ($)
PHA LOCATION			
	Metro	6.4	38
	Non-Metro	13.5	48
SIZE OF PHA JURISDICTION	population		
	< 50K	12.4	46
	50K-100K	8.2	40
	100K-500K	8.3	39
	>500K	6.0	41
PROGRAM SCALE	ACC size in units:		
	0-70	16.3	58
	71-130	7.3	31
	131-399	7.0	38
	400-999	11.3	72
	Over 999	4.2	21
LEVEL OF RELATED ACTIVITY	currently administer other programs		
	YES	8.7	41
	NO	11.5	45
SECTION 8 EXPERIENCE	months since ACC		
	0-3	—	—
	4-9	12.3	45
	10-12	7.7	44
	>12	3.5	23
PROGRAM STATUS	% leased of ACC		
	<40%	13.1	57
	41-65%	12.9	51
	66-90%	4.5	26
	>90%	4.1	23
ALL PHAs		9.6	42

On the average, 9.6 hours of direct personnel time were applied per unit for client services. This corresponds to more than $40 per unit for total direct costs attributed to the client services function.

The cost estimates for client services are susceptible to sources of error beyond estimates for other functions. Clients services are flexible in requirements and difficult to document and may represent a residual account for some PHAs that allocate costs to functions. Thus, the estimate of personnel hours for client services may be inaccurately reported as total staff time on the program, excluding direct hours for other functions and including idle time which should not be applied to direct costs.

These estimation difficulties explain why client services is the only preliminary function for which reported preliminary costs for PHAs currently administering other programs are less than costs for PHAs administering only the Section 8 program. That is, PHAs also administering other programs have less idle time, on the average, to allocate to client service hours than do PHAs administering only the Section 8 program.

Many of the apparent trends are explained by the estimation problem for client services. There is a dramatic difference in direct cost per direct hour for Metro ($5.94) versus non-Metro locations ($3.56).

Table 5-17 displays the ongoing costs for client services per unit annually. These costs correspond to agencies at various stages of program development; after the first year of operation, costs may vary systematically.

Table 5-17

Costs of Ongoing Client Services in Sector C

FACTOR		ANNUAL ONGOING COSTS PER OCCUPIED UNIT	
		Dir. Pers. Hrs.	Total Direct Cost ($)
PHA LOCATION			
	Metro	2.9	20
	Non-Metro	9.1	30
SIZE OF PHA JURISDICTION	population		
	< 50K	10.3	26
	50K-100K	3.0	28
	100K-500K	2.5	16
	>500K	3.6	21
PROGRAM SCALE	ACC size in units:		
	0-70	14.3	47
	71-130	3.2	15
	131-399	2.8	17
	400-999	1.5	12
	Over 999	4.5	24
LEVEL OF RELATED ACTIVITY	currently administer other programs		
	YES	2.8	14
	NO	11.3	43
SECTION 8 EXPERIENCE	months since ACC		
	0-3	—	—
	4-9	8.4	27
	10-12	2.4	13
	>12	4.7	35
PROGRAM STATUS	% leased of ACC		
	< 40%	3.1	13
	41-65%	10.8	29
	66-90%	3.6	28
	>90%	2.8	19
ALL PHAs		5.8	23

On the average, 5.8 hours of personnel time are required to maintain an occupied unit for a year, corresponding to $23 in total direct costs. Costs ($14 per unit) for agencies currently administering other programs were significantly lower than costs ($43 per unit) for agencies administering only Section 8.

5.4.3 Conclusions

The analysis of client services has shown that this function has more variance in level of activity and costs than do other functions. Typically, the agencies have used any idle time available to help recipients and landlords participate in the program.

For recipient services, many PHAs feel that increase in the FMRs would be a great help. With higher FMRs, the PHAs could spend less time negotiating contract rents and helping certificate holders find units. Certificate holders could perform more of these functions with less help from the PHA.

Many PHAs would like to increase their services to clients in other areas, especially information services. In most cases, this would require increased staffing for Section 8.

5.5 The Inspection Function

The inspection function involves the examination of units prior to occupancy, and periodically thereafter, to ensure that they are maintained in decent, safe, and sanitary condition. Once a certified household locates an available unit, the PHA is responsible for checking compliance with Section 8 housing standards or approved variations in the acceptability criteria.

5.5.1 Inspectors

PHAs have the responsibility for ensuring the condition of units; however, the actual inspection may be performed by the PHA staff, local inspectors not on the staff, or a combination of both. In most cases, PHA staff inspect the units. Sampled PHAs not in Metro locations all reported that the staff performed inspections. Of sampled PHAs in Metro locations, 60 percent use PHA staff only, 33 percent use local inspectors only, and 7 percent use a combination of both.

Most agencies have either one or two inspectors; one agency reported as many as seven inspectors. About half of the PHAs do not have an inspector with post-secondary or trade school training in housing construction or related disciplines, and an equal number do not have inspectors with 5 or more years of experience. No licensing or examination requirement for inspectors was reported.

Despite the variability in training and experience of inspectors, almost all PHAs claim that failure rates do not vary significantly by inspector. When variance is observed, it is attributed to the different quality of housing units to which inspectors are assigned.

5.5.2 Inspection Standards

Most agencies use HUD acceptability criteria without modifications, but about one-fourth use HUD standards with additional criteria. About a third of the sampled PHAs use a local (municipality or county) code for inspection standards. Seventy-two percent of the codes are based on model codes that are split fairly evenly among uniform, southern, and national model codes.

About one-third of the agencies have asked the area office for variances of some items in the HUD acceptability criteria. Roughly half of the agencies chose the housing standards currently used, and half had the standards imposed by some other governing body.

No PHAs reported that Section 8 standards were adopted for other uses by communities in their jurisdictions. The HUD housing quality standards generally do not meet local housing or building codes. Nineteen percent of PHAs report all inspections are performed by local code inspectors; in 25 percent of these cases, the results are also used to enforce local codes.

5.5.3 How Inspections are Performed

In almost all cases, the unit is inspected within a week of the request. The inspector takes an average of an hour and 45 minutes, including an average of 42 minutes for travel time. One agency, with an unusually large jurisdictional area, reported an average of 2 hours for travel time per unit. The non-Metro sites reported an average of 46 minutes for travel time, versus 31 minutes at the Metro sites. As

expected, in the higher density areas, the potential units are more accessible to the PHAs. The time difference is explained by two factors:

- greater travel time to inspect units at non-Metro sites; and
- use of local inspectors to perform inspections at some Metro locations, with the result that very little staff time is required.

When units are failed, the PHAs are generally flexible and arrive at a mutually agreeable repair deadline with the landlord. PHAs reported in practice a repair interval usually no longer than a month, though 10 percent allow just one week for repairs. Most PHAs estimate an average cost of necessary repairs to the landlords of less than $200. For 35 percent of failed units, landlords refuse to make repairs.

PHAs usually have to reinspect a unit once or twice (average 1.4 times) before the unit passes. Half of the PHAs have had to inspect a unit three, four, or even five times. Reinspections take less time to perform than initial inspections because most (68 percent) agencies concentrate only on problem areas instead of performing a full inspection.

5.5.4 Inspection Performance

Many PHAs have inspected (and approved or failed) hundreds of potential Section 8 units (the range of units inspected is 21 to 1,250).

Table 5-18 displays the reasons for failure of potential Section 8 units. There is a sharp contrast between reasons for failure at Metro locations and at non-Metro locations. At Metro locations, major problems are inadequate fire and safety features, electrical or plumbing problems, and general interior maintenance. Inadequate bathroom facilities and pest problems were frequent reasons for failure at non-Metro sites, but infrequent reasons at Metro sites.

Table 5-18

Why Units Never Accepted Fail Inspection—Sampled PHAs

REASON FOR FAILURE	PERCENT OF FAILURE CAUSES		
	Metro	Non-Metro	All PHAs
Heating/Cooling Problems	9	2	7
Electrical Problems	16	4	10
Plumbing Problems	14	3	9
Inadequate Appliances	1	0	1
Inadequate Bathroom Facilities	6	35	18
Inadequate Fire and Safety Features	20	0	12
Pest Problems	1	17	7
General Interior Maintenance Problems	17	25	20
General Exterior Maintenance Problems	11	12	12
Other Reasons	5	2	4
(N=30)	100	100	100

5.5.5 Inspection Activity

Table 5-19 displays the level of inspection activity for the sampled PHAs. On the average, 1.7 inspections (initial and reinspect) were required to lease up a Section 8 unit.

Table 5-19

Inspection Activity in Sector C

PHA TYPE	INSPECTIONS PER UNIT LEASED
PHA Location	
Metro	1.59
Non-Metro	1.94
Type of Inspectors	
PHA Staff	1.68
Local Inspectors	2.09
Combination	1.47
Currently Administering Other Housing Program(s)	
Yes	1.69
No	1.85
ALL PHAs	1.74

Table 5-19 indicates that more inspections were required in PHAs that used local inspectors than at PHAs performing their own inspections. Analysis reveals that the variance is caused by higher failure rate, correlated to the higher housing standards found with local inspectors versus PHA staff inspectors. Local inspectors use local codes, which are more strict than HUD acceptability criteria.

The population of inspector types explains the observed difference between inspections per unit leased for Metro sites versus non-Metro sites. (Sampled non-Metro sites used only PHA staff to perform inspections.) PHA staff inspectors may have been more lenient in inspection standards.

5.5.6 Reinspections

Because most PHAs are at a relatively early stage of program development, limited data are available on periodic reinspections. Most (71 percent) PHAs reinspect occupied units annually for compliance. Half the agencies perform only a spot check, and half perform complete inspections. Twenty-one percent reported that the reinspection interval is 3 months, and one agency sampled regularly reinspects units twice a year.

5.5.7 Costs of Performing the Inspection Function

Table 5-20 displays the costs associated with preliminary inspection efforts for various subpopulations of PHAs. These represent costs corresponding to agencies at various stages of program development; costs at "steady state" may vary systematically.

Table 5-20

Costs of Preliminary Inspection Function in Sector C

FACTOR/SUBPOPULATION		PRELIMINARY COSTS PER OCCUPIED UNIT	
		Dir. Pers. Hrs.	Total Direct Cost ($)
PHA LOCATION			
	Metro	2.8	22
	Non-Metro	4.0	18
SIZE OF PHA JURISDICTION	population		
	<50K	3.9	20
	50K-100K	2.9	17
	100K-500K	2.9	22
	>500K	3.4	27
PROGRAM SCALE	ACC size in units		
	0-70	4.9	24.21
	71-130	2.3	11.89
	131-399	3.5	25.75
	400-999	3.7	36.44
	Over 999	2.3	20.62
LEVEL OF RELATED ACTIVITY	currently administer other programs		
	YES	3.5	23
	NO	2.9	15
SECTION 8 EXPERIENCE	months since ACC		
	0-3	—	—
	4-9	3.8	18
	10-12	2.7	23
	>12	2.9	22
PROGRAM STATUS	% leased of ACC		
	<40%	4.9	28
	41-65%	3.4	20
	66-90%	2.5	18
	>90%	1.7	11
ALL PHAs		3.3	20.24

On the average, 3.3 direct personnel hours are expended per unit leased for inspections. Considering wages and other direct costs, such as travel expense to visit units, the inspection component of direct cost is $20 per leased unit.

As expected, direct personnel inspection hours are higher (4 hours per unit) for non-Metro locations than for Metro locations (2.8 hours per unit). In contrast, the reported direct cost per unit is slightly more for Metro agencies, due partly to higher salaries in the urban areas.

Table 5-21 displays the ongoing inspection costs reported by PHAs. These represent costs corresponding to agencies at various stages of program development; costs after the first year of operation may vary systematically.

Table 5-21

Costs of Ongoing Inspection Function in Sector C

FACTOR/POPULATION		ANNUAL ONGOING COSTS PER OCCUPIED UNIT	
		Dir. Pers. Hrs.	Total Direct Cost ($)
PHA LOCATION			
	Metro	1.0	7
	Non-Metro	1.7	8
SIZE OF PHA JURISDICTION	population		
	<50K	1.9	9
	50K-100K	.5	3
	100K-500K	1.6	9
	>500K	.8	7
PROGRAM SCALE	ACC size in units:		
	0-70	2.3	11
	71-130	1.1	7
	131-399	1.0	4
	400-999	.6	5
	Over 999	1.8	11
LEVEL OF RELATED ACTIVITY	currently administer other programs		
	YES	1.0	6
	NO	1.9	9
SECTION 8 EXPERIENCE	months since ACC		
	0-3	—	—
	4-9	1.4	7
	10-12	.7	4
	>12	2.8	19
PROGRAM STATUS	% leased of ACC		
	<40%	.7	4
	41-65%	1.8	8
	66-90%	1.1	7
	>90%	1.6	10
ALL PHAs		1.3	7

Ongoing inspection costs include the effort to inspect units to fill vacancies (steady state) and the periodic reinspection of occupied units. Roughly 1.3 hours are required annually per leased unit, which corresponds to $7 per unit in direct costs. To reflect costs for mature agencies, the higher costs should be used for agencies in operation more than one year. For these agencies, 2.8 hours are required annually per leased unit, which corresponds to $19 per unit in direct costs.

5.5.8 Relative Efficiency of Inspection Procedures

Table 5-22 displays the cost per inspection by type of inspector. Overall, inspections take 2.2 hours, with a total direct cost of $15 per inspection.

Table 5-22

Relative Efficiency of Inspection Methods in Sector C

FACTOR	COST PER INSPECTION BY TYPE OF INSPECTORS							
	PHA Staff		Local Inspectors		Combination		Total	
	(Hrs.)	($)	(Hrs.)	($)	(Hrs.)	($)	(Hrs.)	($)
PHA LOCATION								
Metro	2.8	22	.9	11	1.9	12	2.1	20
Non-Metro	2.3	10	-	-	-	-	2.3	10
ALL SIZE								
0-70	2.8	15	–	–	–	–	2.8	15
71-130	1.7	9	0.2	2	–	–	1.4	7
131-399	3.4	23	1.7	22	1.8	10	2.8	21
400-999	5.5	49	1.9	24	–	–	3.6	36
Over 999	1.9	16	0	4	2.4	23	1.7	15
ALL PHAs	2.5	16	.9	11	1.9	12	2.2	15
NUMBER MONTHS SINCE ACC								
0-3	–	–	–	–	–	–	–	–
4-9	2.3	11	–	–	1.8	10	2.3	11
10-12	3.1	24	0.9	11	–	–	2.1	18
Over 12	2.6	20	0	4	2.4	23	2.5	19

Uniformly in the sites sampled, the use of local inspectors to perform inspection was more economical than the use of PHA staff to perform inspections. Generally the costs were higher in the larger PHAs, and the use of local inspectors appeared increasingly desirable.

5.5.9 Conclusion

The analysis of the inspection function has revealed important distinctions between PHAs at Metro locations versus non-Metro locations. In this factor, differences are reported for costs, methods, inspectors, standards, and reasons for failed inspections.

Many PHAs would prefer more flexible housing standards. Although they generally agree that the housing standards are very reasonable, the PHAs would like flexibility under special conditions.

In most cases, using local inspectors to perform inspections is more economical than using PHA staff when feasible. The use of local inspectors should be encouraged.

5.6 The Payments Function

The payments function encompasses the monthly payments made by PHAs to landlords for units occupied by Section 8 tenants. It is the only major function that is solely an ongoing effort; intake efforts do not involve making payments.

Payments for occupied units range from $2 to $245 per month, with an average of $81 per month.

This section focuses on the administrative cost of making payments rather than the value of the payments themselves.

5.6.1 Methods of Payments

PHAs perform the routine payments function in a variety of ways:

- separate or combined payments to landlords;
- automated or manual system of payments; and

- for automated systems, processing of payments by PHA staff or by another agency.

5.6.1.1 Combined Payments

At many sites, some recipients occupy units managed by a common landlord. In such cases, PHAs may combine assistance amounts associated with two or more recipients to the common landlord.

Seventy-five percent of the PHAs sampled make combined payments. The practice is more prevalent at the smaller and medium-size PHAs, with 82 percent combining payments, while only 38 percent of large agencies (over 750 units) combine payments.

5.6.1.2 Automation of Payments Function

In larger agencies with significant numbers of occupied units, manual processing of payments becomes unmanageable, and PHAs may opt for an automated system of payments.

Thirty percent of the PHAs sampled use an automated payments function. Automation is, of course, more prevalent in the larger and more experienced PHAs.

5.6.1.3 EDP Facilities

For agencies requiring an automated system, it may or may not be practical for the PHA to have its own computer facility. Of the automated agencies sampled, 12 percent had their own facility, 22 percent contracted out for the services, and most PHAs were served by some other agency.

5.6.2 Level of Payment Activity

PHAs are required to make payments monthly for Section 8 occupied units. Because some payments are combined for common landlords, the actual number of payments made may differ from the number of leased unit-months.

Table 5-23 displays the observed number of payments per occupied unit-month by various characteristics. An average of 63 payments are made for every 100 units per month. Agencies that

combine payments made slightly more than half as many payments per unit as agencies that do not combine payments.

Table 5-23

Payments Function Activity of PHAs in Sector C

FACTOR	NUMBER OF PAYMENTS FOR EVERY HUNDRED UNITS PER MONTH	PERCENT OF PHAs IN CATEGORIES
COMBINED PAYMENTS for recipients with common landlord		
YES	54	75
NO	100	25
AUTOMATED SYSTEM of payments		
YES	71	30
NO	60	70
WHO PERFORMS AUTOMATED PAYMENTS		
CONTRACTED	96	22
PHA	84	12
OTHER AGENCY	58	66
ALL PHAs	63	100

(N=30)

5.6.3 Costs of Performing Payments Function

Table 5-24 displays the administrative costs of making payments for various subpopulations of PHAs. On the average, 36 minutes are required per occupied unit per month. Considering other direct costs, such as computer costs for automated payments systems, this corresponds to $2.68 per unit for direct cost of payments per unit-month, or $32 annually per unit.

Table 5-24

Cost of Payment Function in Sector C

FACTOR/SUBPOPULATION		ONGOING COSTS PER OCCUPIED UNIT PER MONTH	
		Dir. Pers. Hrs.	Total Direct Cost ($)
PHA LOCATION			
	Metro	.44	2.64
	Non-Metro	.77	2.73
SIZE OF PHA JURISDICTION	population		
	<50K	.84	3.26
	50K-100K	.47	2.63
	100K-500K	.40	2.01
	>500K	.46	2.23
PROGRAM SCALE	ACC size in units:		
	0-70	.83	2.92
	71-130	.56	2.49
	131-399	.56	3.35
	400-999	.18	1.25
	Over 999	.37	1.77
LEVEL OF RELATED ACTIVITY	currently administer other programs		
	YES	.62	3.03
	NO	.53	2.01
SECTION 8 EXPERIENCE	months since ACC		
	0-3	—	—
	4-9	.74	2.76
	10-12	.45	2.77
	>12	.35	2.01
PROGRAM STATUS	% leased of ACC		
	<40%	.71	2.08
	41-65%	.67	1.41
	66-90%	.44	1.89
	>90%	.44	1.07
ALL PHAs		.59	2.68

Direct payment hours for Metro PHAs and for larger ACC size PHAs are lower than for non-Metro PHAs and smaller agencies. This difference is explained by the use of automated systems and outside contractors, which correlates with PHA size and location. Agencies not using a manual system of payments require much less personnel time for the payments function.

5.6.4 Relative Efficiency of Payments Methods

Table 5-25 displays the relative efficiency of payment methods. The data do not support any one method as being most efficient.

Table 5-25

Relative Efficiency of Payment Methods in Sector C

METHOD	HOURS PER UNIT PER MONTH	DIRECT COST PER UNIT PER MONTH
COMBINED PAYMENTS		
recipients with common landlord		
YES	.52	2.65
NO	.87	2.82
AUTOMATED SYSTEM of payments		
YES	.58	2.66
NO	.60	2.73
WHO PERFORMS AUTOMATED PAYMENTS		
Contracted	1.32	4.36
PHA	.26	1.31
Other Agency	.41	2.45
ALL METHODS	.59	2.68

Automated systems do not reduce the amount of staff time required for payments. The direct cost figures may not include a proper allocation of data processing costs for PHAs that perform their own processing.

5.6.5 Conclusions

The analysis of the payments function has revealed that the methods and costs of making payments are strongly related to the scale of operations. No conclusions are supported on best methods of payments for equivalent agencies; however, an automated system of payments may be the only manageable alternative for large agencies.

5.7 Summary

The analysis of PHA functions shows that each agency has its own combination of methods to administer the Section 8 program. Though particular methods were judged superior to others for some functions, the ideal procedures depend on factors such as agency location, size, experience, geography, and characteristics of the eligible population. Each agency had a unique combination of these attributes and a unique experience with the program.

Table 5-26 summarizes the direct hours and direct costs by function. The preliminary hours and costs are expressed per occupied unit and the ongoing hours and costs are expressed per unit-month. (Note: The total costs of the preliminary activities discussed in this section use the direct costs above as a base on to which are added indirect costs.)

Table 5-26

Summary of Direct Hours and Costs*
(Sector C Averages)

FUNCTION	PRELIMINARY PER OCCUPIED UNIT		ONGOING PER UNIT-MONTH	
	Dir. Pers. Hrs.	Total Direct Cost	Dir. Pers. Hrs.	Total Direct Cost
Outreach	6.5	$ 33.51	.26	$1.33
Certification	7.4	35.03	.18	.79
Client Services	9.6	42.32	.48	1.92
Inspection	3.3	20.24	.11	.61
Payments	–	–	.59	2.68
Total	26.8	131.10	1.62	7.33

* Indirect costs not included; see Sections 6 and 7 for total costs.

5.7.1 Preliminary Functions

The PHAs currently enroll roughly 7 percent of eligible families in the jurisdictions. This enrollment is accomplished through the preliminary functions of outreach, certification, client services, and inspection.

Table 5-26 indicates that the largest component of preliminary direct cost is attributed to client services; however, this comparison must be qualified. Client services are more flexible in requirements

and difficult to identify. Many agencies justifying resources spent on other functions have assigned the residual to client services. Naturally, "idle" time is inevitable; however, this process of allocating costs may assign a disproportionate share of idle time cost to client services.

Certification and outreach functions each contribute about one-fourth of total preliminary direct costs. While the certification process is fairly routine, the cost of outreach and the range of techniques employed were highly variable. The remaining function, inspection, comprised 15 percent of preliminary costs.

Preliminary cost per unit leased decreases as the agency approaches steady-state lease-up. As each agency progresses towards steady-state lease-up, the distribution of costs by function shifts. Less emphasis is placed on outreach since those expenses are usually incurred at the earliest stage of program development.

5.7.2 Ongoing Functions

Most of the PHAs sampled did not have enough experience maintaining the program to record meaningful estimates of ongoing costs. Ongoing costs for agencies with less than one year of experience in the program were a relatively small portion of total costs.

Table 5-26 illustrates the distribution of ongoing direct hours and costs at the time of data collection. These direct expenditures are somewhat less than what may be observed for the same agencies after one year, when a larger percent of units are leased.

As expected, the payments function comprises the largest part of ongoing direct hours and costs. Client services and payments combined currently account for two-thirds of direct expenditures. Certification and inspection are periodic activities, typically performed annually. Consequently, PHAs with less than a year of program experience have not yet performed these functions.

6. ANALYSIS OF PRELIMINARY FEE

The PHAs are funded for administering the Section 8 Existing Housing Program through two fee mechanisms: a preliminary fee to cover the initial program startup and an administrative fee to cover the ongoing activities. HUD has defined the preliminary, or intake, costs as follows:

> Preliminary costs shall be allowed to cover the costs of initially taking into the program sufficient families to occupy the units authorized. This intake process includes the following functions: publicizing the program to lower-income families and to owners, property managers, and real estate brokers; receiving and screening applications; certifying income; providing program and market information to participants; reviewing requests for lease approval; conducting inspection of units; and negotiating contracts with owners. Administrative overhead costs, including equipment, supplies, executive salaries, etc., are included in these costs...These one-time costs take into account those families who inquire or apply for the program, but who never receive housing payments because they do not find acceptable housing, decide not to join the program, or are ineligible.

This section presents the status of the "measured" preliminary costs incurred per unit leased compared to the granted preliminary fee per unit. The costs were measured through the following process:

- estimation by PHA staff of the labor time expended by function for preliminary, administrative (maintenance), and general activities;
- measurement of the salary cost, based upon the time estimates and salary information provided by the PHAs;
- identification to the extent feasible of nonpersonnel costs directly attributable to a specific function and to preliminary or administrative activities;

- identification of employee fringe benefit costs and other indirect costs;

- allocation of employee fringe benefits costs to each preliminary and administrative function to determine the total direct cost of the function; and

- allocation of other indirect costs and the personnel cost for general activities to preliminary and administrative activities.

The measured preliminary costs per unit leased presented in this section are the sum of the preliminary direct costs by function presented in Section 5 plus the indirect cost allocated to preliminary activities.

In this section the measured preliminary costs per unit leased and the difference between those costs and the granted preliminary fee per unit are analyzed by pertinent site characteristics, such as Metro, population, number of units under ACC, number of months since ACC execution, and percent of lease-up. Finally, the current preliminary fee structure is evaluated as to its simplicity, continuity, incentives, dynamics, equitableness, accountability, and implementation cost.

6.1 Status

The preliminary fee per unit granted by the HUD area office, the measured preliminary cost per unit leased, and the difference between them are presented in Table 6-1. The preliminary fee per unit granted to the 30 PHAs sampled ranged from a low of $70 to a high of $609. The average fee per unit granted to the 30 PHAs was $266, or slightly below the HUD standard of $275. The average preliminary fee per unit granted in Sector C is projected to be $257.

Table 6-1

Status of Preliminary Fee and Cost per Unit

SITE	FEE GRANTED ($)	COST INCURRED PER UNIT LEASED ($)	GRANT OVER (UNDER) INCURRED COST ($)	DIFFERENCES AS PERCENT OF GRANTED
1	218	134	84	39
2	245	149	96	39
3	212	62	150	71
4	160	156	4	3
5	250	122	128	51
6	205	239	(34)	(17)
7	200	223	(23)	(12)
8	206	357	(151)	(73)
9	275	282	(7)	(3)
10	275	278	(3)	(1)
11	275	256	19	7
12	175	255	(80)	(46)
13	70	124	(54)	(77)
14	116	95	21	18
15	235	148	87	37
16	184	123	61	33
17	275	452	(177)	(64)
18	609	205	404	66
19	416	388	28	7
20	469	382	87	19
21	337	364	(27)	(8)
22	585	708	(123)	(21)
23	365	383	(18)	(5)
24	275	616	(341)	(124)
25	275	542	(267)	(97)
26	275	261	14	5
27	275	282	(7)	(3)
28	275	155	120	44
29	153	181	(28)	(18)
30	107	130	(23)	(21)
Average	266	268	(2)	(1)

The average measured preliminary costs incurred per unit leased are not substantially different from the fee granted. For the 30 PHAs sampled, the average measured preliminary cost per unit leased was $268, or $2 more than the average fee granted. Wide variations were evident among PHAs however. The measured preliminary cost incurred ranged from a low of $62 to a high of $708, and the difference between the fee and the cost ranged from a low of the cost $404 below the fee to a high of the cost $341 over the fee.

Based on the 30 PHAs sampled, the projected average preliminary cost per unit leased in Section C is $241. This is $16 less than the average fee granted of $257.

The preliminary costs presented above reflect the estimated costs of the PHAs as of their current stage of program development. Two pertinent indicators of the different stages of program development are the percent of lease-up and the number of months since execution of the Annual Contributions Contract. These distributions are summarized in Table 6-2.

Table 6-2

Distribution of Section 8 Program Maturity in Sector C PHAs

FACTOR	PERCENT OF PHAs
PERCENT OF LEASE-UP	
Under 40	28
41-65	33
66-90	21
Over 90	18
NUMBER OF MONTHS SINCE ACC	
0-3	–
4-9	51
10-12	38
Over 12	11

(N=30)

The state of program development should have an impact on the measured cumulative preliminary costs incurred per unit leased to date. The ACC requires the PHAs to publicize the program in the community in order to attract applicants. This outreach effort may result in substantial expenditures in the early stages of program development, but in the latter stages the costs will be relatively modest. The costs in the latter stages of program development will be minimal for one of two reasons: (1) the PHA continues to receive applicants from a delayed response to the initial outreach effort or (2) as the PHA approaches full lease-up and fewer units are available for rent, the outreach function is narrowed or is focused on specific segments of the population.

A regression of the estimated preliminary cost per unit leased against the percent of lease-up indicates this gradual reduction in the cost per unit leased as the percent of lease-up increases. For the 30 PHAs sampled and as projected for Sector C, the measured cumulative preliminary cost per unit leased decreased as the percent of lease-up increased.

6.2 Factors Affecting Preliminary Costs

The estimated preliminary cost per unit leased and the amount by which the preliminary fee granted exceeded the cost incurred are summarized in Table 6-3, for the following PHA characteristics:

- Metro/non-Metro;
- population;
- ACC size (units);
- number of months since ACC;
- percent lease-up;
- preliminary fee granted per unit; and
- years of housing experience.

Table 6-3

Analysis of Measured Cumulative Preliminary Cost Per Unit
Leased by PHA Characteristics
in Sector C

PHA CHARACTERISTIC	AVERAGE PRELIMINARY COST INCURRED PER UNIT LEASED ($)	AVERAGE GRANT OVER (UNDER) INCURRED ($)
All PHAs	241	16
Type of Area		
Metro	261	19
Non-Metro	216	12
Population		
Under 50,000	238	26
50,000 to 100,000	228	50
100,000 to 500,000	221	(22)
Over 500,000	359	(25)
ACC Size		
Under 70	276	(57)
71 to 130	178	75
131 to 399	264	8
400 to 999	410	(47)
Over 999	216	17
Number Months Since ACC		
4 to 9	223	12
10 to 12	271	30
Over 12	220	(9)
Percent of Lease-Up		
Under 40	321	(48)
41 to 65	247	24
66 to 90	191	5
Over 90	163	116
Preliminary Fee Per Unit		
Under 200	132	4
200 to 274	197	28
275	325	(50)
Over 275	366	119
Years of Housing Experience		
Under 1	213	3
2 to 5	323	(31)
6 to 10	242	72
Over 10	244	5

The estimated preliminary cost per unit leased is higher for Metro than for non-Metro, $261 versus $217, respectively, as projected for Sector C. This may be explained by a combination of a higher cost of living in a Metro area and the organizational findings that the Metros are more likely to have fulltime specialized staff (Table 4-3). An analysis of the aggregated personnel cost for labor directly associated with a specific preliminary or administrative function indicated higher costs for Metros. The aggregated personnel cost (salary plus employee fringe benefits) was $6.14 for Metros sampled, or 38-percent more than the non-Metro cost of $4.45. The indirect costs incurred by the Metro PHAs sampled per direct labor hour was measured as $6.74, or 52-percent higher than the non-Metro indirect cost per direct labor hour of $4.42.

The organizational finding that the Metros are more likely to have fulltime specialized staff may also contribute the higher measured cumulative preliminary costs per unit leased. In either a Metro or a non-Metro certain valleys can be expected in the volume of work. In non-Metros without fulltime specialized staff, parttime Section 8 staff can reallocate their time from one Section 8 function to another or from Section 8 to another program. Thus, the Section 8 program will not have to absorb as much of the cost of nonproductive time in a non-Metro as in the Metro, where the fulltime specialized staff is a cost of the Section 8 program regardless of the level of productivity.

A definite relationship also appeared between the estimated preliminary cost per unit leased and the percent of lease-up (Figure 6-1 and Table 6-4). The average preliminary cost decreased as the percent of lease-up increased. The correlation coefficient of -.33 is not especially strong, but it is relatively high considering the general dispersion of the costs for the 30 PHAs. The negative correlation (i.e., that the cumulative unit cost decreases as the percent of lease-up increases) has a confidence level of approximately 93 percent.

The measured preliminary cost per unit leased appears to be positively related to the granted preliminary fee per unit (i.e., the estimated cost is higher for PHAs with higher fees). A regression of the measured preliminary cost per unit leased against the granted preliminary fee per unit for the 30 PHAs sampled (Figure 6-2 and Table 6-5) yielded a relatively high correlation coefficient of +.57 and 95-percent confidence (1) that the correlation is positive and (2) that the cost may increase dollar for dollar with the increase in fee. This positive relationship, however, does not necessarily indicate that the preliminary fees granted were reasonable. The

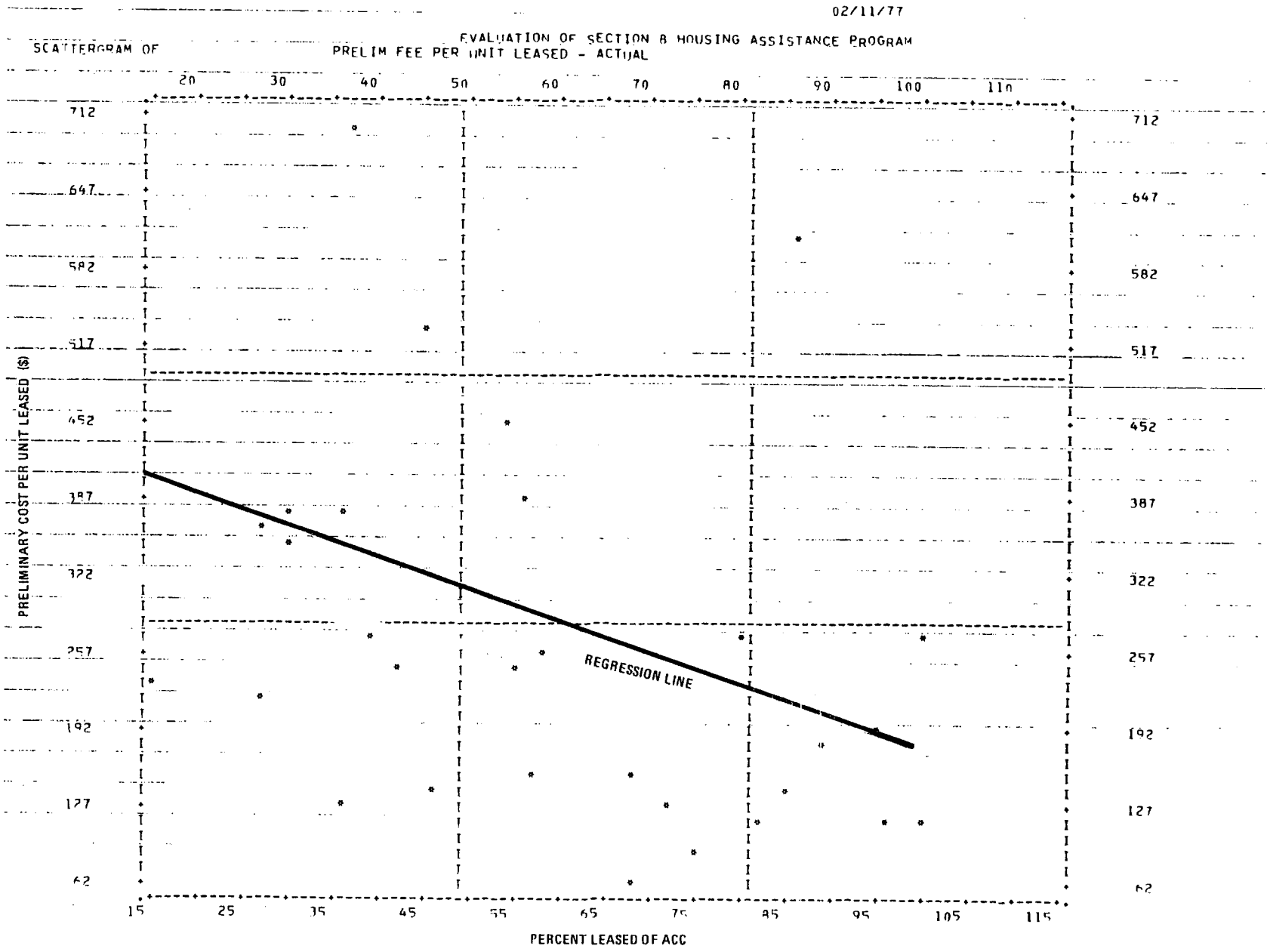

Figure 6-1: Measured Cumulative Preliminary Cost per Unit Leased Versus Percent of Lease-up for Sampled PHAs

Table 6-4

Regression Statistics of Preliminary Cost Incurred per Unit Leased Versus Percent of Lease-up for Sampled PHAs

02/11/77

STATISTICS..

CORRELATION (R)-	-.33441	R SQUARED -	.11183	SIGNIFICANCE R -	.03544
STD ERR OF EST -	151.42605	INTERCEPT (A) -	393.85174	STD ERROR OF A -	72.32044
SIGNIFICANCE A -	.00001	SLOPE (B) -	-2.10766	STD ERROR OF B -	1.12252
SIGNIFICANCE B -	.03544				
PLOTTED VALUES -	30	EXCLUDED VALUES-	0	MISSING VALUES -	0

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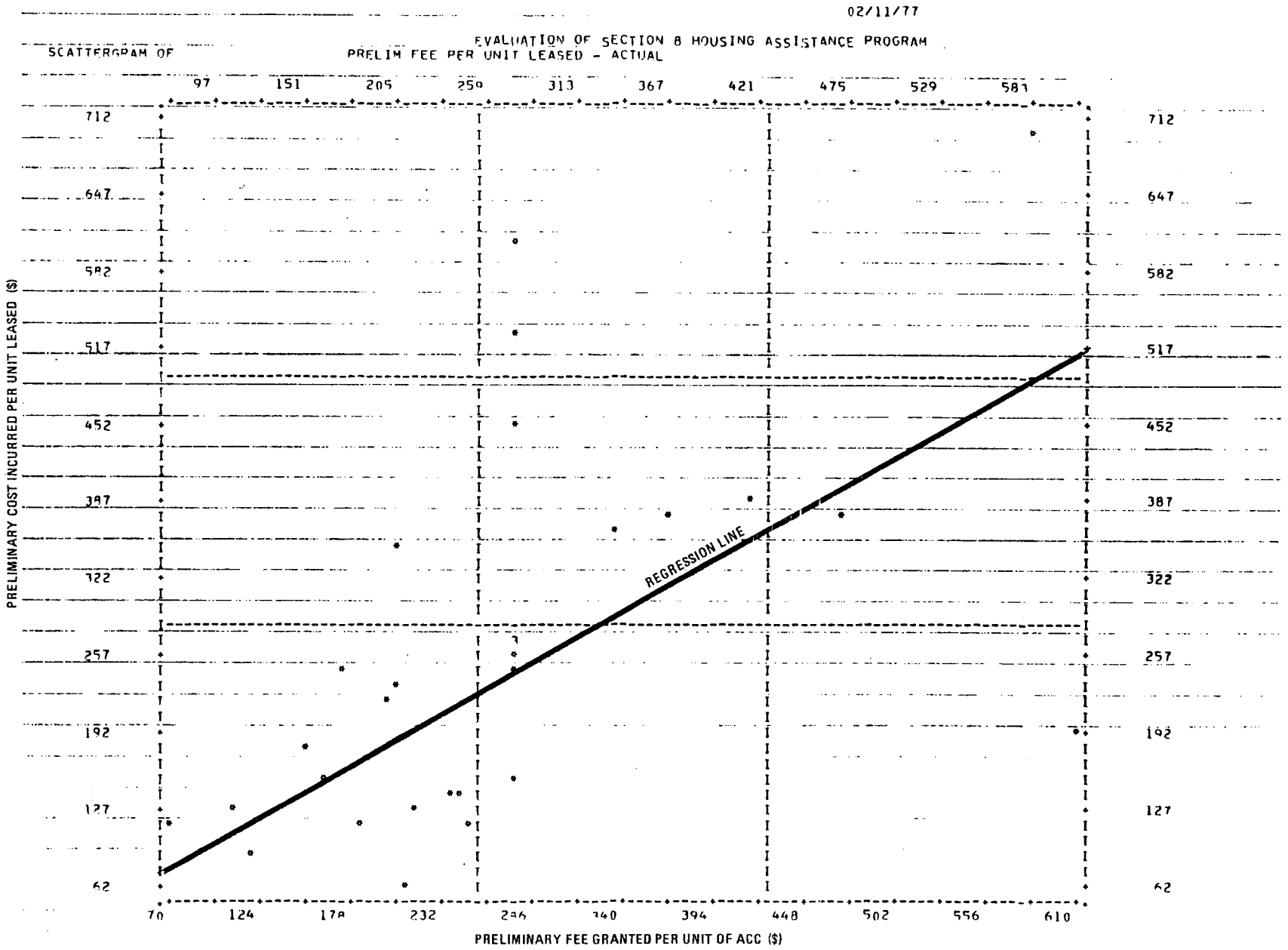

Figure 6-2: Preliminary Cost Incurred per Unit Leased Versus Granted Preliminary Fee per Unit for Sampled PHAs

Table 6-5

Regression Statistics of Preliminary Cost Incurred per Unit Leased Versus Granted Preliminary Fee per Unit for Sampled PHAs

02/11/77

STATISTICS..

CORRELATION (R) -	.56716	R SQUARED -	.32167	SIGNIFICANCE R -	.00054
STD ERR OF EST -	132.33423	INTERCEPT (A) -	75.24973	STD ERROR OF A -	58.24725
SIGNIFICANCE A -	.10348	SLOPE (B) -	.72495	STD ERROR OF B -	.19895
SIGNIFICANCE B -	.00054				
PLOTTED VALUES -	30	EXCLUDED VALUES-	0	MISSING VALUES -	0

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real meaning of the correlation may be that the PHAs have managed the program such that the costs match the granted fee.

The remaining tests for patterns in the estimated preliminary costs yielded inconclusive results. When segregated into population ranges, the 30 PHAs sampled evidenced no discernable trend. The projection for Sector C indicated that the measured preliminary cost per unit leased decreased as the population increased until the population reached 500,000. For PHAs with over 500,000 in population, the estimated preliminary cost dramatically increased from an average of approximately $230 per unit to approximately $359 per unit. A regression of these two variables yielded a correlation coefficient of .32 and a 95-percent confidence interval that the slope includes zero. The latter means that the preliminary cost per unit leased may be the same regardless of the jurisdiction population.

The preliminary cost per unit leased is lower for PHAs with 100 to 749 units than for PHAs with fewer or more units. When compared to the number of months since execution of the Annual Contributions Contract, the average preliminary cost per unit leased is higher for agencies in the 10- to 12-month category than for those of fewer or more months since ACC. This lack of a relationship was substantiated by a regression, for the 30 PHAs sampled, of the estimated preliminary cost per unit leased against the number of months since ACC. The regression yielded a correlation coefficient of 0.02, or no discernable correlation.

The measured preliminary cost per unit leased does not display any discernable trend when compared to the number of years that PHA has been involved with housing programs. The categorization of the average cost by years of experience indicates that agencies in the 2- to 5-year category have the highest average cost. A regression, for the 30 PHAs sampled, of the cost against years of experience determined the correlation coefficient to be 0.12, or very little correlation. The 95-percent confidence interval of the slope includes zero, which indicates that the preliminary cost per unit leased may be the same regardless of the years of experience the PHA has in housing programs.

The comparison of the average amount by which the granted preliminary fee per unit exceeded the measured preliminary cost per unit leased (Table 6-3) does not indicate any clear trends by groupings of PHAs with similar characteristics. In some cases either the 30 PHAs sampled or the projection for Sector C indicates a possible relationship, but the other fails to show the same pattern. Without such a consistency, the possible trends are not considered to exist.

Regressions were performed of the amount by which the granted fee per unit exceeded the measured cost per unit lease against (1) the number of units under lease, (2) the percent of lease-up, and (3) the granted fee per unit. The findings of these regressions were an absence of correlation and a difference between cost and fee which is constant at the 95-percent confidence level. The key statistics are summarized in Table 6-6.

Table 6-6

Regression Statistics of Preliminary Costs and Granted Fee for Sampled PHAs

REGRESSION FOR 30 PHAs SAMPLED OF FEE OVER (UNDER) COST AGAINST	CORRELATION COEFFICIENT	SLOPE	CONFIDENCE LEVEL THAT SLOPE IS NOT EQUAL TO ZERO
Number of units under lease	+.10	+ .04	40
Percent of lease-up	+.27	+1.43	85
Fee per unit	+.25	+ .28	76

These results corroborate the initial findings by PHA groupings that no discernable patterns exist in the difference between the granted preliminary fee per unit and the measured preliminary cost per unit leased.

6.3 Evaluation of Current Preliminary Fee Structure--Conclusions

The current preliminary fee structure is theoretically a simple system: costs to lease each ACC unit before the unit is leased are preliminary costs. In practicality, however, this structure is relatively complex. As indicated in Table 4-6, approximately 80 percent of the PHAs reported that they do not use the HUD definition to accumulate preliminary costs. Apparently this is because of honest misunderstanding of the HUD definition or because allocation methods (percent lease-up) are used. The percent lease-up allocation method may be valid if the PHA staff actually spends the same amount of time per period for each of the ACC units, whether or not the units are leased.

A truly accurate system for determining preliminary costs would require time reporting by each employee of (1) the time spent to lease up ACC units which have not already been leased up and (2) the time spent with a recipient or to lease up a previously leased up ACC unit (i.e., to replace attrition). The complexity of explaining the operational meaning of preliminary costs, coupled with the misunderstandings of the PHAs, indicates that the current preliminary fee structure is not simple.

If such a system were implemented, the PHA could readily discern the status of the costs incurred versus the preliminary budget and anticipated future costs to achieve full lease-up. The implementation of a revised system to accumulate preliminary costs properly would require resource expenditures not included in the current PHA preliminary fee budget.

The current preliminary fee structure encourages operational program efficiencies needed by the PHAs to stay within the preliminary budget.

7. ANALYSIS OF ADMINISTRATIVE FEE

The preliminary fee funds the PHAs during the initial lease-up period. After lease-up, the costs of maintaining the program are funded by the administrative fee. HUD has defined the administrative costs as follows:

> PHAs shall be allowed an administrative fee for each unit month under HAP Contract equal to 8-1/2% of the existing Fair Market Rent for a two-bedroom, nonelevator unit in the locality, or $15, whichever is greater.
>
> Administrative activities covered by the fee include making payments to owners, recertifying incomes, providing housing information and assistance, reinspecting leased units, maintaining the contractual relationship with owners, and receiving into the program new families to replace those who drop out. Administrative overhead costs are included. The fee is a flat fee allowable to each PHA for the units actually under HAP Contract.

This section presents the status of the "measured" administrative costs incurred per estimated leased-unit-month compared to the administrative fee per unit-month. The cost measurement process was described in Section 6, Analysis of Preliminary Fee. In this section, the measured administrative cost is the sum of the administrative direct costs by function presented in Section 5, Analysis of PHA Functions, plus the indirect cost allocated to administrative activities.

Because the Section 8 program was not mature in the PHAs we analyzed, we have little confidence in this method of cost analysis. Only seven of the 30 PHAs sampled had been in the program more than 12 months.

Because the Section 8 program is relatively young, the measured administrative costs incurred to date may understate the true maintenance costs of the PHAs at maturity for two reasons:

- During the first year of program operations, the PHA will perform certain administrative functions (such as payments to landlords) but will not necessarily perform others (such as recertification and reinspection).

- During the first 4 months of the second program year, the PHA will perform recertification and reinspection for some recipients but not for others, (e.g., recipients whose occupancy began during the last half of the first program year).

To provide an alternate estimate of the administrative cost to maintain the Section 8 program, a second method was employed to "project" administrative costs for PHAs in the program longer than 1 year (since ACC execution). For this projection, the actual lease-up rate by quarter and certain reinspection data were utilized to estimate the projected administrative cost incurred per recertification and per reinspection, respectively, per leased-unit-month. Consequently, in addition to presenting a straightforward average of the measured cumulative administrative costs incurred per leased-unit-month to date, this section presents an analysis of the projected administrative cost per leased-unit-month for the seven PHAs with more than 1 year of program operations combined with the measured cumulative administrative cost incurred per leased-unit-month for the 23 PHAs with 1 year or less of program operations. These costs are analyzed by pertinent site characteristics, such as Metro, population, number of units under ACC, estimated number of leased-unit-months, number of months since ACC, and percent of lease-up.

7.1 Current Status of Measured Costs in the Sampled PHAs

Using the analysis consistent with the earlier sections (i.e., taking cumulative costs to date on a leased-unit-month basis, the average administrative fee granted per unit-month is $16.08 for the 30 PHAs sampled with an average measured administrative cost per leased-unit-month of $13.16, or $2.92 less than the grant. The administrative fee ranged from a low of $15.00 to a high of $20.57 (Table 7-1), the estimated cost per leased-unit-month ranged from $0.32 to $50.55, and the difference between the fee and the estimated cost ranged from an excess fee of $16.85 to an excess estimated cost of $35.55.

Table 7-1

Status of Administrative Fee and Cost
per Leased-Unit-Month

SITE	GREATER OF 8.5% OF FMR OR $15.00 ($)	ADMINISTRATIVE COST ($) INCURRED PER LEASED-UNIT-MONTH	FEE OVER (UNDER) COST ($) INCURRED	DIFFERENCE AS PERCENT OF FEE
1	15.00	4.87	10.13	68
2	15.38	11.71	3.68	24
3	15.00	39.43	(24.43)	(163)
4	15.00	14.03	.97	6
5	15.38	9.86	5.52	36
6	15.00	41.88	(26.88)	(179)
7	15.00	2.14	12.86	86
8	15.00	6.00	9.00	60
9	15.00	6.21	8.79	59
10	15.00	4.65	10.35	69
11	15.00	50.55	(35.55)	(237)
12	15.00	18.30	(3.30)	(22)
13	15.00	6.53	8.47	56
14	15.00	3.31	11.69	78
15	15.00	6.24	8.76	58
16	16.23	16.56	(.33)	(2)
17	16.32	2.13	14.19	87
18	19.38	17.66	1.72	9
19	19.38	18.43	.95	5
20	15.00	5.53	9.77	64
22	19.38	22.14	(2.76)	(14)
23	15.30	2.67	12.63	83
24	20.57	20.74	(.17)	(1)
25	17.17	.32	16.82	98
26	16.23	14.26	1.98	12
27	19.80	10.54	9.27	47
28	15.72	10.03	5.70	36
29	15.72	9.27	6.46	41
30	15.00	14.33	.67	4
Average	16.08	13.16	2.92	18

Without the minimum fee provision of $15.00 per leased unit, 14 of the 30 PHAs would have had an administrative fee per unit of less than $15.00. The average fee would have been $14.81, the lowest fee would have been $9.69, and the difference between the fee and estimated cost would have ranged from an excess fee of $16.85 to an excess cost of $40.86.

7.2 Factors Affecting Measured Costs

The average measured administrative cost per leased-unit-month and the difference between the funding fee and the measured average cost are presented by PHA characteristics in Table 7-2. The measured average cost per leased-unit-month appears to be higher for non-Metros than for Metros. However, the distinction is not statistically significant. The measured average cost revealed no general patterns when segregated by population, ACC units, number of months since ACC, percent of lease-up, and number of years of PHA housing experience.

Table 7-2

Analysis of Measured Cumulative Administrative Cost per Leased-Unit-Month by PHA Characteristics in Sector C

PHA CHARACTERISTIC	AVERAGE ADMINISTRATIVE COST ($) INCURRED PER LEASED-UNIT-MONTH	AVERAGE FEE ($) OVER (UNDER) INCURRED
All PHAs	13.66	2.22
Type of Area		
Metro	11.87	4.74
Non-Metro	15.86	(.86)
Population		
Under 50,000	19.42	(3.83)
50,000 to 100,000	9.57	6.77
100,000 to 500,000	9.54	5.99
Over 500,000	14.36	2.41
ACC Size		
0-70	17.67	(1.77)
71-130	13.63	2.05
131-399	11.45	4.74
400-999	7.83	8.35
Over 999	14.11	1.44
Number of Months Since ACC		
4 to 9	15.30	(.21)
10 to 12	10.43	6.27
Over 12	17.40	(.63)
Percent of Lease-up		
Under 40	13.89	1.45
41 to 65	15.63	.18
66 to 90	10.50	5.17
Over 90	13.47	3.69
Number of Years of Housing Experience		
Under 1	18.97	(3.06)
2 to 5	26.17	(10.64)
6 to 10	9.87	6.21
Over 10	7.99	7.78

Note: The cost incurred statistics are heavily weighted, with 23 of the 30 sampled PHAs in the program less than one year.

Regressions of the estimated administrative cost per leased-unit-months versus years of agency experience in housing yielded the results shown in Figure 7-1 and Table 7-3. These results for the sampled PHAs are comparable to the Sector C findings; however, these statistics can be analyzed without correction for the sample design effect.

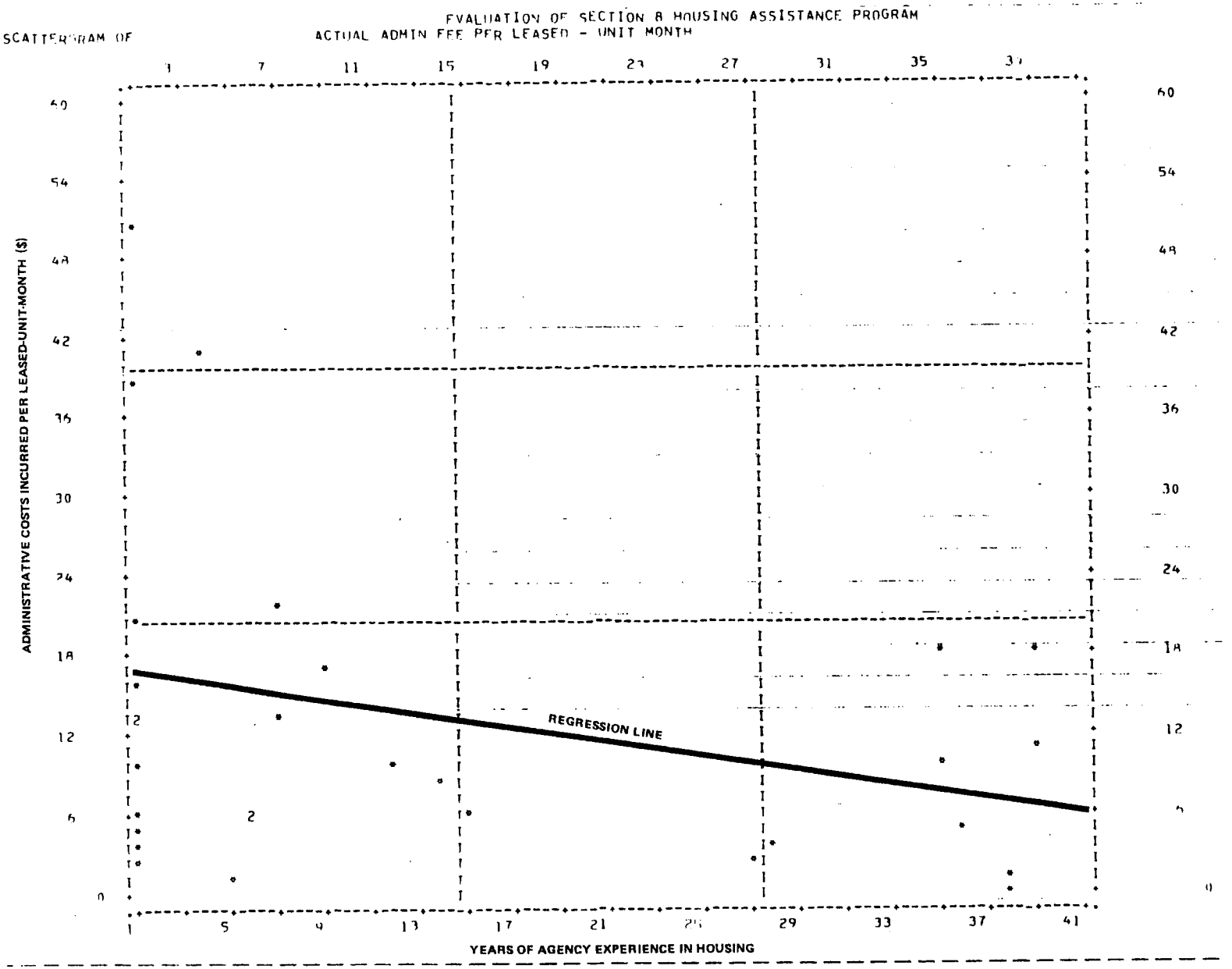


Figure 7-1: Administrative Costs Incurred per Leased-Unit-Month Versus Years of Agency Experience in Housing in Sampled PHAs

Table 7-3

Regression Statistics of Administrative Costs Incurred per Leased-Unit-Month Versus Years of Agency Experience in Housing For Sampled PHAs

02/16/77

STATISTICS..

CORRELATION (R)-	-.29604	R SQUARED -	.08764	SIGNIFICANCE R -	.05610
STD ERR OF EST -	11.79290	INTERCEPT (A) -	16.46353	STD ERROR OF A -	2.94917
SIGNIFICANCE A -	.00001	SLOPE (B) -	-.24126	STD ERROR OF B -	.14711
SIGNIFICANCE B -	.05610				
PLOTTED VALUES -	30	EXCLUDED VALUES-	0	MISSING VALUES -	0

******** IS PRINTED IF A COEFFICIENT CANNOT BE COMPUTED.

The estimated percent of FMR is summarized by PHA characteristics in Table 7-4. For the 30 PHAs sampled, the average measured administrative cost per leased-unit-month ($13.16) yields an average cost of 8.1 percent of the FMR. As projected for Sector C, the average cost of $13.66 converts to 9.1 percent of the FMR. This analysis also indicates that the PHAs with measured administrative costs in excess of 8.5 percent of FMR are the non-Metros. The non-Metros generally relate to a small population, a small ACC size, and a PHA that has been operating a Section 8 program for less than 10 months.

Table 7-4

Estimated Administrative Cost per Leased-Unit-Month
As Percent of FMR in Sector C

PHA CHARACTERISTIC	PERCENTAGE
All PHAs	9.1
Type of Area	
Metro	6.3
Non-Metro	12.6
Population	
Under 50,000	14.5
50,000-100,000	5.5
100,000-500,000	5.8
Over 500,000	7.3
ACC Size	
0-70	13.5
71-130	9.5
131-399	6.7
400-999	3.7
Over 999	8.3
Number of Months Since ACC	
4-9	11.8
10-12	5.5
Over 12	9.0
Percent of Lease-Up	
Under 40	9.6
41-65	11.8
66-90	6.4
Over 90	6.7
Number of Years of Housing Experience	
Under 1	13.8
2-5	21.2
6-10	5.2
Over 10	4.5

Note: The cost incurred statistics are heavily weighted, with 23 of the 30 sampled PHAs in the program less than one year.

7.3 Alternative Estimate of Projected Costs

As described above, the projected administrative cost per leased-unit-month includes the measured cost for PHAs of 12 or less months since ACC execution and, therefore, inconsistent sets of incurred costs. When the sampled PHA population is segregated into groups of over and under 12 months since ACC, projected costs can be adjusted to include the effects of recertification and reinspection cost per leased-unit-month.

The average projected administrative cost per leased-unit-month was $33.01 for the 30 PHAs sampled and $18.31 projected to Sector C (Table 7-5). Regression of these statistics was developed to ascertain the PHA characteristics and performance that relate to costs, as shown in Table 7-6.

Table 7-6

Regression of Estimated Administrative Cost for 30 PHAs Sampled

FACTOR	CORRELATION COEFFICIENT	SLOPE	CONFIDENCE LEVEL THAT SLOPE IS NOT EQUAL TO ZERO
Population (000)	-.16	- .00	58
ACC size	-.11	- .00	43
Number of months since ACC	+.21	+1.00	73
Percent of lease-up	-.02	- .01	9
Number of years of housing experience	-.30	- .24	90

Table 7-5

Analysis of Projected Administrative Costs per Leased-Unit-Month by PHA Characteristics in Sector C

DESCRIPTION	AVERAGE PROJECTED ADMINISTRATIVE COST PER LEASED-UNIT-MONTH					
	ALL PHAs		12 OR LESS MONTHS SINCE ACC		OVER 12 MONTHS SINCE ACC	
	Cost ($)	N	Cost ($)	N	Cost ($)	N
All PHAs	18.31	30	13.22	23	60.49	7
Type of Area						
Metro	20.33	22	10.52	15	60.49	7
Non-Metro	15.86	8	15.86	8	-	-
Population						
Under 50,000	19.42	9	19.42	9	-	-
50,000 to 100,000	9.16	6	8.74	5	14.69	1
100,000 to 500,000	23.75	8	6.41	6	73.01	2
Over 500,000	28.12	7	15.47	3	63.85	4
ACC Size						
0-70	17.00	7	17.40	6	14.69	1
71-130	17.58	6	13.13	5	43.88	1
131-399	11.45	7	11.45	7	-	-
400-999	7.83	4	7.83	4	-	-
Over 999	98.84	6	.32	1	131.72	5
Number of Months Since ACC						
4 to 9	15.30	10	15.30	10	-	-
10 to 12	10.43	13	10.43	13	-	-
Over 12	60.49	7	-	-	60.49	7
Percent of Lease-Up						
Under 40	13.89	9	13.89	9	-	-
41 to 65	17.86	8	15.68	6	76.76	2
66 to 90	21.25	9	8.62	5	83.85	4
Over 90	22.91	4	11.83	3	43.88	1
Number of Years of Housing Experience						
Under 2	30.49	11	19.32	7	57.20	4
2 to 5	26.17	2	26.17	2	-	-
6 to 10	9.87	5	9.87	5	-	-
Over 10	11.70	12	7.67	9	79.13	3
	AVERAGE FEE OVER (UNDER) PROJECTED COST PER LEASED-UNIT-MONTH					
All PHAs	(2.43)	30	2.56	23	(43.86)	7
Type of Area						
Metro	(3.71)	22	6.05	15	(43.86)	7
Non-Metro	(.86)	8	(.86)	8	-	-
Population						
Under 50,000	(3.83)	9	(3.83)	9	-	-
50,000 to 100,000	7.18	6	7.28	5	5.88	1
100,000 to 500,000	(8.22)	8	8.91	6	(56.91)	2
Over 500,000	(11.35)	7	1.82	3	(49.21)	4
ACC Size						
0-70	(1.28)	7	(1.91)	8	5.88	1
71-130	(1.92)	6	2.46	5	(27.64)	1
131-399	4.74	7	4.74	7	-	-
400-999	8.35	4	8.35	4	-	-
Over 999	(84.85)	6	16.89	1	(117.09)	5
Number of Months Since ACC						
4 to 9	(.21)	10	(.21)	10	-	-
10 to 12	6.27	13	6.27	13	-	-
Over 12	(43.86)	7	-	-	(43.86)	7
Percent of Lease-Up						
Under 40	1.45	9	1.45	9	-	-
41 to 65	(1.85)	8	.15	6	(62.40)	2
66 to 90	(5.58)	9	6.55	5	(65.86)	4
Over 90	(5.76)	4	5.81	3	(27.64)	1
Number of Years of Housing Experience						
Under 2	(14.59)	11	(3.89)	7	(40.23)	4
2 to 5	(10.64)	2	(10.64)	2	-	-
6 to 10	6.21	5	6.21	5	-	-
Over 10	4.07	12	8.13	9	(64.43)	3

Note: Alternative estimation method used to project costs.

Of these, only the number of years of experience provides any indication of a possible relationship. The correlation coefficient of .30 (absolute value) is relatively high for the small size of the sample. The 90-percent confidence that the slope is negative indicates that the PHAs with more experience have lower measured administrative costs per leased-unit-month (Figure 7-1 and Table 7-3). This is at variance with the preliminary fee analysis findings (Section 6), in which the PHAs with greater experience incurred higher measured preliminary costs per unit leased than did the PHAs with less experience. Although the correlation coefficient for the variable, "number of months since ACC" is not very high, the value of the statistic of the average fee for Sector C for PHAs in the program more than 12 months seems, to us, to be the most usable. This value is $17.40 per unit-month and exceeds the Sector C fee received by $0.63.

Other regressions of the estimated administrative cost per leased-unit-month were performed in an attempt to find PHA fees and payment patterns and their relationship to the costs. These are summarized in Table 7-7.

Table 7-7

Regression of Estimated Administrative Cost for 30 PHAs Sampled

FACTOR	CORRELATION COEFFICIENT	SLOPE	CONFIDENCE LEVEL THAT SLOPE IS NOT EQUAL TO ZERO (%)
Number of leased-unit-months	-.13	-.00	51
Administrative fee per unit-month	+.10	+.71	41
Fair Market Rent, 2-bedroom unit, nonelevator building	-.13	-.05	52
Number of units under lease	-.06	-.00	18

These regressions also indicate no correlation or pattern of the estimated administrative cost per leased-unit-month.

7.4 Adequacy of Current Structure--Measured Costs

On the average, the administrative fee granted per unit-month exceeded the measured administrative cost per leased-unit-month by $2.92 for the 30 PHAs sampled and a projected $2.22 for Sector C (Table 7-2). As presented in Table 7-1, the difference between the grant and the measured cost ranged from an excess grant of $16.82 to an excess measured cost of $35.55. The average difference between grant and measured cost by PHA characteristics showed no consistent pattern.

The measured administrative cost per leased-unit-month is 8.1 percent of the FMR for the 30 PHAs sampled and 9.1 percent as projected for Sector C. Of the 30 PHAs sampled, 70 percent had a measured administrative cost per leased-unit-month of less than 8.5 percent, and, as projected for Sector C, approximately 72 percent had measured costs of less than 8.5 percent. As expected (because of the method used to derive the projected administrative cost per leased-unit-month), the average projected cost is substantially less for the 23 PHAs sampled of a year or less since ACC ($11.87) than for the seven PHAs sampled of over a year since ACC ($102.46). The corresponding averages as projected for Sector C are $13.22 and $60.49, respectively.

The analysis of the average projected costs by PHA characteristic stratifications revealed no describable trends. The PHAs of one year or less since ACC appeared to have a relatively constant average projected cost by ACC size. The Sector C projection, however, has more dramatic fluctuations and tends to discount an overall conclusion.

The analysis for all 30 PHAs as projected to Sector C indicates a trend of increasing average projected cost as the percent of lease-up increases. The analysis for the 30 PHAs sampled, however, indicates increasing average projected costs per leased-unit-month until the PHA reaches 90 percent of lease-up: PHAs with over 90 percent of lease-up show a dramatic decrease in average projected cost.

For the 30 PHAs sampled, regressions of the projected administrative cost per leased-unit-month against PHA characteristics are summarized in Table 7-8. No significant patterns were evident for the two groupings of PHAs.

Table 7-8

Regression Statistics for Projected Administrative Cost per Leased-Unit-Month for Sampled PHAs

DESCRIPTION	ALL PHAs			12 OR LESS MONTHS SINCE ACC			OVER 12 MONTHS SINCE ACC		
	r	B	Confidence Interval That Slope ≠ 0 (%)	r	B	Confidence Interval That Slope ≠ 0 (%)	r	B	Confidence Interval That Slope ≠ 0 (%)
Number of months since ACC	+.42	12.82	98	+.03	.18	9	+.32	35.42	54
Population	+.10	.00	49	-.21	.00	66	-.02	.00	2
ACC size	+.31	.04	90	-.22	.01	69	+.18	.04	31
Percent of lease-up	+.09	.30	39	-.09	.04	32	-.13	.95	22
Number of leased-unit-months	+.34	.01	94	-.24	.00	74	+.11	.01	18
FMR	-.01	.01	2	-.21	.07	68	-.21	1.07	37
Number of units leased	+.40	.09	97	-.23	.01	71	+.20	.06	34
Number of years of experience	-.07	.33	26	-.34	.31	89	NA	NA	NA
Fee	-.12	5.19	47	+.11	.79	38	-.21	12.64	37

Legend:

r - correlation coefficient
B - slope

For all 30 PHAs as one group, significant variables were identified by:

- number of months since ACC;
- ACC size;
- number of leased-unit-months; and
- number of units leased.

However, a careful review of these characteristics leads to the conclusion that any significance in the perceived relationship results from the methodology employed to derived projected costs (i.e., the relationship is inherent). These relationships are as follows:

- Number of months since ACC. The projected cost was the measured cost for the PHAs of one year or less since ACC; therefore, measured costs were attributed to the total leased-unit-months to date. For PHAs over

one year since ACC, the measured cost for recertification and reinspection was attributed to only a relatively small proportion of the total leased-unit-months to date; therefore, the projected cost per leased-unit-month was higher than the measured cost. As a result, the regression should have found a significant correlation.

- ACC size. Five of the seven PHAs over one year since ACC were also five of the seven PHAs with more than 749 ACC units (Table 7-5). As a result, the trend introduced by the projected cost methodology against the number of months since ACC had the secondary effect of introducing the same trend to the ACC size.

- Number of leased-unit-months. In addition to being in the large ACC grouping, five of the PHAs over one year since ACC were over 65 percent leased-up, whereas 15 of the 23 PHAs of one year or less since ACC were under 65 percent leased-up (Table 7-5). This combination resulted in the PHAs with the older programs also having a relatively large number of units leased and leased-unit-months. As a result, the projected cost methodology also introduced secondarily a trend in the cost against the number of leased-unit-months.

- Number of units leased. Same as for number of leased-unit-months, above.

7.5 Adequacy of Current Structure--Projected Costs

The 30 PHAs sampled had an average projected administrative cost of $16.93 (when estimated on a total sample of cumulative unit-months-to-date cost), or $2.43 more than the administrative grant as projected to Sector C (Table 7-5). The fee exceeded the projected cost for PHAs of one year or less since ACC by $4.19 for the PHAs sampled and by $2.56 for Sector C. The PHAs with the older programs, however, had excess projected costs of $86.74 and $43.86, respectively.

The analysis of the difference between the administrative fee and the projected cost by characteristic stratifications was inconclusive. However, the regression by characteristic revealed one possible correlation (Table 7-9): PHAs of one year or less since ACC against the number of years of experience in housing. A correlation coefficient of .35 (absolute value) is relatively high, considering the small sample size (23 PHAs) in that category. A 91-percent confidence was achieved that the relationship is positive (i.e., that the administrative fee paid is closer to the cost incurred for PHAs with more experience in housing programs).

Table 7-9

Regression Statistics for Fee over (under) Projected Administrative Cost for Sampled PHAs

DESCRIPTION	ALL PHAs			12 OR LESS MONTHS SINCE ACC			OVER 12 MONTHS SINCE ACC		
	r	B	Confidence Interval That Slope ≠ 0 (%)	r	B	Confidence Interval That Slope ≠ 0 (%)	r	B	Confidence Interval That Slope ≠ 0 (%)
Number of months since ACC	-.42	12.65	98	+.04	.24	13	-.32	36.52	55
Population	-.09	.00	49	+.24	.00	74	+.00	.00	0
ACC size	-.31	.04	91	+.25	.01	75	-.19	.04	34
Percent of lease-up	-.09	.28	36	+.14	.07	47	+.14	1.02	23
Number of lease-unit-months	-.34	.01	94	+.27	.00	80	-.11	.01	19
FMR	+.03	.06	10	+.33	.11	89	+.23	1.16	39
Number of units leased	-.40	.09	98	+.26	.02	77	-.20	.06	35
Number of years of experience	+.06	.33	26	+.35	.32	91	NA	NA	NA
Fee	+.14	6.19	54	+.03	.21	10	+.23	13.64	39

Legend:

r - correlation coefficient
B - slope

7.6 Evaluation of Current Structure--Conclusions

The current administrative fee structure has basically the same problems as the preliminary fee structure. The administrative fee structure is simple to the extent that the concept is superficially simple and the PHA can readily determine its budget. In practice, however, the administrative fee structure is too complicated to make operational for cost accountability. The accounting systems in use would have to be modified to accumulate the administrative versus the preliminary costs properly.

An accounting system that allows the PHA to identify (1) true costs and cost trends and (2) the status of costs incurred against the budget and anticipated future costs is generally not found in PHAs. As with the preliminary fee structure, such an accounting system could provide the PHAs with the ability to identify and reserve unexpended administrative fees to be utilized for future operations. This provides an incentive to the PHAs to operate the Section 8 program in an efficient manner.

The current administrative fee structure is sensitive to equitable differences in costs between localities only to the extent that the FMR is a fair indicator of differences in salary and supply cost. If the FMR is not a fair indicator, the actual costs of operating the program could be higher or lower than the fee structure indicates. If the fee structure overfunds the PHA (compared to the actual costs incurred), the (potential) recipients might receive better services from the PHA, or the PHA might not operate in the most efficient manner. Conversely, if the fee structure underfunds the actual costs, the (potential) recipients might receive a lower level of services, or the PHA might operate more efficiently.

In any case, the FMR basis of the administrative fee as an effective and equitable relationship to costs needs to be examined. Should pressure to increase the FMRs be successful, certainly the disparity between fees granted and costs incurred will diminish. In addition, the FMR relationship with costs may be revealed to be a weak one.

8. ANALYSIS OF ALTERNATIVE FEE STRUCTURES

This section considers modifications to the present preliminary and FMR fee structure and derives alternative allowance methods for discussion. The alternative structures considered are neither exhaustive nor necessarily representative of recommended fee structures. The analysis focuses on issues from our findings relevant to reimbursement.

This preliminary analysis may lead to further research and the development of specific recommendations for an improved reimbursement system.

8.1 Introduction

This subsection describes the alternative allowance methods considered and the criteria used to evaluate each method.

8.1.1 Alternative Fee Structures

Four basic approaches for an allowance method are considered:

- Type 1, a formula retaining the present preliminary and FMR fee structure.
- Type 2, a unit cost fee based on several simple variables related to agency and locality characteristics.
- Type 3, a formula based on the attainment of specific program goals and levels of service activity.
- Type 4, a method based on the measurement of actual resources expended for Section 8 services. This approach relies on detailed recording of hours, materials, and costs.

The methods may take the form of tabulated relationships and rules. The implementation of each approach would involve the estimation of the formula (parameters) and the creation of associated charts, tables, and relations. Finally, each formula must be applied to the data collected from the sites as a test and scored objectively against the criteria for selection.

8.1.2 Criteria for Evaluation

There is a uniform basis for comparing alternative allowance schemes. The following objectives (or criteria) score the alternative methods generated:

- simplicity, acceptability, and applicability to all PHAs;
- continuity with existing procedures and available data, including cost of implementation;
- accountability to allow agencies to recover actual costs as they accrue;
- equitableness, to be sensitive to fair differences in actual costs from one locality to the next;
- dynamics and flexibility to account for trends in resource costs and other changes as the program reaches maturity;
- predictability for forecasting reimbursement, so that PHAs can budget accordingly; and
- incentives, or lack of disincentives, for attaining program objectives efficiently.

These criteria represent the factors that must be considered to evaluate each formula type considered. Within each section, the proposed scheme is scored objectively by these measures.

The following subsections are devoted, in turn, to the derivation of a model formula and discussion of each type of structure.

8.2 Type 1 Approach--Existing Fee Structure

The Type 1 approach is to retain the current preliminary and FMR related fee structure. Section 6 analyzed preliminary fees in detail. The analysis is continued here to determine the most reasonable fee per unit for preliminary functions and the best factor (percent) to be applied to the FMR to reimburse continuing effort.

8.2.1 Preliminary Fee

The preliminary cost incurred in the sampled sites has been collected from PHAs at various stages of program development. The cost represented as cost incurred per unit leased may not be indicative of the cost per unit when the program reaches equilibrium, or "steady state."

Figure 8-1 displays the relation between preliminary fee incurred per unit leased and the percent of units leased of the ACC allocation. The regression line leaves a large variance unexplained; regardless, it reveals a statistically significant trend.

The data reveal that the preliminary cost per unit is lower for PHAs with higher lease-up. The fee granted for intake should, of course, reflect the average cost per unit attained at equilibrium, or "steady state," lease-up percent. Ninety-percent lease-up is a conservative figure for steady-state lease-up; some PHAs have attained 100 percent.

Figure 8-2 displays the methodology used to forecast steady-state preliminary cost per unit from the sampled data. The observed cost per unit is compared to the trend line value at the observed lease-up percent. This ratio is applied to the trend line value at steady-state lease-up, for example, 90 percent, to project the equilibrium cost per unit for the site.

Figure 8-3 displays the distribution of projected preliminary cost per unit. Although the average observed preliminary cost per unit is $241, the average projected cost per unit is significantly lower at $187. The findings indicate that 80 percent of the PHAs might incur costs less than $230 per unit. This analysis shows that granting $275 per unit may cover or exceed the costs incurred for most agencies in Sector C.

8.2.2 Administrative Fee

The administrative costs have been analyzed in Section 7. This discussion considers the implications for adjusting the 8.5-percent rate applied to FMRs for reimbursement of continuing effort.

Most (77 percent) PHAs sampled reported informally that the current 8.5-percent fee is too little to reimburse them for administrative

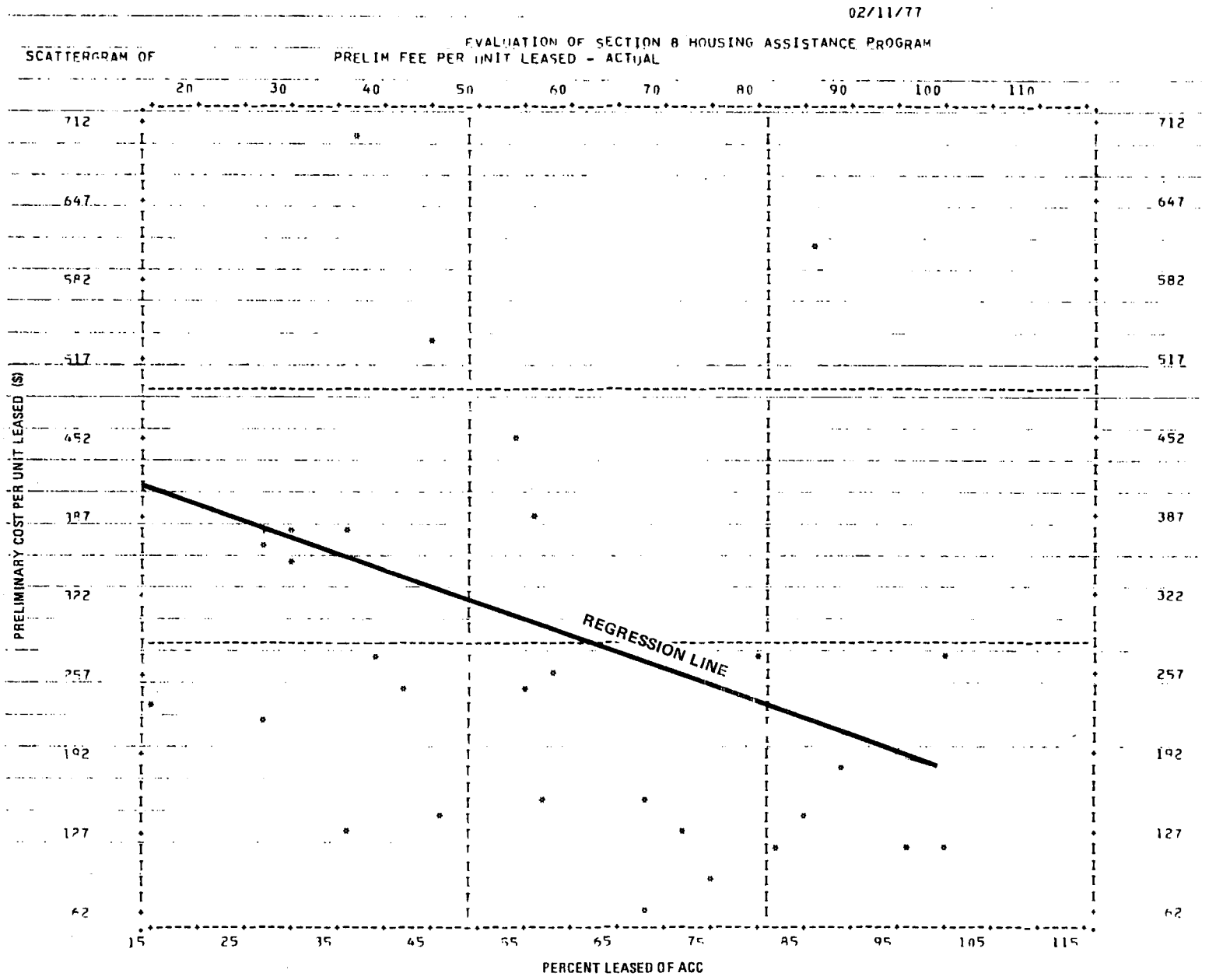
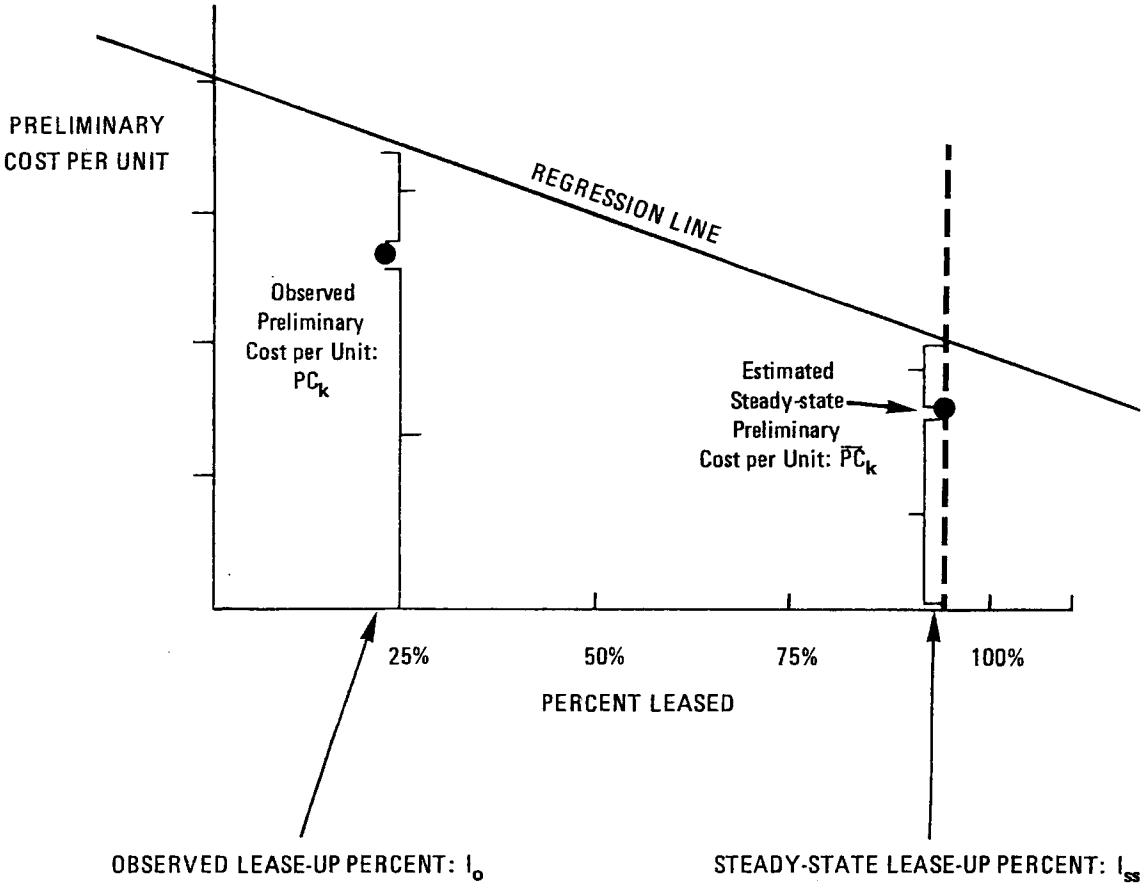


Figure 8-1: Preliminary Cost per Unit Leased Versus Percent Lease-up for Sampled PHAs

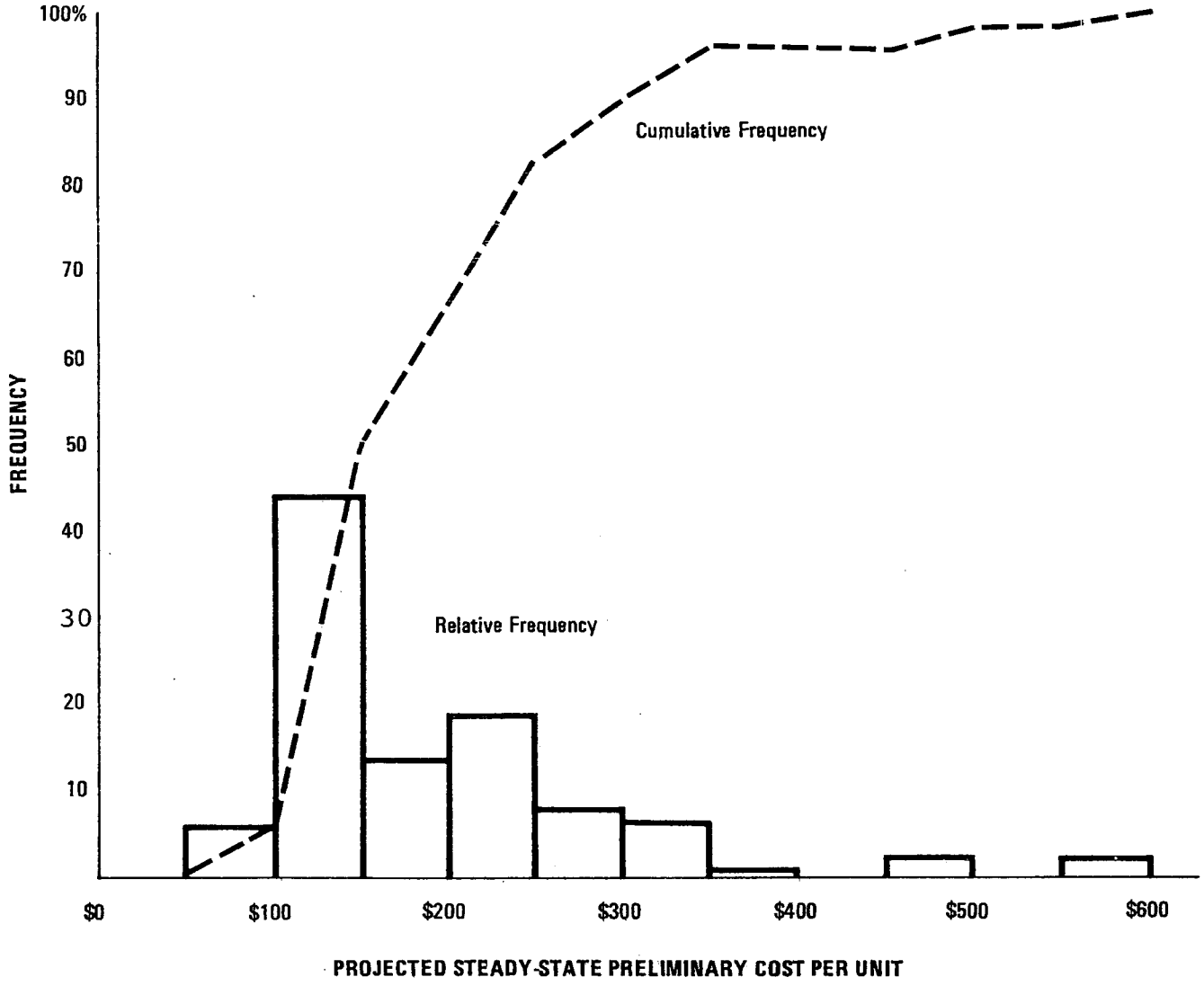


Regression line: $a + bI$

Steady-State Cost:

$$\overline{PC}_k = \left(\frac{a + b(I_{ss})}{a + b(I_0)}\right) PC_k$$

Figure 8-2: Methodology to Forecast Steady-State Preliminary Cost per Unit from Observed Preliminary Cost per Unit ($PC_k \longrightarrow \overline{PC}_k$)



Median = $139
Mean = $187

Figure 8-3: Distribution of Projected Steady-State Preliminary Cost per Unit in Sector C

costs; no agencies claimed they were receiving too much. The analysis has shown that some PHAs are not receiving fees adequate to compensate for administrative effort.

Figure 8-4 displays the distribution of the percent of FMRs required to reimburse the PHAs sampled for their administrative costs. Roughly, 72 percent are overcompensated by the current 8.5-percent fee. The findings indicate that 80 percent of the PHAs might incur administrative costs less than 8.8 percent of FMR. However, 92 percent of the PHAs claiming that the current fee is inadequate reported that a fee between 10 and 15 percent would be required to compensate them for administrative efforts.

The available data are insufficient to determine whether the 8.5-percent fee is adequate. The PHA costs incurred to date are less than 8.5 percent; however, most of the PHAs (77 percent of those sampled) have been operating the program for one year or less. Examining only those agencies with a program of over one year indicates that fee is inadequate for their costs (Table 7-5).

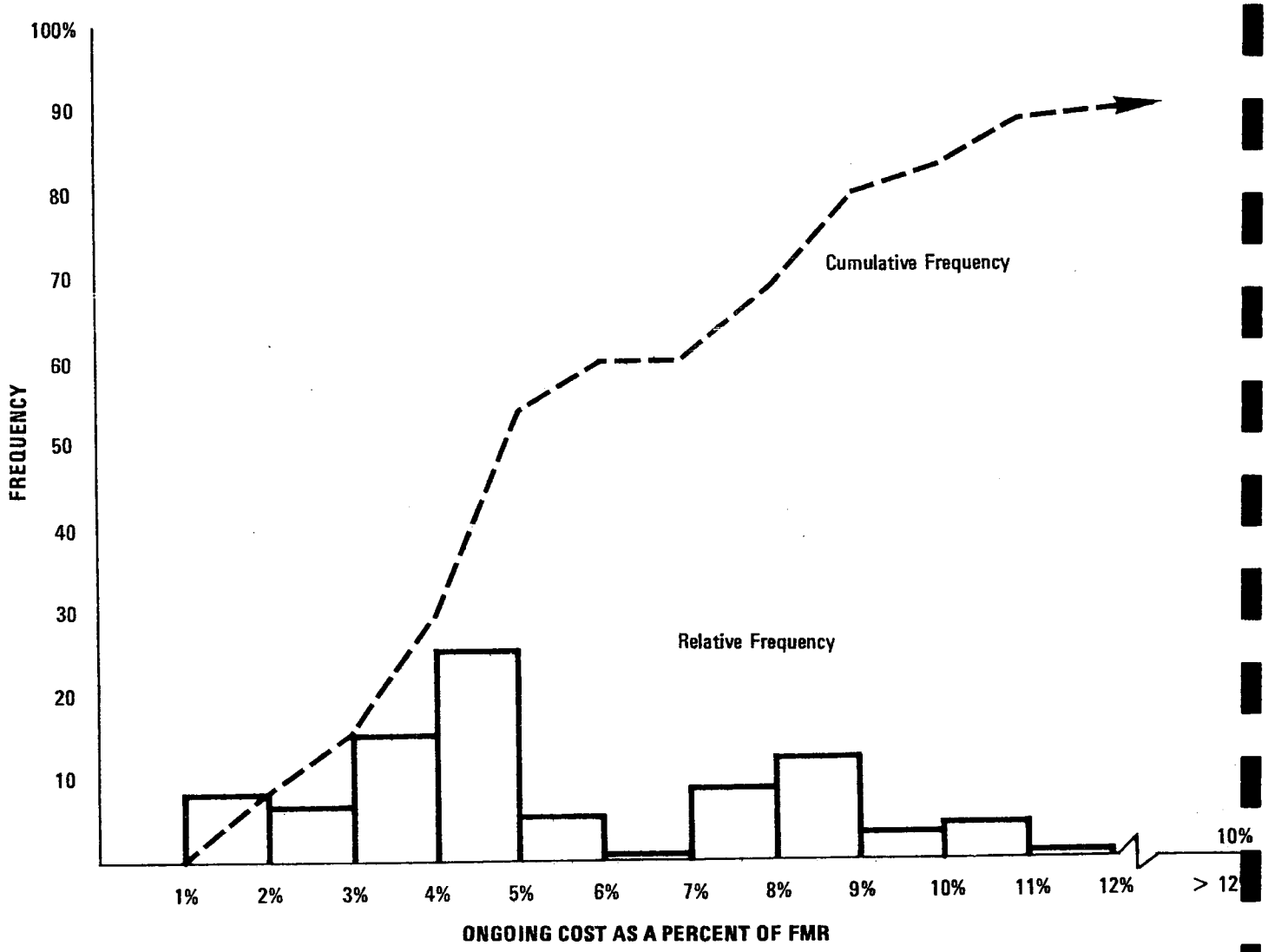
8.2.3 Discussion

The major issues of equitableness and accountability have been addressed in preceding sections. Prior analyses focused on the 8.5-percent rate. An interesting question is whether there is a basis for applying any rate to the FMR.

Figure 8-5 is a scatter plot of administrative cost incurred by local FMR for a two-bedroom nonelevator unit. There is little apparent correlation (in fact, there is negative, if statistically insignificant, correlation). This means that there is no basis for discriminating the administrative fee granted by the FMR alone. A flat fee per unit-month is more equitable.

Of course, this approach is contingent on existing procedures, definitions, and data even if the parameters (i.e., 8.5 percent) are revised.

The preliminary effort is reimbursed based on a budget justification. This approach presents no particular incentives for efficient use of resources but allows the PHA to schedule resources and staffing with ease.



Median = 5%
Mean = 9%

Figure 8-4: Distribution of Ongoing Cost as a Percent of FMR in Sector C

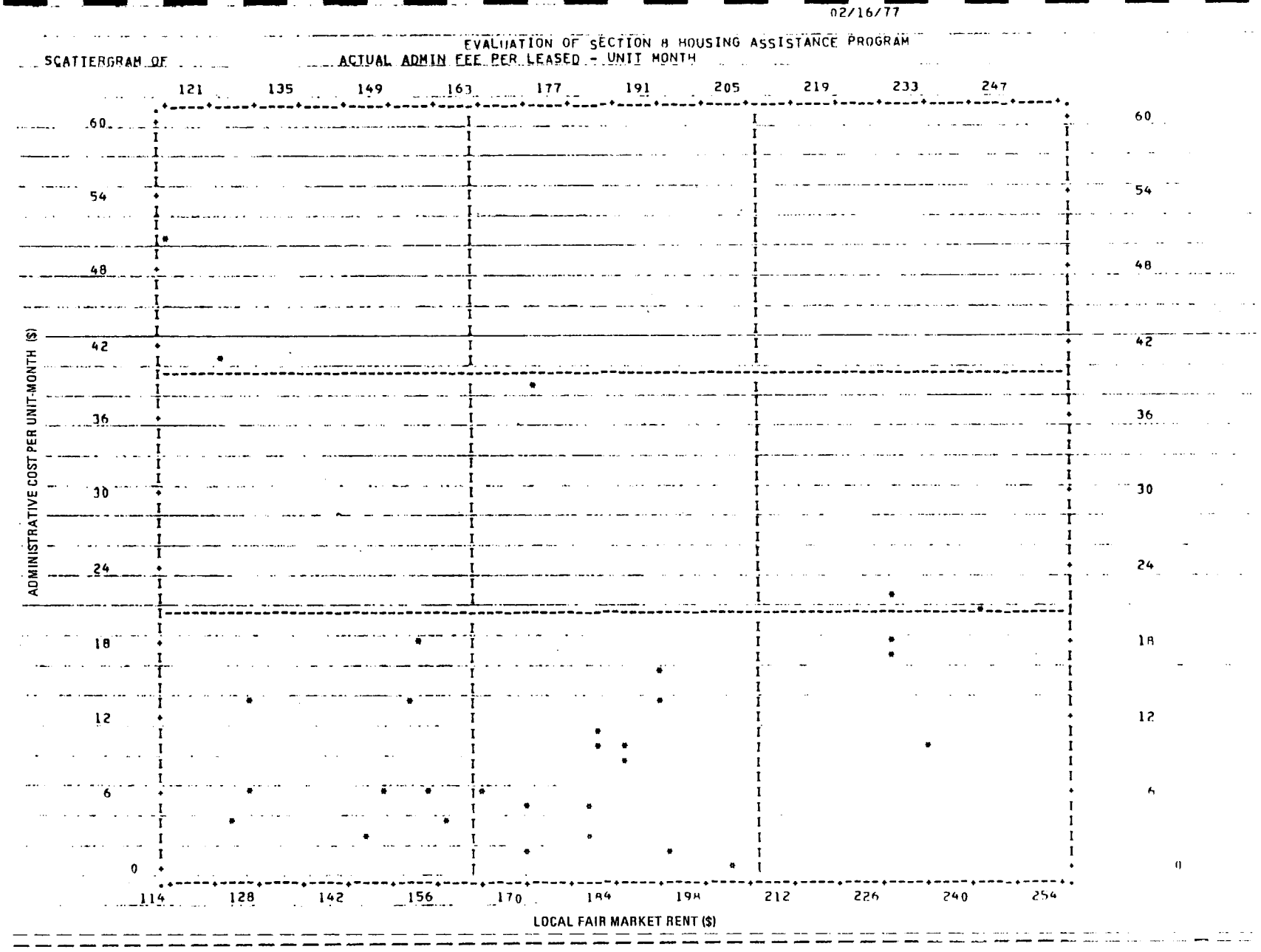


Figure 8-5: Administrative Cost Incurred Versus Local Fair Market Rent for Sampled PHAs

The PHAs generally regard the conformation of the flat preliminary fee and the FMR administrative structure as an incentive to lease units as rapidly as possible.

8.3 Type 2 Approach--Unit Cost

The Type 2 approach derives a relation between the unit cost expenditures and agency and local characteristics. The reimbursement relates to the scale of operations and the general factors influencing resource expenditures only indirectly related to the actual costs incurred.

8.3.1 Derivation

To assess the unit cost for a PHA adequately, it is necessary to relate costs of preliminary and ongoing efforts to the lease-up schedule for the PHA. The rate of lease-up yields the number of leased unit-months within a time frame. The leased unit-months relate to the ongoing effort required.

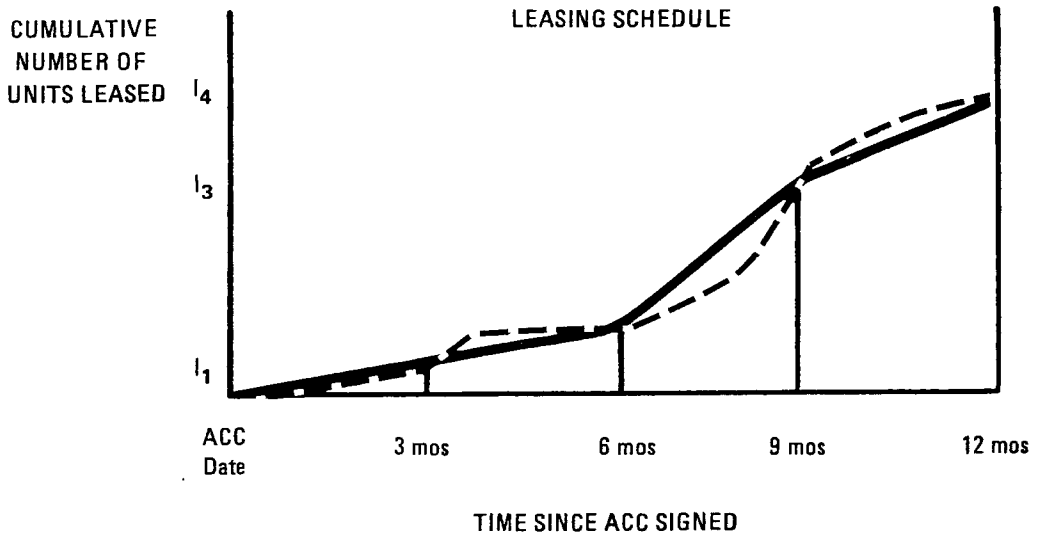
As part of the application to participate, the PHAs are required to propose a leasing schedule specifying the number of units to be leased by the end of each 3-month period. The PHAs generally have a relatively small volume of units to be leased in the first two quarters, with greater activity in the final quarters. As a result, a one-year straight time approximation of lease-up is inappropriate; it would seriously overestimate the number of leased unit-months. Fortunately, quarterly data enable a better approximation.

Figure 8-6 displays the derivation of a unit cost formula for reimbursement from the leasing schedule.

The cost coefficients in the formula are averages. For a better fit to the actual costs incurred, the cost coefficients may be stratified by agency or locality characteristics. The analysis of functions in Section 5 and the analysis of preliminary and administrative fees in Sections 6 and 7 are the basis for potential stratifications.

8.3.2 Discussion

The approach is potentially more accountable and equitable than the existing fee structure. This depends on the strata used for the cost parameters in the formula, as discussed above.



Number of units leased in year $= I_4$

Number of unit months (approx) $= 3(I_1 + I_2 + I_3) + (3/2)*I_4$

$$\text{COST PER UNIT} = \frac{\text{SSPCPU} * I_4 * \text{ACPUM} * (3(I_1 + I_2 + I_3) + (3/2)*I_4)}{\text{ACC Size or } I_4}$$

SSPCPU = Steady-State preliminary cost per unit = (Avg.)

ACPUM = Administrative Cost per Unit-Month = (Avg.)

Figure 8-6: Derivation of Unit Cost Formula

The method is also simpler than the present system, because it may not require a budget justification for preliminary costs. It is presumed that the calculation is performed by HUD, based on agreed lease-up schedules. The PHAs would not need to know about preliminary versus ongoing costs. For budgeting, the PHA would know exactly the funding to be received for administering the program. With a fixed allocation, the PHA has incentive to minimize costs within the allocation.

8.4 Type 3 Approach--Based on Service Levels

The Type 3 approach derives a reimbursement formula based on attaining specific program goals and levels of service activity. The formula relates the level of service activity and normalized service costs to program expenditures.

8.4.1 Derivation

Table 8-1 displays the derivation of the Type 3 formula, including the basic functions, associated service indices, and operational coefficients.

The service indices are simple measures of the level of activity within each function. These indices have been discussed in Section 5 in detail. The client services function is separated into preliminary and continuing services, although the types of services provided are not distinguished. Preliminary client service costs apply directly to leasing up units, while continuing client services apply to units already leased.

The formula derived in Table 8-1 is a linear combination of service levels attained and represents direct costs multiplied by an overhead factor. The figures on the table are strictly averages and do not reflect the different environments of PHAs.

Figure 8-7 represents a scatter plot of Type 3 formula projected total cost by actual total cost. The fit is surprisingly good (68-percent correlation), considering that no stratification is used in this simplified version of the formula. For example, if the operational (B) coefficients for inspection were stratified by PHA location (Metro/non-Metro), the projections would become a closer fit to the observed costs. Similarly, the fit would be improved if the overhead rate were stratified by the level of related activity (whether or not the PHA is currently administering other programs). These are considerations for estimating a recommended

Table 8-1

Derivation of Formula Based on Service Levels

j	FUNCTION j	SERVICE INDEX (SI_j)	OPERATIONAL COEFFICIENT (B_j) DIRECT COST PER SI
1	OUTREACH	Certifications per eligible family (%)	$1,910
2	CERTIFICATION	Certificates issued	$18
3	INSPECTION	Number of inspections	$15
4	PRELIMINARY CLIENT SERVICES	Units leased	$42
5	CONTINUING CLIENT SERVICES	Leased unit-months	$1.92
6	PAYMENTS	Number of payments	$2.68

If site K has service level $SI = (SI_1, \ldots, SI_6)$ then reimbursement is:

$$COST_k(SI) = (1 + R^{(k)}) \left[\sum_j B_j^{(k)} SI_{kj}\right]$$

$$= 1.94 \left[1910SI_{k1} + 18SI_{k2} + 15SI_{k3} + 42SI_{k4} + 1.92SI_{k5} + 2.68SI_{k6}\right]$$

$R^{(k)}$ = Overhead rate = 0.94

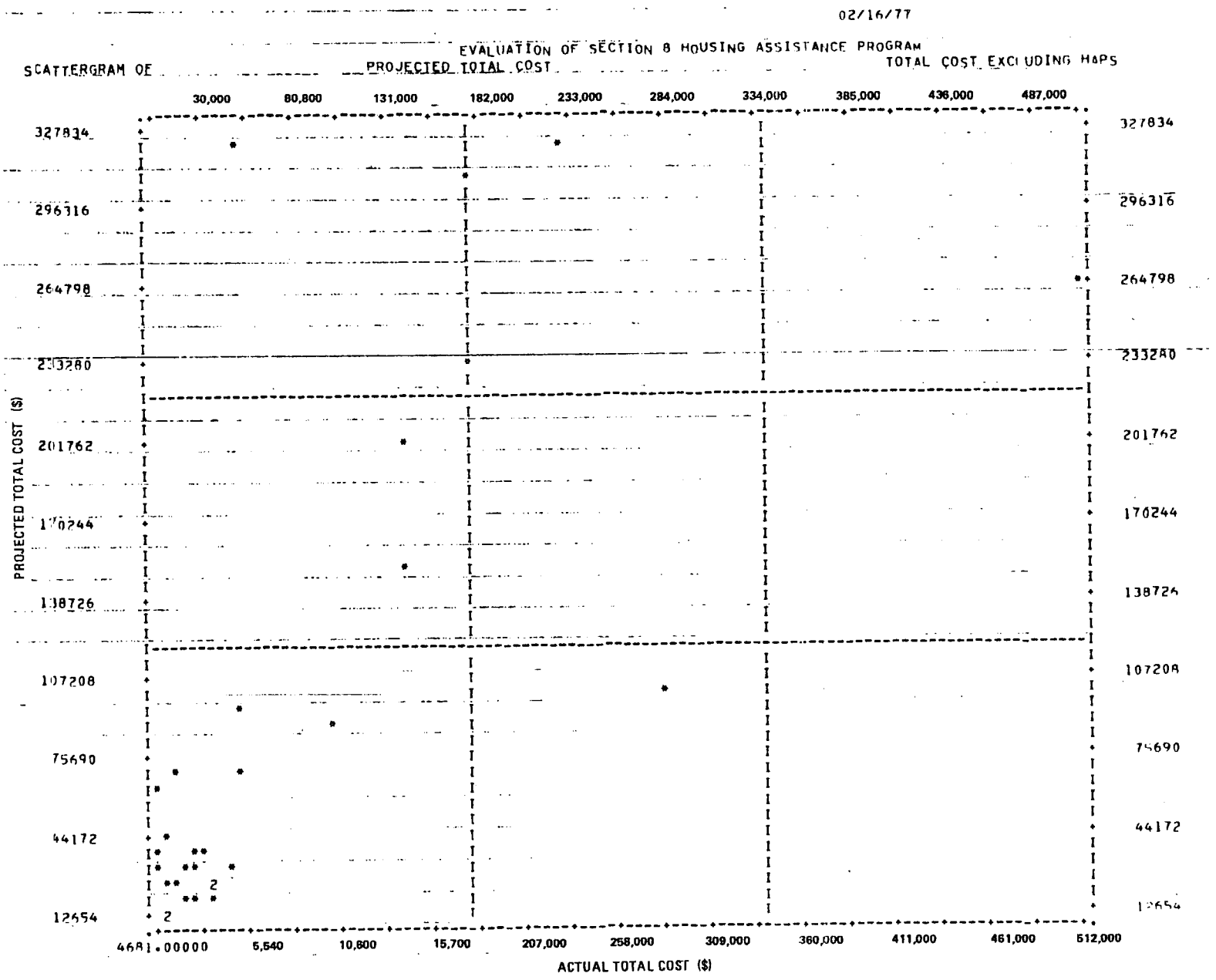


Figure 8-7: Type 3 Projected Total Cost Versus Actual Total Cost for Sampled PHAs

formula; however, this simpler derivation from the data demonstrates the feasibility of this approach.

8.4.2 Discussion

With the Type 3 approach, there is a great potential for an incentive structure. The various service levels are designed to reflect the degree of attainment of goals; positive incentives are expected if the allowance is tied to the service levels attained.

This approach is potentially more accountable and equitable than the existing fee structure. This depends on the strata used for the operational coefficients (B^1s) and overhead rate.

It may be more difficult for PHAs to budget using this approach. The problem lies in the uncertainty of the levels of service that will be attained.

8.5 Type 4 Approach--Monitoring of Actual Costs

The type 4 approach derives a reimbursement based on the measurement of actual resources expended for Section 8 services. This system relies on detailed recording of hours, materials, and costs.

8.5.1 Derivation

The cost of personnel services and other resources can be directly identified with a cost center (program) to determine program cost.

The development of cost data would be base don the following principles:

- All costs relating to each program are accrued in the cost category (function) as of the end of each period for which costs are determined.
- When costs do not apply directly to one cost category, the basis for combining or allocating them is documented.
- When cost techniques are used in allocating costs, both general and detailed descriptions of the techniques are included in the accounting instructions.

8.5.2 Cost Category

Costs incurred to accomplish any Section 8 program objective are classified into two cost categories:

- Preliminary costs: an amount paid to the PHA on the basis of all direct and indirect costs associated with the initial taking into the program of families suffficient to occupy the units allocated.

- Ongoing administrative costs: an amount paid to PHAs for each managerial function performed to maintain the continuing operation of the program after initial lease-up is achieved for each allocated unit. Costs consist of all direct and indirect costs associated with a unit after it has been leased for the first time.

Table 8-2 displays these cost categories (functions) and provides examples of the types of cost charged to each.

8.5.3 Collection of Cost Data

Measurement of actual resources expended for Section 8 services consists of three major activities: time reporting and payroll, direct and indirect costs, and budget plan.

8.5.3.1 Time Reporting and Payroll System

Direct labor and employee benefits represent approximately 80 to 90 percent of Section 8 direct costs. With such a large proportion of costs in this one category, it is essential that PHAs account accurately for time worked by their staff. The time reporting system collects time worked by each employee and converts the time to salary cost, based on the employee payroll records. In addition to accumulating costs by function and program, the time reporting system provides the basis for allocating unassigned employee time and benefits and certain general and administrative costs to programs.

For Section 8 reporting purposes, the time reporting system collects employees costs related to preliminary and ongoing administrative cost categories. Each PHA employee providing Section 8 preliminary services, such as recertification, reinspection, and outreach,

Table 8-2

Cost Categories

COST CATEGORY	DESCRIPTION	EXAMPLES
Preliminary	Preliminary costs consist of all direct and indirect costs associated with initially taking into the program sufficient families to occupy the units authorized. (Before it has been leased for the first time).	Salaries and fringe benefits of all staff personnel who are directly engaged in providing services to recipients. This includes staff time devoted to: 1. publicizing the program to lower-income families and to owners, property managers, and real estate brokers; 2. receiving and screening applications; 3. certifying income; 4. providing program and market information to participants; 5. reviewing requests for lease approval; 6. inspecting units; 7. negotiating contracts with owners; and 8. administrative overhead costs.
Ongoing Administrative	Ongoing administrative costs consist of all direct and and indirect costs associated with a unit after it has been leased for the first time.	Salaries and fringe benefits of all staff personnel who are directly engaged in providing services to recipients. This includes staff time devoted to: 1. recertifying income; 2. providing housing information and assistance; 3. reinspecting leased units; 4. taking in new families to replace those who drop out; 5. paying subsidies to landlords; and 6. administrative overhead costs.

or providing any of the supportive activities, would charge time to various Section 8 program codes. These program codes would identify the standard Section 8 program functions.

The program code, when related to the appropriate function code, would identify the distribution of Section 8 time between preliminary and ongoing general administration. These program and function codes would be recorded on employees' timesheets, along with the associated hours expended on each. The cost of direct employee service time is calculated in the time reporting and payroll system. Following the computation of the direct salary costs of each program and function, employee benefits would then be calculated and allocated.

8.5.3.2 Direct and Indirect Costs

Particular attention must be given to the proper and consistent accounting for direct and indirect costs. In general, a direct cost is one that:

- can be directly associated with a particular grant or program (examples are salaries, travel, and material costs);
- has no intervening basis for allocation; and
- can be directly associated with a cost category.

An indirect cost is one that, because of its incurrence for common or joint objectives, cannot be readily identified as a direct cost. For the Section 8 program, examples of indirect costs are agency general management; rent, heat, and light; accounting; and maintenance.

Other costs incurred for the benefit of more than one program can be allocated by some equitable base. Examples of allocation bases are direct labor-hours, floor space occupied, and salary costs.

8.5.3.3 Budget Plan

The budget is a quantitive expression of a plan of action that establishes expectation regarding future income, financial status, and supporting plans. It is therefore designed to control a variety of functions, including planning, measuring performance, authorizing corrective action, and controlling. Specifically, the budget is a management tool that can be

used to ensure that (1) results of operations conform, on both an organizational and a program level, as closely as possible to established goals and (2) expenditures are being incurred at a rate and amount commensurate with available resources. The establishment of standard policies and procedures regarding the preparation and utilization of the budgeting system is essential to the effective and efficient management of PHA and Section 8 resources. Figure 8-8 displays the budget flow and relationships.

8.5.4 Discussion

Implementation of the Type 4 method would vary from one locality to the next; the site characteristics that may affect the cost and the expenditure of resources include the:

- scale of operations;
- level of related activities performed; and
- time or experience factor.

Type 4 method allows agencies to recover, by the measurement of actual resources expended, actual costs as they accrue. In addition, the approach automatically accounts for cost and other trends.

The type 4 method is applicable to all PHAs in the program but is not consistent with most existing procedures and available data. For this reason, its implementation may involve significant cost for some of the PHAs. A further disadvantage of the Type 4 method is the presence of disincentives for efficient program administration. That is, the reimbursement is independent of the levels of cost incurred.

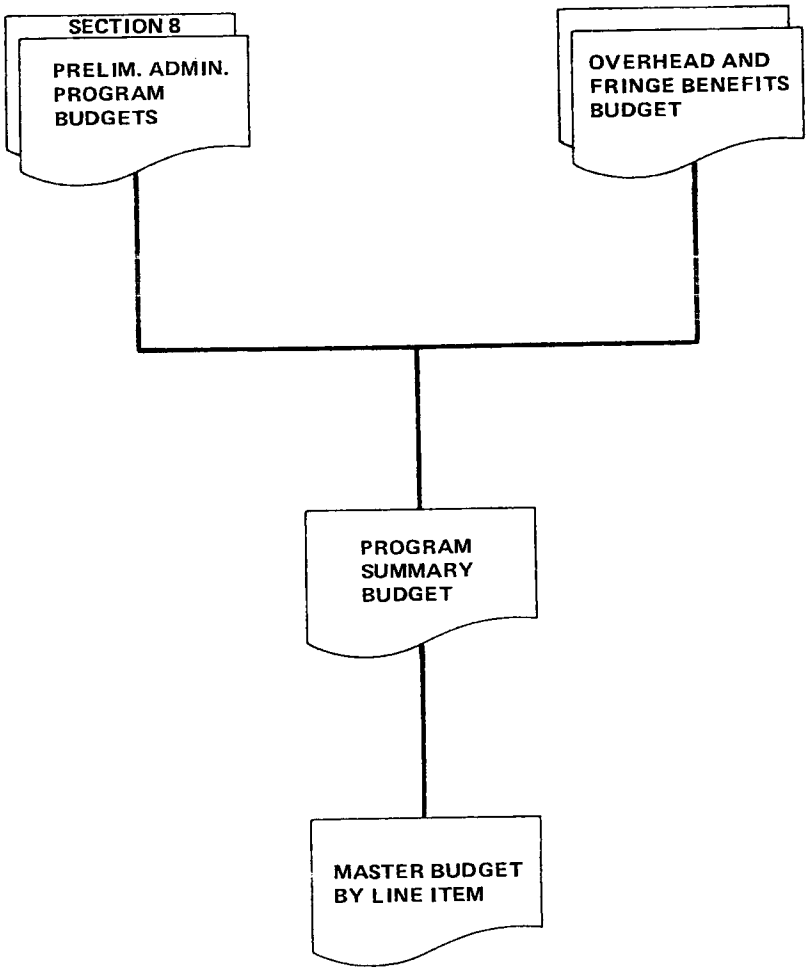


Figure 8-8: Budget Flow and Preparation

APPENDIX A

SAMPLE DESIGN, SAMPLE SIZE, AND ACCURACY

Prepared by Westat, Inc.

A.1 STATISTICAL RELIABILITY IN THE ANALYSIS OF SURVEY DATA FOR THE SECTION 8 PROGRAM EVALUATION

A.1.1 Introduction

The sample design for the Section 8 program evaluation was developed by the Urban Institute with consultation from John Dirkse of George Washington University, Statistics Department, subject to certain constraints imposed by HUD. A stratified sample design was used with size of PHA (measured in ACC number) and Metro and non-Metro as stratifying variables. However, the number of Public Housing Agencies (PHAs) selected from each strata was not proportional to the strata size due to certain HUD requirements. As a result, a wide variation in strata weights has occurred. The purpose of this appendix is to calculate the weights to be used for all three sectors, and, for Sector C, compute the impact of the design effect on the variance and standard deviations of survey estimates.[1] In Sector C, the net effects of the way in which the sample was designed are as follows:

(a) Weighted rather than unweighted analysis was necessary when PHAs or sites are the units of analysis.

(b) As a result of the unequal weights for various strata, Sector C has a substantial "design effect" of 1.7. In other words, although there were 30 PHAs in the Sector C sample, the statistical reliability of these 30 is only as good as a random sample of about 18 PHAs (i.e., 30 ÷ 1.7 = 18). Alternatively, we could say that the variance is 1.7 times larger than for a simple random sample of 30 PHAs.

(c) Because of the unequal weights in the first stage sample of PHAs, the number of recipients, nonrecipients, and landlords at each site was adjusted from site-to-site in order to produce an approximately self-weighted sample.

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[1]After discussing the sample design with the Urban Institute staff, Westat calculated the probabilities of selection and associated weights for Sector C (see Table A-1).

Table A-1

Sector C-PHA Weights

STRATA (PHA SIZE)	REGION	SELECTED SITE	METRO PROBABILITIES OF SELECTION	WEIGHT	NON-METRO PROBABILITIES OF SELECTION	
Over 999	6	1	.6667	1.50		
	6	2	.6667	1.50		
	6	3	.6667	1.50		
	6	4	.6667	1.50		
	9	5	.6667	1.50		
	10	6	.6667	1.50		
400-999	6	7	.1587	6.30*		
	9	8	.1905	5.25		
	9	9	.1905	5.25		
	9	10	.1905	5.25		
131-399	6	11	.0817	12.24*		
	6	12	.0817	12.24*		
	8	13	.0980	10.20		
	9	14	.0980	10.20		
	9	15		10.20		
	9	16			.2500	4.00
	10	17			.2500	4.00
71-130	7	18	.075	13.33		
	8	19	.059	17.00 sub.		
	9	20	.075	13.33		
	6	21			.0641	15.60*
	6	22			.0641	15.60*
	7	23			.0238	42.00
Under 71	6	24	.1515	6.00*		
	9	25	.1818	5.50		
	9	26	.1818	5.50		
	10	27	.1818	5.50		
	6	28			.0641	15.60*
	6	29			.0641	15.60*
	7	30			.0769	13.00

* In Region 6, 2 PHAs were deleted when the first stage sample was adjusted. Therefore the weights on remaining PHAs in Region 6 increased as shown since the probability of selection in Region 6 equals the initial selection probability times the probability of surviving the deletion of 2 sites which is 12/14 = .857. (A minor error of estimation caused the value .833 to be used rather than .857—a difference judged to be trivial.)

(See Table A-2.) The fact that recipients, nonrecipients, and landlords were "cluster sampled" produces a cluster effect factor. For recipients this factor has been found to vary from 1.7 to 4.3 depending on what variable we are considering. This means that, when the unit of analysis is the recipient, variance can be up to four times larger than for a simple random sample of the same size. Another way of stating this is that our sample of 428 recipients is only as accurate as an equivalent simple random sample of 107 recipients (i.e., 428/4 = 107). This is a rough conservative approximation based on Westat's calculations of cluster effects on variance for several socioeconomic characteristics of recipients. The $\sqrt{\text{cluster effect}}$ will be different for different characteristics depending on intraclass correlations (which vary from one characteristic to another) and depending on the extent to which stratification reduces variance. The $\sqrt{\text{cluster factor}}$ is the amount by which the standard deviation varies depending on the variable in question as shown below.

Variable	$\sqrt{\text{Cluster Effect}}$
Sex of Head	1.3
Number of Bedrooms	1.6
Household Size	1.8
Age of Head	2.0
Family Income	2.1

Therefore, we will use a relatively conservative assumption that, for recipients, confidence intervals are approximately 2.0 times what they would be for a simple random sample due to cluster sampling. For nonrecipients, participating landlords, and nonparticipating landlords, this factor is estimated as 1.3, 1.5, and 1.2, respectively, which is based on the assumption that the cluster effect varies linearly with cluster size and is otherwise similar for these surveys. A further word of caution is needed concerning the meager nonparticipating landlord sample; since only 10 out of the 30 sites had respondents, there is the distinct possibility of some bias in nonparticipating landlord results.

Table A-2

Sample Sizes for Recipients-Sector C

STRATA (PHA SIZE)	REGION	SELECTED SITE	(1) RECIPIENT SELECTION PROBABILITIES	(2) OCCUPIED UNITS	(3) PRELIMINARY RECIPIENT INTERVIEWS PER SITE	(4) ADJUSTED INTERVIEWS (6 MINIMUM)	(5) ADJUSTED WEIGHTS
Over 999	6	1	.0218	1071	23	-2 = 21	75.5
	6	2	.0218	1100	24	-2 = 22	75.2
	6	3	.0218	500	11	11	68.9
	6	4	.0218	597	13	-1 = 12	74.6
	9	5	.0218	900	20	-2 = 18	76.6
	10	6	.0218	728	16	-1 = 15	73.5
400-999	6	7	.0914	97	9	9	68.9
	9	8	.0762	100	8	8	68.9
	9	9	.0762	322	25	-2 = 23	74.9
	9	10	.0762	100	8	8	68.9
131-399	6	11	.1176	202	36	-3 = 33	75.2
	6	12	.1176	278	49	-3 = 46	73.4
	8	13	.1480	80	12	12	68.9
	9	14	.1480	138	20	-2 = 18	76.6
	9	15	.1480	68	10	10	68.9
	9	16	.0580	44	3	+3 = 6	34.4*
	10	17	.0580	42	2	+4 = 6	23.0*
71-130	7	18	.1934	118	23	-2 = 21	75.1
	8	19	.2466	78	19	-1 = 18	72.7
	9	20	.1934	100	19	-1 = 18	72.7
	6	21	.2263	7	2	+4 = 6	23.0*
	6	22	.2264	58	13	-1 = 12	74.6
	7	23	.6093	42	26	-2 = 24	71.8
Under 71	6	24	.0958	52	5	+1 = 6	57.4
	9	25	.0798	40	3	+3 = 6	34.4*
	9	26	.0798	50	4	+2 = 6	45.9
	10	27	.0798	59	5	+1 = 6	57.4
	6	28	.2263	8	2	+4 = 6	23.0*
	6	29	.2263	12	3	+3 = 6	34.4*
	7	30	.1886	49	9	9	68.9*
					422	422	

* These few sites have weights that differ substantially from the other weights (i.e., only 30 percent to 45 percent of maximum weight). But the net effect of sample estimates on reliability is small.

A.1.2 Statistical Accuracy

A.1.2.1 Accuracy of Proportions

The most common type of measure used in this analysis is percentages or proportions (e.g., proportion of PHAs with more than 5 years' experience in housing; proportion of recipients who are racial minorities, etc.). By combining sample sizes with design effects and cluster effects mentioned above, we can calculate statistical reliability expressed as confidence intervals on proportions in the Sector C analysis.

Table A-3

Confidence Interval on Proportions for Various Respondent Groups

Respondent Group	Sample Size, N	K*	90% conf. interval on a proportion		
			.10 or .90	.30 or .70	.50
PHAs	30	1.3	.12	.18	.20
Recipients	428	2.0	.05	.07	.08
Nonrecipients	125	1.3	.06	.09	.10
Participating Landlords	198	1.5	.05	.08	.09
Nonparticipating Landlords	25	1.2	.12	.18	.20

A.1.2.2 Confidence Intervals on Continuous Metric Variables

Confidence intervals on variables such as income of recipients, number of PHA staff, years of experience, etc., may be relatively smaller or larger than confidence intervals on proportions. In Westat's analysis of the Sector C data, the Statistical Program for the Social Sciences (SPSS) was used. This program, like most statistical packages, treats all sample sizes as though they were from a simple random sample. The standard deviations from unweighted runs using SPSS should be multiplied by the factor, K, in Table A-3 to estimate the actual standard deviations.

For computations using PHA as the unit of analysis, each PHA should be weighted by W_i (which is the reciprocal of the probability of selection in Table A-2, even though the standard deviations are estimated by scaling up standard deviations from unweighted SPSS runs by the factor, K, in Table A-3.

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*$K = \sqrt{\text{design effect}}$ for PHAs or $\sqrt{\text{cluster effect}}$ for other samples. K is the ratio of the true standard deviation to the standard deviation of a simple random sample, both of size, N.

For computations using the recipient, nonrecipient, or landlord as the unit of analysis, the sample is approximately self-weighted, so no weights are needed. However, standard deviations should be multiplied by factor K in Table A-1 to reflect the clustering effect. This is a gross estimate of the cluster effect as discussed earlier.

A.1.2.3 Accuracy of Subsample

Occasionally proportions are based on less than the entire respondent sample. For example, instead of talking about the proportion of all 30 PHAs that used HUD inspection standards, we might want to talk about the proportion of rural PHAs that used these standards. Whenever this occurs, the accuracy decreases (i.e., the confidence interval increases). Suppose eight of the 30 PHAs shown above were rural. Then the confidence interval on the proportion of rural PHAs that used HUD inspection standards would increase by a factor of $\sqrt{30/8} = 1.9$ (i.e., the error or uncertainty in the estimate almost doubles). In general, for a subset, n, of total interviews, N, the confidence interval increases by a factor of $\sqrt{N/n}$.

There are two situations in which a subsample is always involved:

- for questions only asked of a subset of all respondents (e.g., only Section 8 "movers" are asked about previous unit); and
- in cross-tabulations when row and column percentages are used.

In both of these instances, the sample size will be less than shown in Table A-3, and the confidence interval should then be multiplied by $\sqrt{N/n}$ as discussed above.

A.1.2.4 Significant Differences

Frequently we wish to compare differences between two variables and determine whether the observed difference is significant. Suppose that $\pm CI_1$ and $\pm CI_2$ are the 90-percent confidence intervals on X_1 and and X_2 whose difference is $D = X_1 - X_2$. Then the confidence interval for the difference, D, is approximately

$$CI_D = \sqrt{CI_1^2 + CI_2^2}.$$

If zero is within the interval, $D \pm CI_D$, the difference is not statistically significant.

For example, suppose our analysis of PHAs shows that X_1, say 70 percent, of all urban PHAs contract for the inspection of units, but that only X_2, say 50 percent, of all rural (non-Metro) PHAs contract for inspect of units. Is the difference D = .70 - .50 = .20 significant? To answer this question we need to calculate

$$CI_D = \sqrt{CI_1^2 + CI_2^2}.$$

Since N_1 = 8 rural PHAs and N_2 = 22 urban PHAs, we combine Table A-1 and paragraph 1.2.3 to compute:

$$CI_1 = .18\sqrt{\frac{30}{22}} = .210$$

$$CI_2 = .20\sqrt{\frac{30}{8}} = .387$$

Therefore,

$$CI_D = \sqrt{(.210)^2 + (.387)^2} = .44.$$

Then, the true D could be anywhere from D = .20 - .44 to .20 + .44--i.e., from -.24 to +.64. Since this interval includes zero, the difference is not significant.

A.2 SAMPLING WITHIN SITES

A.2.1 Introduction

In order to compensate for the wide variation in weights for the first stage sample of 30 PHAs, the number of recipients (as well as nonrecipients and landlords) has been altered so as to obtain a self-weighted sample of recipients, nonrecipients, and landlords. Such a sample is then representative of the entire Sector C portion of the Section 8 program without weighting. A minor adjustment is made to insure at least a minimum sample size at each site. Even after this adjustment the sample is still approximately self-weighted as shown in column (5) of Table A-2.

A.2.2 Methodology for Second Stage (Tenant) Sampling

The second stage sampling rate for recipients at each site is specified such that, when it is combined with that site's selection probabilities, a constant selection rate, f, for all Section 8 recipients will result.

f_i = ith site selection rate,

f_{ri} = recipient selection rate at site i,

$f_i f_{ri} = f = \frac{n}{N}$,

where

n = sector sample size = 14 x 30 sites = 420,

N = total occupied units in the sector which is estimated by

$$N \simeq \sum_{i=1}^{30} \frac{N_i}{P_i} \quad (= 28{,}950 \text{ for Sector C})$$

where

N_i = number of occupied units in ith sampled site,

P_i = probability of selection for ith site.

Therefore, the sampling fraction for recipients at the ith site is

$$f_i = \frac{f}{P_i} = fx \qquad \text{(weight for ith site).}$$

This would give an equal weight of 1/f (or 68.9 for Section C) if the number of recipient interviews are not "adjusted" to assure some minimum per site. Where adjustments are made, the adjusted weight is given by:

$$\frac{\text{Original \# Interviews per Site}^1}{\text{Adjusted \# Interviews per Site}^1} \times \frac{1}{f}$$

A.2.3 Features of Sample

A.2.3.1 Approximately Self-Weighted

The sample of recipients is approximately self-weighted; that is, it provides a nearly proportional representation of all Section 8 recipients in Sector C. At each site the number of nonrecipients, participating landlords, and nonparticipating landlords are each one-half the number of recipients. These samples are likewise approximately self-weighted.

A.2.3.2 Reflects Current Occupancy

Westat conducted a brief telephone canvas of the 30 PHAs in the Section C sample during the first week of October 1976. Section 8 occupancy figures as of that date were used in order to get an up-to-date representation of the program.

A.2.3.3 Insures a Minimum Representation at Each Site

The preliminary sample sizes were adjusted to insure a target of at least six recipients per site (and therefore at least three nonrecipients, three participating landlords, and three nonparticipating landlords). This gives a total of at least 15 tenant/landlord interviews per site, if our estimated completion rates are obtained. The "adjustments" to the site sample sizes still provide an approximately self-weighted sample of tenants and landlords.

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[1]Column (3) of Table A-2.

[1]Column (4) of Table A-2.

A.2.3.4 Sector C Sample

Table A-1 provides the PHA selection probabilities which resulted from the HUD/UI first-stage sample.

Table A-2 presents the latest Section 8 occupancy figures in column (2). Preliminary sample sizes, which would produce a full self-weighted sample of recipients, are given in column (3). Adjusted number of interviews are given in column (4) along with adjusted weights in column (5). If we had not made these "adjustments" [i.e., if we had stopped with column (3)], a uniform weight of 68.9 would have applied to all recipients in the sample. The adjustments were made by increasing the sample rate in nine sites so that a minimum of six interviews with recipients were obtained. Then corresponding decreases were spread over other sites which had large preliminary numbers of interviews.

The methodology for designing the self-weighted sample and adjustment effects is given in Section 2.2. The methods for actually drawing the samples was presented in Westat's Work Plan and will be detailed in Interviewer Training materials.

A.3. FIRST STAGE SAMPLE DESIGN EFFECT

Because the 30 PHAs were not selected with equal probability, there is a loss of statistical accuracy for any analysis in which the PHA is the unit of analysis. The design effect is 1.7, which is rather large. This means that our sample of 30 PHAs provides only the amount of accuracy as would be obtained from 18 PHAs from a simple random sample. In the body of this report we discuss the implication of this design effect on the confidence intervals used. The derivation of the design effect is given below.

The population can be divided into seven weighting classes with nearly equal weight within any one class. Suppose that

n_i = the same size in the ith class,

$\frac{N_i}{N}$ = proportion of the population in ith class,

$\bar{x} = \sum^{7} \frac{N_i}{N} \bar{x}_i$

A.3.1 For the Self-Weighting Sample

$$\frac{n_i}{n} = \frac{N_i^*}{N}$$

$$\sigma^2_{\bar{x}} = \sum \left(\frac{N_i}{N}\right)^2 \sigma^2_{\bar{x}_i}$$

$$= \sum \left(\frac{N_i}{N}\right) \frac{\sigma_i^2}{n_i} \qquad (\sigma_i^2 = \sigma^2_{x_i})$$

$$= \sum \left(\frac{N_i}{N}\right)^2 \frac{\sigma^2 N}{N_i n} \qquad (\text{if } \sigma_i^2 = \sigma^2 \text{ for each i})$$

$$= \frac{\sigma^2}{n} \sum \frac{N_i}{N} = \frac{\sigma^2}{n}$$

*Capital letters for population; lower case for sample.

A.3.2 For the Non-Self-Weighting Sample

For the non-self-weighting sample, suppose that the sampling rate in class 1 is:

$$\frac{n_1}{N_1} = r$$

The sampling rate in the other classes can be expressed in terms of r:

$$\frac{n_i}{N_i} = k_i r \qquad i = 2,3, \ldots 7, \quad \left(k_i = \frac{n_i}{N_i}\,\frac{N_1}{n_1},\ i \geq 2\right)$$

$$n_i = k_i r N_i \quad \text{where } k_1 = 1.$$

The total sample size and the rate r can be written as:

$$n = \sum_1^7 n_i = r \sum_1^7 k_i N_i$$

$$r = \frac{n}{\sum_1^7 k_i N_i} \cdot$$

Substituting for r in the expression for n_i gives:

$$n_i = \frac{k_i N_i}{\Sigma k_i N_i} n \cdot$$

The variance of the sample mean is then:

$$\sigma^2_{\bar{x}} = \sum \left(\frac{N_i}{N}\right)^2 \sigma^2_{\bar{x}_i}$$

$$= \sum \left(\frac{N_i}{N}\right)^2 \frac{\sigma_i^2}{n_i}$$

$$= \sigma^2 \sum \left(\frac{N_i}{N}\right)^2 \left(\frac{\Sigma k_i N_i}{k_i N_i}\right) \frac{1}{n} \text{(if } \sigma_i^2 = \sigma^2 \text{ for each i)} \cdot$$

The effect on the variance of the sample mean caused by departing from a self-weighting sample is measured by the ratio of the variances given in parts A and B.

$$\frac{\text{Var. B}}{\text{Var. A}} = \sum_{1}^{7} \left(\frac{N_i}{N}\right)^2 \frac{\sum_{1}^{7} k_i N_i}{k_i N_i}$$

$$= \sum_{1}^{7} k_i N_i \sum_{1}^{7} \left(\frac{N_i}{N}\right)^2 \frac{1}{k_i N_i}$$

Table A-4

Weighting Class Factors for the Sector C Sample of Sites

Class	Wt.	n_i	N_i	N_i/N	k_i	$k_i N_i$
1	1.5	6	9	.032	1.	9
2	6	8	48	.169	.250	12
3	11	5	55	.194	.136	2.48
4	15	6	90	.317	.100	9
5	4	2	8	.028	.375	3
6	16	2	32	.113	.094	3.008
7	42	1	42	.147	.036	1.512
Total		30	284	1.00		45

From Table A-4, the ratio of the variances can be evaluated as:

$$\frac{\text{Var. B}}{\text{Var. A}} = 45\ (.037) = 1.687 \cong 1.7.$$

A.4 SECOND-STAGE CLUSTER EFFECT

Even though the sample of recipients (and of nonrecipients and landlords) is self-weighted, there is still a loss of accuracy due to clustering. The average cluster design effect is about 3.0 based on a study of several different types of variables. Therefore our sample of 428 recipients is only as accurate as 1/3 x 428 - 143 recipients from a simple random sample. The effect of this on the analysis is given in the body of this report. The derivation of a formula for the cluster effect is given below.

The variance of a mean drawn from a stratified cluster sample can be estimated using the "ultimate cluster" approach described in general in Hansen, Hurwitz, and Madow, VI, p. 242.[1]

The formula is a modification of the expression for relvariance given in Hansen, Hurwitz, and Madow, VII, p. 181,[1] where:

N_{hi}, n_{hi} = total number of recipients and sample size of recipients at site i in stratum h;

M_h, m_h = total number of sites and number of sample sites in stratum h;

x_{hij} = the value of the observation on recipient j from site i in stratum h.

The ratio estimate is used to reduce the variance by the correlation between totals and the size of site.

$$r = \frac{x'}{y'} = \frac{\sum_{h}^{L} \frac{M_h}{m_h} \sum_{i}^{m_h} \frac{N_{hi}}{n_{hi}} \sum_{j} x_{hij}}{\sum_{h}^{L} \frac{M_h}{m_h} \sum_{i}^{m_h} N_{hi}}$$

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[1] Hansen, M.H., Hurwitz, W.N., and Madow, W.G., Sample Survey Methods and Theory, John Wiley and Sons, New York, 1953.

For example, the ratio r might be the average age of a recipient.

The var(r) is estimated by:

$$\frac{1}{Y'^2} \sum \frac{M_h^2}{m_h} \left(1 - \frac{m_h}{M_h}\right) S^2_{c'h} = \frac{1}{Y'^2} \sum \frac{M^2 h}{m_h} \left(1 - \frac{m_h}{M_h}\right)$$

$$(S^2_{c'hX} + r^2 S^2_{c'hY} - 2rs_{c'hXY})$$

where

$$S_{c'hXY} = \sum^{m_h} \frac{(X'_{hi} - X_h)(Y'_{hi} - \bar{Y}_h)}{m_h - 1},$$

$$S_{c'hX} = \sum_i \frac{(X'_{hi} - \bar{X}_h)^2}{m_h - 1} \quad \text{(and similarly for } S_{c'hY}\text{)}$$

$$X'_{hi} = \frac{N_{hi}}{n_{hi}} \sum X_{hij},$$

$$Y'_{hi} = N_{hi}.$$

The resulting standard error and DEFF for five variables are given below.

Standard Error / DEFF	Variable				
	Number in Household	Number of Bedrooms	Age	Sex	Income
Stan. Err. R.	.124	.066	1.96	.023	160
Stan. Err. SPSS	.069	.040	.96	.018	77
DEFF	3.22	2.69	4.17	1.65	4.3
$\sqrt{\text{DEFF}}$	1.8	1.6	2.0	1.3	2.1