U.S. Department of Housing and Urban Development
Office of Policy Development and Research

Final Report

A Standard Project - Based Accounting System for Public Housing Agencies

This report was produced by OKM Associates, Inc. for the United States Department of Housing and Urban Development. The views and conclusions contained herein are those of the authors and should not be interpreted as necessarily representing the official views or policies of the United States Government.

A Standard Project-Based Accounting System for Public Housing Agencies

Final Report

Prepared for

U S. Department of Housing and Urban Development
Office of Policy Development and Research

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EXECUTIVE SUMMARY

BACKGROUND TO THE STUDY

The primary function of Public Housing Agencies (PHAs) is to ensure that essential on-site operating services are provided at the public housing development level. These services include collection of rents, unit and site maintenance, lease and occupancy management, and management of basic services. In the complex regulatory and social environment of public housing, these basic services must be supported by adequate financial management, information systems, internal controls, and other systems and procedures.

The U.S. Department of Housing and Urban Development is interested in improving public housing management through the use of Project-Based Accounting (P-BA) systems. Through a competitive procurement, OKM Associates was retained in 1989 to study P-BA and to develop a P-BA Guidebook for PHAs. The scope of the research consisted of eight tasks, and included examination of the accounting systems at 15 medium and large PHAs, of which 9 were reported to have implemented P-BA systems.

DEFINITION OF A P-BA SYSTEM

A P-BA system is one which includes an actual set of accounts (i.e. HUD Chart of Accounts) for tracking expenses and income at the project level. For purposes of establishing P-BA cost centers, a project does not have to be based on a discrete HUD project number; it might also be an individual site location, subpart of a project, or administrative cost center. For each project, a P-BA system attempts to identify all costs that can be tracked to project activities. Not all costs can be tracked at the project level. Some non-project-specific and central office costs must be allocated to project levels.

As observed through the site visits, the existence of a project-level accounting system alone is not sufficient to have a fully operational P-BA system. The information must also be recognized and used in internal decision making. As a result, internal reporting and use of P-BA information are considered to be critical elements of a P-BA system.

RESEARCH FINDINGS

Of the PHAs studied, all but one is automated. Some PHAs adopted P-BA systems prior to automation, and have found the system to operate more efficiently since automating. Others adopted P-BA as part of automation under the Public Housing Urban Initiatives Program in the late seventies and early eighties. For these PHAs, P-BA appears to have been secondary to the goal of automation, but accounting software permitted project and cost center tracking with minimal additional data entry. No PHA was able to report cost information that separated P-BA implementation from automation.

Most P-BA systems use the HUD Chart of Accounts enhanced with subaccounts, but in general it was not found that PHAs with P-BA systems use subaccounts more than PHAs without P-BA. The use of subaccounts appeared to be more directly related to whether or not the PHA was automated. The selection of projects and cost centers for reporting varied substantially among PHAs. Proration by unit count (i.e.,unit months available) was the most common method of allocating costs which could not be directly assigned to the project level.

P-BA reporting generally was limited to senior managers and functional area managers. Other staff had access to the reports but were not the primary readers. The most extensive reporting was in the area of maintenance, ostensibly because of the ability to track labor and material costs through work order systems. Not all accounts were reported to site-level management staff; instead, reports contained only those accounts over which the staff had some control.

In general, PHAs with P-BA systems have greater organizational capacity, to identify the source of cost overruns and mismatches between available resources and true need at the site level. All P-BA systems were designed to permit tracking operating expenditures against budgets and tracing under-runs and over-runs to specific developments or clusters of developments. Maximum benefit appears to have been derived by PHAs which have multiple cost centers, expanded charts of accounts, links between capital and operating budgets, and operating standards monitored by internal audit and control staff. However, no PHA studied had all of these features.

The perceived utility of P-BA reporting varied depending upon the level of decentralization and how information was tailored to the needs of various management staff. Senior Managers appear to recognize the significant opportunities for increased accountability

and problem identification through the P-BA reporting capabilities. On the other hand, project-level management staff with responsibilities limited to lease enforcement and rent collection tended to downplay the utility of P-BA.

The adoption of P-BA systems did not appear to lead to an increase of site-based management responsibilities. While PHAs with P-BA systems were more likely to operate with decentralized management systems than the PHAs without P-BA included in this study, none of the PHAs visited significantly modified its organizational model directly as a result of implementing a P-BA system. Judging from the research, P-BA appears to be neutral in that it can be successfully implemented in support of any existing organizational structure, regardless of the level of decentralization.

While it did not directly cause a change in organizational models at any of the PHAs included in the study, P-BA appears to have led to analysis of operations and modification of procedures that might not have occurred if only consolidated information were available. It also required some minor changes in staff skills and responsibilities, which were generally addressed through retraining.

CONCLUSIONS AND RECOMMENDATIONS

There are certain accounts, allocation methods, and reports which can be specified as minimum requirements for a P-BA system. At a minimum, the following items are part of those accounts which should be carried at the project level:

Income

Dwelling Rental (account 3110)
Excess Utilities (3120)
Nondwelling Rental (3190)
Interest on General Fund Investments (3610)
Other Income (3690)[1]

[1] Other income can include income from laundry, vending machines, damage fees, and other similar income. Note the PHA if applicable, should include amounts attributable to accounts 7110 and 7530 under Operating Receipts. For further instructions, please see Guidebook.

Expenses

Administrative Salaries (4110)
Administrative Expenses Other Than Salaries (4130, 4140, 4150, 4170, 4171, and 4190)
Tenant Services (4210, 4220 and 4230)
Utilities (4310, 4320, 4330, 4340, 4350 and 4390)
Ordinary Maintenance and Operations (4410, 4420 and 4430)
Protective Services (4460, 4470 and 4480)
General Expenses (4510 and 4590)
Non-routine Maintenance (4610, 7520 and 7540)

The reporting capabilities should cover line items or accounts which relate most directly to operation of developments by field personnel or the activities of the agency's departments. The basic report should consist of all line items up to line 620 of the HUD Form 52599. These minimum requirements are discussed in greater detail in the P-BA Guidebook, and most of the accounts are reflected in the above.

P-BA systems can help to increase the accountability of staff for operations, but full benefit can be derived only when operations, accounting, and internal audit and control are separate and distinct functions to provide appropriate checks and balances. The research team reiterates that accountability depends upon several things: clear lines of communication, fully defined policies, specific objectives assigned to individual staff and departments, operating procedures, documentation and reasonably defined training programs.

P-BA is most effective when there is a decentralized budgeting component to the system, and in turn, project-based budgeting is only sustainable and effective if there is an accounting and reporting system in place to support it.

While automation is not required, P-BA systems seem to be greatly enhanced as a result of automation. The use of automated data processing applications can dramatically increase the level of detail and the timeliness of information generated through P-BA without increased staff resources being needed. Most of the major providers of data processing software offer the capability for PHAs to develop elaborate subaccounts utilizing the existing HUD chart of accounts codes and can use the financial modules to develop cost centers at most every level. Some applications use "explosion codes" which offer the capability to

undertake elaborate and detailed cost allocation methods It appears that PHAs who are automating can at the same time take steps to utilize the full capabilities of their automated systems by developing a P-BA system.

Recommendations

The recommendations that are listed below are based primarily on the judgment and observations of the research team.

- The framework for formulating policy and setting objectives must be built on basic management systems and operating procedures. Unless basic systems and procedures are in place, large housing agencies cannot expect to be able to expand operations. P-BA provides important data which can be used to help set objectives and to monitor agency performance in meeting the objectives.

- PHAs are often being encouraged to develop internal audit programs by IPAs (through audit recommendations) and HUD. P-BA can assist in the development of internal audit systems and can improve the ability of senior PHA management to examine the housing programs they administer. HUD should consider recommending P-BA to housing agencies that are taking steps to develop such programs

- In order to assist in the use of P-BA and to better ensure that it is used effectively by PHAs, it is recommended that HUD staff be trained and fully informed concerning P-BA. In conducting reviews of PHA plans and requests to automate, HUD staff need to be sufficiently informed so as to ascertain whether the PHAs plan to pursue P-BA along with automation. At a minimum, the HUD Field staff could be informed that they can provide the PHA with copies of the P-BA Guidebook for their review and consideration before a PHA implements a new automated system or upgrades an existing system.

- It should be noted that P-BA data can be used by HUD Field Office staff when conducting field reviews of PHAs such as in cases where the protocol contained in HUD Handbook 7460.7 REV 1 is used.

- There is a need to assess how HUD and PHAs can use P-BA, along with the products and information generated under this project. P-BA is a way to assist HUD in assessing the resources needed to sustain and protect public housing.

- The recently authorized Commission on Severely Distressed Public Housing should benefit from the review and analysis of project-level operating and financial information. The P-BA Guidebook should be of assistance in the Commission's effort to assess distressed public housing developments and to develop action plans for eliminating unfit living conditions.

- The use of P-BA generated data may be the most effective way to measure the costs of on-site operating services and changes in expenses in the delivery of services. P-BA could have some use in reviewing PHA "appeals" of PFS Allowable Expense Levels and in the development of Project Financial Forecasts required by HUD to be submitted with CIAP operations.

- Automation or a system upgrade in tandem with implementation of P-BA should be strongly encouraged by HUD. As noted above, implementing P-BA, along with automation or modifications to existing automated systems, enables PHAs to take full advantage of data processing systems capabilities.

- PHAs should be reminded that the development and installation expenses of P-BA are an eligible CIAP Management Improvement Program Expense. It is recommended that the HUD Notice for the CIAP funding round anticipated to occur next year specifically reference Project-Based Accounting Systems and the desirability of PHAs in pursuing the development and installation of these systems.

- A high level of effort on the part of HUD staff has been directed toward establishing Allowable Expense Levels (AELs), under the Performance Funding System (PFS) for Resident Management Corporations (RMCs). Project-based accounting systems complement and support this effort. P-BA should be promoted by HUD as part of the effort to establish public housing resident-based management.

- It is important that HUD not limit its support of P-BA to promote only the minimum threshold requirements as defined in the Guidebook, but rather to support implementing enhanced P-BA and other significant internal management systems.

- HUD should take particular steps to promote the development and implementation of P-BA systems at large distressed PHAs, but also generally encourage the implementation of P-BA at all PHAs.

- The Memorandum of Agreement (MOA) process is one which can be used by HUD to provide specific direction to troubled PHAs. These PHAs may benefit from the implementation of P-BA and other critical management systems. P-BA systems could be of importance to HUD and PHAs attempting to develop improvement programs to address areas of concerns pertaining to MOAs. The Guidebook should be provided to troubled PHAs.

- It is recommended that PHAs be encouraged to undertake a more formalized and structured process to develop and implement a P-BA system, rather than allow haphazard development of the system. A full range of P-BA features are covered in the Guidebook in conjunction with defined minimum requirements. HUD staff should be informed of this important component of the Guidebook. HUD should inform PHAs of the availability and usefulness of the P-BA Guidebook.

CHAPTER ONE - BACKGROUND TO THE STUDY

INTRODUCTION

The U.S. Department of Housing and Urban Development (HUD) is interested in improving public housing management through the use of Project-Based Accounting (P-BA) systems. As delineated through the process below, OKM Associates, Inc. was awarded the contract for the assignment of studying P-BA and developing a P-BA Guidebook and a Final Report. The Guidebook is a separate document which addresses the minimum requirements for developing a P-BA system and the operation of such a system. This Final Report is a synopsis of the process undertaken throughout the contract to achieve the stated goals This report discusses the background of the study and the research process, details the findings of the data collection, and offers recommendations. The recommendations are the opinions of OKM Associates and do not necessarily reflect those of the Department of Housing and Urban Development

BACKGROUND TO THE REQUEST FOR PROPOSALS AND CONTRACT

Consolidated accounting for PHAs was adopted in the late 1950's to allow for financially stronger projects to carry those projects that were less well off. The combined resources helped mitigate the need for operating subsidies. Since that time, all PHAs have been required to report in the consolidated format.

Consolidated accounting, as it now stands, has served the government well as a reporting format. PHAs, as a government entity, have met the reporting criteria and have followed the system as delineated in their Annual Contributions Contract However, HUD is interested in increasing accountability and expanding management decisions through the use of a wider information network. Project-Based Accounting goes beyond the consolidated system and can generate information on the project or cost center level. HUD's interest is in improving public housing management by encouraging PHAs to establish P-BA systems.

Two programs associated with Project-Based Budgeting and accounting were available to PHA's in the past fifteen years. The Target Projects Program, a management improvement demonstration, was undertaken in the mid to late 1970's. The Target Projects

program did support, to some extent, the development of "Project-Based Budgeting". A more in-depth program came about a few years later. In the late seventies and early eighties approximately 35 PHAs received grants to help start up Project-Based Budgeting under the Public Housing Urban Initiatives Program. In 1983, as part of the Program, a study on Project-Based Budgeting was conducted using data from the grantee PHAs. A HUD guidebook, Project-Based Budgeting/Management and Supporting ADP Systems, was produced. The HUD guidebook was directed to the budgeting process and discusses management as an important, though secondary use of the system. The HUD guidebook addresses the issues in a general way, without determining different situational outcomes for authorities based on size, organization, geographic area, type of operation, etc. A symposium on Project-Based Accounting and Budgeting was conducted in 1984 to educate HUD staff and share experiences and questions that PHAs had on the concept and issues of P-BB and P-BA.

The Request for Proposals to Develop a Standard Project-Based Accounting System for Public Housing Agencies was issued in the late fall of 1988 by the U.S. Department of Housing and Urban Development, the Division of Housing and Community Studies. The contract to OKM was awarded in July, 1989. The contract spoke to the issues of consolidated budgeting and accounting systems as the required method of financial reporting, versus exploring project-based accounting as a management tool.

PROJECT OBJECTIVES

Five objectives were to be addressed in meeting the contract requirements:

a. Develop minimum standards and procedures for a Project-Based Accounting (P-BA) system for the Low-Rent Public Housing Program;

b. Develop cost estimates for converting from a consolidated to a P-BA system;

c. Develop cost estimates for the ongoing operation of a P-BA system relative to a consolidated accounting system;

d. Compare the operations of P-BA and non P-BA systems; and

e. Develop guidance materials for use by PHAs and the Department in evaluating proposals to install a P-BA system.

A total of eight contract tasks, including preparing the Guidebook and Final Report, were delineated to accomplish the contract objectives. The tasks are as follows:

Task 1 - Orientation
Task 2 - Management and Work Plan
Task 3 - Research Design
Task 4 - Data Collection and Analysis Plan
Task 5 - Reconnaissance and Site Confirmation
Task 6 - Data Collection and Analysis
Task 7 - Project-Based Accounting Guidebook
Task 8 - Final Report

Two major final deliverables are included in the contract scope of work: a P-BA Guidebook, and this Final Report. The two are very different in intent and scope and are addressed accordingly in the contract. The P-BA Guidebook is intended to be used as a guide nationally for PHAs seeking to learn about P-BA. The Final Report is a companion to the Guidebook in that it legitimizes the research in the Guidebook and enables the OKM team to offer unfettered recommendations not found in the Guidebook.

The Contract stated fourteen (14) research questions that form the basis for the research design and drive the collection of information needed to address the five contract objectives. The original research questions are:

1) What specific benefits are associated with Project-Based Accounting, as opposed to Consolidated Accounting?

2) Since P-BA is not required of PHAs, why did certain PHAs convert from consolidated to P-BA?

3) What significant differences exist among installed Project-Based Accounting systems, and how do these differences affect the operation of the Project-Based Accounting system?

4) What differences exist between the operations of consolidated and P-BA systems, and what effect do these differences have on PHA administration?

5) What cost elements must be accounted for at the project level to provide a true picture of the cost of operating a project?

6) How should costs be allocated when they cannot be broken down to the project level?

7) How should central office costs be allocated in a Project-Based Accounting system?

8) How should "project level" costs for scattered-site units be accounted for in a Project-Based Accounting system?

9) How should a Project-Based Accounting system account for "project level" costs for developments which contain more than one housing type, such as high-rise elderly and low-rise family, at the same site?

10) What project-level reports should the P-BA system be capable of producing?

11) What PHA-level reports should the P-BA system be capable of producing?

12) What is the estimated cost of converting from a consolidated accounting system to a P-BA system?

13) What is the estimated cost of administering a Project-Based Accounting system in contrast with a Consolidated Accounting system?

14) What procedures and criteria should be used in evaluating proposals to install a Project-Based Accounting system?

As will be discussed in Chapter Two, OKM expanded the research questions to provide for a wider exploration of the issues. The answers to these questions are reflected in the P-BA Guidebook and the Final Report.

The Contract specified that fifteen (15) sites were to be studied to determine the information needed to conduct a thorough analysis of the fourteen (14) questions. Chapter Two discusses the evolution of the final research questions. The site breakdown consisted of nine PHAs with P-BA and six PHAs without P-BA.

THE OKM PROPOSAL

The OKM team consisted of Jeffrey Lines as Project Director, Barbara Shapiro, Assistant Project Director, Phillip Mayfield, Monte Franke, Andrew Daniels, Gail Kendall, and Judith Katz. Two firms participated in the Contract as subcontractors: W.A Jackson CPA, a minority owned accounting firm, and Ernst and Young OKM has developed and implemented a project-based accounting and budgeting system for all of the properties managed by the firm. Jeffrey Lines was involved in the development and implementation of project-based accounting and budget systems at the Cambridge Housing Authority, The Executive Office of Communities and Development (Massachusetts) and as the Assistant Administrator for Fiscal Affairs (Chief Financial Officer) at the Boston Housing Authority during the implementation of P-BA.

OKM's approach to the contract stems from a thorough understanding of PHA operations and management systems. All PHAs must take the steps necessary to ensure that essential on-site operating services are provided at the public housing development level. The delivery of essential management and maintenance services which result in the collection of rents, the maintenance of public housing, and management of basic services must be supported by adequate financial management, information systems, internal control and other basic systems and procedures. It is these basic systems requirements which have become more complex but critical to a PHA's operations as the requirements of PHAs have increased.

Given the limited resources available to public housing, OKM stresses that it is important that management systems be both effective and efficient. Without an effective management information system which covers such areas as budgeting, expenditures, tenant selection, rent collection, procurement and contracting, maintenance, and inventory, it is extremely difficult to identify problems in a PHA's operations. Automated information systems also are needed to support policy formulation and the setting of objectives. PHAs cannot hold staff accountable and provide information to support their own activities if they

cannot produce current and reliable information in a format that lends itself to interpretation. The difficulty in obtaining information has plagued many PHAs and has led a number of housing agencies to adopt the use of automated data processing applications for public housing.

The Contract was awarded with a period of performance of one year. Figure 1-1 details the outline of tasks contained in the contract. A schedule of the timeframe for completion of each task was prepared by the OKM team. The due dates and milestones are displayed in Figure 1-2. Although internal timeframes were changed as the project progressed, the contract ending date remained in the same month. Areas that warranted a change in schedule from the initial work plan included Data Collection and the P-BA Guidebook.

ORGANIZATION OF THIS REPORT

The remainder of this report is organized into 3 chapters. The next chapter, Chapter Two, consists of brief explanations of the research activities undertaken by the OKM team. All of the eight tasks are discussed as they were modified by HUD and OKM in the Research Design, and descriptive narrative is applied to the individual issues associated with the process. Chapter Three contains a detailed discussion of the findings as they pertain to the 14 research questions. Chapter Four presents OKM's recommendations for promoting the use of Project-Based Accounting in the management of public housing.

FIGURE 1-1 OUTLINE OF TASKS

Outline of Tasks:

Task One - Orientation and Kick-off Meeting

Task Two - Design and Submit a Management and Work Plan

Task Three - Research Design

Subtask 3.1 - Prepare a Draft Outline of the Research Process

Subtask 3.2 - Prepare an Outline of the Project-Based Accounting Guidebook

Subtask 3.3 - Identify Initial List of Sites to be Visited

Subtask 3.4 - Prepare Draft Interview Guides

Subtask 3.5 - Prepare A Draft List of Documents to be Collected

Task Four - Data Collection and Analysis Plan

Subtask 4.1 - Analysis Plan and Data Requirements

Subtask 4.2 - Presentation of Draft Data Collection Instruments for Review, Pre-Test and Finalization

Subtask 4.3 - Draft Fieldwork Plan

Task Five - Reconnaissance and Site Confirmation

Task Six - Data Collection and Analysis

Subtask 6.1 - Train Data Collectors

Subtask 6.2 - Site Visits

Subtask 6.3 - Data Analysis

Task Seven - Project-Based Accounting Guidebook

Subtask 7.1 - Compile Data Needed to Prepare Guidebook

Subtask 7.2 - Develop a Model Solicitation Package for Procuring Technical Assistance in Installing a P-BA System

Subtask 7.3 - Develop Step-by-Step Discussion Session Describing Conversion to P-BA

Subtask 7.4 - Develop a Description of the Administrative Changes Which May Result from a Conversion to P-BA

Subtask 7.5 - Describe the Activities a PHA Will be Required to Perform on a Regular Basis to Maintain an Installed P-BA System

Subtask 7.6 - Complete Draft of Project-Based Accounting Guidebook

Subtask 7.7 - Revise Final Draft and Submit to GTR

Task 8 - Final Report

Subtask 8.1 - Prepare Draft Final Report

Subtask 8.2 - Submit Final Report

FIGURE 1-2
PROJECT-BASED ACCOUNTING SCHEDULE

TASKS	TITLE	PERIOD	WEEK	DUE DATE	COMMENTS
ONE	ORIENTATION	WEEKS 1-2		7/18/89	COMPLETE
TWO	WORK PLAN	WEEKS 2-8	WEEK 5	8/9/89	DRAFT
			WEEK 8	8/30/89	FINAL
THREE	RESEARCH DESIGN	WEEKS 5-15	WEEK 10	9/13/89	DRAFT
			WEEK 15	10/18/89	FINAL
FOUR	DATA COLLECTION PLAN	WEEKS 7-15	WEEK 10	9/13/89	DRAFT
			WEEK 15	10/18/89	FINAL
FIVE	RECONNAISSANCE	WEEKS 17-26	WEEK 17	11/1/89	START
			WEEK 26	1/3/90	FINISH
SIX	DATA COLLECTION	WEEKS 19-35	WEEK 19	11/15/89	START
			WEEK 35	3/7/90	FINISH
SEVEN	P-BA GUIDEBOOK	WEEKS 28-51	WEEK 38	3/28/90	1ST DRAFT
			WEEK 47	6/5/90	2ND DRAFT
			WEEK 54	7/20/90	FINAL
EIGHT	FINAL REPORT	WEEKS 28-52	WEEK 44	5/9/90	DRAFT
			WEEK 52	7/5/90	FINAL

CHAPTER TWO - RESEARCH ACTIVITIES

INTRODUCTION

This chapter describes the process the OKM team followed in addressing the eight contract tasks. The first six tasks entail the research and data collection activities that yielded the necessary information to prepare the P-BA Guidebook and Final Report. It is important to note that the work plan developed for the contract was adhered to essentially in its entirety throughout the contract period.

TASK 1 - ORIENTATION AND KICK-OFF

The orientation meeting took place on July 18, 1989 with selected OKM and HUD staff. Those in attendance were: Jeffrey Lines, Project Director; William Jackson, of W.A. Jackson CPA; John B. Carson, the Government Technical Representative; Nancy Mehennick, Government Technical Monitor; John Comerford and Peggy Magnum of the Financial Management and Occupancy Division. Handouts and informational items were distributed by the OKM staff. The objectives of the work plan were defined, and timeframes and due dates were discussed. The project time schedule was finalized, as well as stated agendas for the management and work plan.

The distribution of PHAs was proposed to be changed from the original contract. The Contract called for three different levels of PHA sizes: small, medium and large. It was determined that the PHA small category was to be discarded due to the limited number of PHAs in that category which have P-BA systems in place. The final distribution was five medium size PHAs (500-1,249 conventional federal units) consisting of three P-BA and two non-P-BA, and ten large size PHAs (1,250 and more, conventional federal units), consisting of six P-BA and four non-P-BA.

TASK 2 - MANAGEMENT AND WORK PLAN

The management and work plan consisted of two sections, narrative and attachments. The narrative is a task-by-task analysis of the work undertaken throughout the course of the

Contract to meet the objectives of the contract and the study. The management and work plan also refers to HUD Form 441.1, Project Management System Baseline Plan. This document serves as the indicator of the dollar value of each task and monthly costs. The monthly progress reports, Form 661.1, is based on the data generated from the Project Management System Baseline Plan.

A draft work plan was submitted first for HUD review. HUD comments and changes were incorporated into the final plan. The work plan served as the blueprint for all activities carried out in conjunction with the contract. The tasks and subtasks included in the work plan were the same as listed in Chapter One and the Contract, although the sequence of tasking for Tasks 3 and 4 was revamped to allow for the level of distinction necessary between the Research Plan (Task 3) and the Data Collection and Analysis Plan (Task 4). The revised tasking is as follows:

Tasks 1,2,5,6,7,8 - Remain the same as listed in Chapter One

Task Three - Research Design

Subtask 3.1 - Prepare a Draft Outline of the Research Process
Subtask 3.2 - Prepare an Outline of the Project-Based Accounting Guidebook
Subtask 3.3 - Identify Initial List of Sites to be Visited

Task Four - Data Collection and Analysis Plan

Subtask 4.1 - Prepare Draft Interview Guides
Subtask 4.2 - Prepare A Draft List of Documents to be Collected
Subtask 4.3 - Analysis Plan and Data Requirements
Subtask 4.4 - Presentation of Draft Data Collection Instruments for Review, Pre-Test and Finalization
Subtask 4.5 - Draft Fieldwork Plan

The work plan also discussed the attempts that the OKM team would make in order to include PHAs in Region I, so as to decrease travel costs. It is important to note that this activity was not at the expense of adequate representation, as the selected P-BA PHAs are distributed throughout various states and regions. The management and work plan also

described the method of delivery for the final items, such as format and number of copies. The work plan has been an important guide in the preparation of the final deliverables.

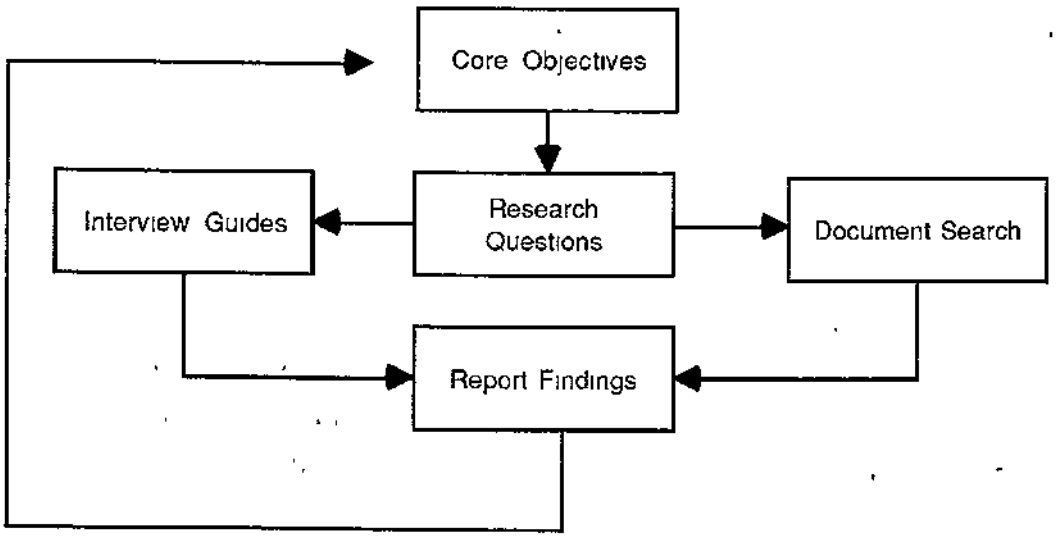
The following charts and forms were included in the work plan:

1. Person Loading Chart
2. Allocation of Expenses by Month
3. Travel Assumptions by Task
4. Time Schedule of Tasks Chart
5. Narrative Schedule of Tasks - Spreadsheet
6. HUD Form 441.1 - Project Management Baseline Plan
7. Summary and Description of Personnel Changes

TASK 3 - RESEARCH DESIGN

The research design consisted of three areas: an outline of the research process, description of the P-BA Guidebook and annotated outline, and site selection criteria.

The research process is guided by the 14 research questions. A simple flowchart is shown below to help visualize the interaction:



The outline of the research process described the steps necessary to enable the OKM project team to gather the information needed to complete the study. Without an iterative format on which to focus the team's activities, the concept of a usable research design would not be possible. The following steps were undertaken for the research process:

1. Review contract and research criteria
2. Prepare Guidebook outline
3. Proceed with site identification
4. Develop interview process
5. Develop analysis and data strategy
6. Data collection - background
7. Prepare fieldwork plan
8. Conduct reconnaissance - site visits
9. Conduct data collection - site visits

The Guidebook outline underwent various iterations before the final chapter configuration was determined. The research design originally listed twelve chapters for the Guidebook and four appendices. The final P-BA Guidebook consolidated the twelve chapters into five chapters and four appendices. The basic information to be included was still reflected in the final version. A full description of the chapter history and a brief outline of the contents can be found under Task 7 of this chapter.

Chapter One of this Final Report briefly described the outreach for suitable P-BA sites. OKM staff utilized the following protocol in contacting potential sites.

1. Staff contacted the PHA, and spoke either to the Executive Director or the Chief Financial Officer. They explained OKM's role, the components of the HUD-funded project, what we were trying to determine at that time, and the process of developing a preliminary pool of eligible sites. The initial question asked was "Does your authority have a project-based accounting system in place" ? If they responded positively, an indication of the degree of the use of the system was determined through additional discussion with the PHA.

2. All PHAs that indicated they had P-BA were sent a letter explaining what we were trying to accomplish, the objectives of the project, and the desire to follow up with threshold questions.

3. The PHA's were contacted as to their availability in having the Chief Financial Officer respond to the threshold questions. The questions took approximately 20 minutes to answer.

4. Non P-BA PHAs received a letter explaining the project and our intentions and requested their consideration in participating in the project.

Following are the questions OKM staff asked over the telephone to determine if the PHA's P-BA system was sufficient to pass the threshold requirements needed to move to reconnaissance:

1. I would like to get an overall picture of the PHA's housing stock.

    a. How many units does the PHA own and operate?
        i. How many are conventional federal public housing?
        ii. How many are subsidized by an entity other than HUD? (for example state-subsidized public housing)
    b. How many projects does the PHA have, and what is the size range of these projects (number of units)?
    c. How many of the projects are family, how many are elderly?
    d. What kinds of structures are the projects? (for example - high rise, low-rise, row-house, scattered-site)
    e. In general, what types of modernization activities are currently occurring or planned?

2. Please describe your occupancy situation.

    a. What is the PHA's overall occupancy rate?
    b. If the occupancy rate is less than 97%, ask them if they have a HUD-approved Comprehensive Occupancy Plan. (If so, ask them to very briefly describe the major points of the plan).

c. Do specific projects have high vacancy rates? (If so, and the PHA's overall occupancy rate is 97% or lower, ask them if HUD required them to have a project-specific Comprehensive Occupancy Plan).

3. I would like to get an overall picture of the PHA's organizational structure.

   a. How are projects grouped? For example, are all of the elderly projects in one group? Are projects grouped by geographic area?
   b. What is the management structure for the groups? Does the PHA have regional offices, and what staff are in those offices?
   c. Are Project Managers assigned to one project or do some have more than one project? Please describe in general how assignments are made to Project Managers.

4. Briefly describe your P-BA system.

Staff supplied the following definition for P-BA. "A P-BA agency is one which includes an actual set of accounts for tracking project-level expenses and income. This is what we define to be a P-BA operating system. Please describe your system as it relates to this definition."

   a. When was it started?
   b. Why was it started?
   c. (If a. and b. do not get this answer - ask How was it started? (for example, as a pilot program, with a special grant from HUD or the state, etc.)
   d. Is it automated or manual?
   e. Does the PHA have project-based budgeting?
   f. Does the PHA have department-based accounting? If yes, does the PHA have department-based budgeting?

5. Are all projects included in the P-BA system? If not, how many are and how many are not, and why?

6. What line items are accounted for under P-BA?
   (As needed, discuss which items are controllable at the project level vs. those not).

7. What kind of reports are generated by the P-BA system, and how often are they sent out.

8. Who receives the P-BA reports and what do they do with them?

As noted above, the research questions are the driving force behind the research design and the data collection efforts. The original fourteen questions, as stated in Chapter One, were expanded by OKM to enable a broader examination of P-BA at the PHAs. In the first draft of the Data Collection and Analysis Plan, the OKM team expanded the original fourteen questions to twenty-six. HUD commented on the appropriateness of enlarging the original number of research questions, since the contract was predicated on only fourteen. An agreement was reached to reduce the number of research questions back to fourteen, but to add additional subsections. Following are the additional areas of inquiry incorporated into the original corresponding questions:

2a. What are the operational characteristics and conditions which are best suited to the installation and operation of P-BA systems?

4a. How are responsibilities for specific line items in a Project-Based Accounting system and the related budget management, assigned among staff members of the PHA?

b. How have PHAs specifically altered their accounting systems to accommodate P-BA?

c. What other program and organizational considerations does the PHA make in operating its accounting system and in overall budget management?

d. Is P-BA enhanced by, or does it require automation to be an effective accounting system?

e. How is the accuracy of financial and accounting information confirmed at the project level?

5a. How is operating data used to make decisions on capital improvements? Should there be a link between capital planning and operations?

b. For some PHAs, in particular large PHAs, programs in addition to the federally subsidized low income public housing program may be providing resources to the PHA for the provision of additional services to residents. How should the costs of these programs be accommodated in a P-BA system?

10a. Who uses reports generated by the P-BA system -- at a project, regional, central, and any other level -- and what do they do with the information?

12a. What are the marginal (or "incremental") costs of upgrading a consolidated system to a P-BA system? How do existing manual vs. automated systems affect the conversion or upgrade?

b. What type of training is required in the use of P-BA, and for whom - at all levels, including project staff, regional staff, central fiscal staff, other staff in the central office, and tenants involved in property management?

TASK 4 - DATA COLLECTION AND ANALYSIS PLAN

The data collection consisted of two types of information: documents collected from the PHAs, and structured oral interviews with PHA staff All sites received a copy of the document requests during the reconnaissance phase. Two document collection lists were generated, one for P-BA sites and one for non P-BA sites. The document collection list was purposely developed to be all-inclusive, with the idea that the more comprehensive the list, the better a chance of receiving a significant portion of the needed documents. The following is the checklist for P-BA agencies.

Fiscal Management

Organization Chart (Table of Organization)
Comprehensive Occupancy Plans
Relevant historical data
IPA audit report
Management & other Audit reports - latest
Copy of central warehouse allocation plan, forms, etc. - stock requisition or equivalent

P-BA

Study(s) on P-BA system done for PHA

Training Manual & description of training procedures

Operations Manuals on P-BA

Internal cover memos on P-BA problems

Schedule of Personnel by Titles who are involved in generating P-BA information

Copy of each type of P-BA report - sample from one development

Copy of users manual or report description as they relate to P-BA

Copy of time sheet (filled out) & payroll distribution

Copy of voucher cover sheet, or description of expense source documentation

Accounting

Chart of Accounts

Explanation of expense account code system - what PHA does that is different than the HUD chart of accounts

Copy of expense distribution of journal voucher

Narrative on General Ledger - how general ledger ties into budget and planning process

Cost Allocation Plan

Financial Statements (Conventional Public Housing Program)

Fixed asset forms

Copy of reports,& system flow chart (IPA-files if possible) as they relate to P-BA system

Budget

Budget (Conventional Public Housing Program)

Project Budgets - a sample

Budget narrative and flowchart of system

MIS - P-BA System

Narrative on MIS

Schedule of Hardware Cost, & software cost, with source of funding

Bid or rough cost of replacement system (PHA estimate)

Schedule of annual Maintenance cost, and administrative cost of P-BA system - copy of maintenance contract

RFP for Soliciting P-BA Bids

Maintenance and Operations

Narrative or flow chart on maintenance control documents
Copy of each maintenance form used
Copy of tenants charge form

The document checklist for non P-BA sites was essentially the same, items pertaining to P-BA were deleted. Task 6 of this chapter details the success in obtaining the documents for both P-BA and non-P-BA sites.

Each site visit would include at least two OKM team members, one of which was a Senior Team member. The structured interview guides were prepared for different PHA staff. The questions were geared towards each employee position and their contact with the P-BA system. Many of the questions were the same so as to gauge responses to the issue from varied perspectives. It was understood that not all agencies would correspond to the breakout of staff. The staff identified for interviews were as follows:

Local HUD Staff (Management Representative or other appropriate staff member)
Independent Auditor
Chief Financial Officer (and/or Fee Accountant)
Executive Director (and if appropriate) designee
Budget Staff
Director of Accounting
Accounting Staff (Group Interviews where appropriate)
On-Site Project Staff
Senior Project Management Staff
Senior Central Office Staff

Senior Central Office Staff were to be interviewed if the PHA had budgeting at the cost center level or the staff member was working closely with the P-BA system.

A pre-test was conducted at a public housing authority for the interview guides and document collection. Four OKM staff conducted the interviews, pairing up for each interview to be able to fully observe the responses and potential problems with the guides. All of the individual interview guides were pre-tested, with the exception of the HUD Management Staff and Independent Public Accountant guides.

Following the pre-test, the interview guides were revised accordingly, and approved by the GTR. The pre-test also enabled the OKM team to determine the length of the interview guides and budget between 1-2 hours for each interview depending on the staff position. The pre-test allowed the OKM staff to get a feel for the PHA staff positions that would be able to answer the various lines of questioning. The pre-test also helped train junior level staff on the methodology of gathering PHA site information. Language that may have appeared awkward was changed.

As discussed in the next section, Reconnaissance and Site Confirmation, the OKM team based their training on the revised interview guides. Below is one example of new questions added to an interview guide following the pre-test.

Project Management Staff (both Senior and below) Interview Guides -

- Are reports prepared in a timely manner?
- What specific line items in the reports are the most important and their ranking?
- Do project managers have any involvement in the preparation of the development budget?
- What is the relationship between capital budgeting and modernization planning and the P-BA system?
- What are the incentives, or disincentives for project management staff to keep within their budget?
- Are there any important questions we missed, any additional information you want to add? (This last question was added to all of the interview guides)

A Field Data Collection Guide was prepared for each site to be used by the interview team. All of the information gathered, both through interviews and document collection was to be placed in a large spiral binder for each site, by category. An outline for filing the documents and interview guides was prepared and was adhered to for each site. The purpose of the data collection guide was to gather information about the selected PHAs and to answer the research questions. A complete sample of the data collection guide was sent to HUD for their comments.

The information contained or filed in the Field Data Collection Guide binder was to be collected both through interviews and documents, assembled in the OKM office, and filed by the PHA. All team members were provided access to the materials. The materials were filed

according to the topics listed in the collection guide per the document control checklist. The exact issues to be categorized were dependent on the actual material collected from the sites (See Chapter 3 for a presentation of the research findings).

TASK 5 - RECONNAISSANCE AND SITE CONFIRMATION

The OKM team underwent in-house training prior to going out to the field. The training was conducted by Jeffrey Lines, Project Director, and William Jackson. It was based on the use of the Field Data Collection Guide and interview and documentation techniques. The first session of the training involved the use of the interview guides. All of the guides were reviewed, with the comments and observations that arose from the pre-test incorporated into the guides.

OKM team members were instructed in the proper protocol for administering the interviews. It was stressed that not all PHA staff will be able to respond to a particular question. The interviewer should determine from the respondent who in the organization can answer the question and follow up on the lead.

The second component of the training consisted of what is referred to as Field Confirmation Protocol (FCP), the collection and confirmation of documents. FCP is the system OKM generated for verifying all previous responses and documentation. This session was conducted by William Jackson, a CPA, as the methodology was similar to public accounting auditing field work and techniques. All of the team members were present at the training and all members participated in Reconnaissance.

The full listing of documents requested from the PHAs can be found in Task 4 of this chapter. The team members were instructed to gather as many documents as possible from the PHAs using a two-step procedure. All sites received the document collection list prior to the OKM team visit. Not all sites were able to mail the documents to OKM before the visit. OKM team members reviewed the documents, either mailed or presented upon arrival. This gave the team the ability to identify missing items and track them down during the interviews. A discussion of the outcome of the document collection is found in Task 6 of this chapter.

The original pool of sites for Reconnaissance consisted of six large P-BA sites and one alternate, four medium P-BA sites, four large non-P-BA sites, and two medium non-P-BA sites. The Reconnaissance list was kept to a minimum through the use of the threshold questions described in Task 4. All of the sites chosen for Reconnaissance remained in the final site selection pool with the exception of one of the medium P-BA sites. This site was eliminated in the early stages of Reconnaissance through phone reconfirmation and did not necessitate field Reconnaissance.

OKM performed both oral and written outreach to ascertain which agencies possessed a P-BA system. The list of PHAs that received Public Housing Urban Initiatives Grants in the late 1970's served as one source PHAs and Fee Accountants with knowledge of financial activities also provided referrals. The NAHRO guide provided general information on PHA size, location and geographic area.

PHAs contacted by OKM responded to the basic question of whether they had a P-BA system. A follow up questionnaire directed to the Executive Director and/or Director of Finance, determined the threshold of P-BA at the agency. The threshold questions screened out those agencies that would be unsuitable for reconnaissance. In the course of the site selection work, it was determined that encountering P-BA systems at medium size P-BA sites would be difficult. The P-BA systems at these sites are in the beginning stages and less well developed. Therefore the threshold for including the medium size PHAs was lowered, to enable a distribution of PHA sizes.

The criteria for selecting a PHA to be a participant as a P-BA site included:

- Willingness of the PHA to participate
- Understanding of P-BA
- Use of P-BA as a management tool
- Use of P-BA throughout the entire conventional Federal Low Rent Housing Portfolio
- Existence of budgeting at the project level

The above criteria did not apply to each site. It was determined that agencies with weak P-BA systems could be of benefit to the study serving as comparisons to those PHAs with a stronger use of P-BA. Even at this early stage of the study, it was clear that the range of implementation of P-BA at the different PHAs varied considerably. All of the P-BA sites underwent Reconnaissance, although some sites were subject to a more in-depth inspection

due to prior knowledge of the sites and the amount of information gathered in the site selection stage.

Non-P-BA sites participated in Reconnaissance by phone, as the criteria for selection hinged not on P-BA but on general characteristics. The criteria for selecting a PHA to be a participant as a non-P-BA site included:

- Willingness to participate
- Proximity to the OKM office
- Sufficient information on operating systems and availability of information on operating statistics
- Varied unit configurations pertaining to different household types (ie. large families, elderly)
- Automation characteristics

The Reconnaissance resulted in OKM's recommendation that all of the sites remain in the study, with all PHAs electing to participate after being approved by the OKM team. All of the large size P-BA sites were deemed to be appropriate to the study and met the P-BA criteria. The medium size P-BA pool posed a different set of issues for the team. One medium size P-BA was found to be in the beginning stages of P-BA implementation, while one medium site had the capacity through a newly purchased automation system to implement P-BA but had not committed to P-BA. The third medium size P-BA site did have a functioning P-BA system in place. Since the nationwide pool of medium sized PHAs with P-BA is very small, it was decided to include all of the medium P-BA sites.

TASK 6 - DATA COLLECTION AND ANALYSIS

The positions defined and identified in Task 4 proved appropriate for the interviews. However, two additional positions were added to the list - the Directors of MIS and Maintenance. The Director of Maintenance was considered to be important since much of P-BA revolves around accounting and distributing maintenance costs for the developments. In addition, the existence of decentralized versus centralized maintenance often is directly related to the implementation of P-BA. In larger agencies, the Director of MIS had a better grasp of the automated system, the monetary costs, and pros and cons of the hardware and software (all information requested by the OKM team). At certain other PHAs, the staff

primarily consisted of a Director of Finance and no Budget staff, and the accounting staff consisted more of bookkeepers, possessing little input or knowledge of the system. The HUD staff interviewed consisted primarily of Financial Analysts and Housing Management Specialists for Public Housing.

The degree of document collection precision varied considerably from agency to agency. As noted in Task 4 of this chapter, OKM intentionally asked for any documents available so as to cover as many items as possible. The overall response to the data collection instruments was favorable, with most PHAs supplying a similar range of documents. There was a definite pattern on what documents were not found throughout the agencies. Some of the items that could not be (or were rarely gathered) included:

Management or other audit reports
Central warehouse allocation plan
Study on P-BA system done for the PHA
Training manual
Operations manual on P-BA
Internal cover memos on P-BA problems
System flow as it relates to P-BA system (generally IPAs did not have or were unwilling to provide this information)

PHAs that may have installed automated systems more than ten years ago had a harder time accounting for costs of the system. They also had a difficult time describing the costs in relation to P-BA. In addition, many of the PHAs could detail lump sum costs of the automated system but could not break out training, installation, and maintenance costs.

Following is a brief description of the project-based accounting system at each of the nine P-BA sites. The information described in the narratives, as well as additional PHA characteristics, can be found in Chapter Three. A matrix detailing the PHA characteristics is also presented in that chapter.

Site #1 - The P-BA System at this PHA has been in place for almost 10 years. The system was undertaken initially as a part of the HUD Public Housing Urban Initiatives Program and a state supported grant. The agency was experiencing significant management problems and was on HUD's national list of financially troubled PHAs. Overall, there were few controls over expenditures and the agency felt there was a need to provide additional support for staff

assigned to public housing developments. The Authority did have a number of public housing development-based cost centers, but many of these cost centers had never been used to properly track costs. Many of the expenses were simply prorated or distributed.

During the early and mid-1980's as a part of a major management improvement demonstration program, the agency upgraded its data processing system with the purchase of modified packaged software and new hardware. The system is designed to support a twenty-one (21) digit chart of accounts numbering structure which can accommodate a very sophisticated Project-Based Accounting System. The agency also has a fully functioning Project-Based Budgeting System. The cost allocation schemes used by this agency cover a variety of methods, including Full Time Equivalent's (FTEs), per unit prorations, use of time spent, per bedroom distributions and percentage of direct costs compared with overhead expense. The use of the allocation method varies considerably with the type of program and cost element being treated.

To many at the agency and at HUD, the agency's P-BA and P-BB systems have had a positive contribution to the improvement in the financial and operating condition of the public housing program. The agency continues to actively use the P-BA in its budgeting and continues to maintain and modify project-level reports as needed.

Site #2 - Project-based accounting has been in place at the agency for approximately 12 years. The system began with the first development, and was kept in place with each subsequent development. The executive staff and the financial staff which have been using the system feel that this is the only way to account for a PHA's expenses and budget accordingly. The agency does not contract out any work (except CIAP and CD), so they need to keep a tight watch on expenditures relating to in-house activities. Additional staff was not necessary due to P-BA or automation, but the PHA has experienced a general increase in staff due to growth of the agency. The agency has been automated for approximately five years, using NCR hardware and software. The PHA does not have in-house programming capacity but it has hired a former NCR employee familiar with its system, as a consultant to do the programming and updates. The PHA follows the HUD chart of accounts.

Property managers receive P-BA expense and income reports on a monthly basis. However, the managers do not prepare their own budgets and appear to be removed from the budgeting function, as budgeting is an executive level activity. Staff did not receive formal training on the system, but ad hoc training, tailored to specific positions has been provided

upon request. The agency bases a substantial amount of their development data on unit allocations, but it should be noted that most of the developments are very similar in structure and type.

Site #3 - The PHA implemented P-BA in 1977. Initially P-BA was done manually, then on personal computers, and now is fully automated on the PHA's mainframe computer. The agency did have an operational mainframe computer before P-BA was instituted. The agency participated in two HUD programs that addressed Project-Based Accounting and Budgeting. The first was the Target Projects Program in the mid 1970's. The agency also received an Urban Initiatives grant to implement the process, in conjunction with a re-structuring of the organization. The re-structuring consisted of decentralizing its management and maintenance systems. The agency was having serious problems with rent collection and poor maintenance services, and decentralization was seen as a response to the operating problems. The cost centers for the system are the developments. The P-BA system has been automated since the late 1980's. The agency uses Wang hardware and word processing and Data Directions Inc. software. All of the staff agree that in selecting a system, the degree of responsiveness and assistance provided by the company is crucial.

The project-based reports provide information on materials and supplies and non-routine maintenance. However, the system does not provide an administrative salary or maintenance wage breakdown by development, and staff would like to have this information available to them for planning and scheduling purposes. The chart of accounts for a development mirrors the HUD chart of accounts. The accounts can be broken down into further detail if a staff member requests additional information. Staff did offer suggestions to OKM regarding changes in the P-BA reports, but no one had ever directed the requests to those in the agency capable of changing the reports. The agency feels that central office costs should not be allocated to projects. They are of no concern to managers and would not improve on-site management and accountability. A central office cost center would make more sense. The agency also has department-based accounting and budgeting. The overall impression of the staff is enthusiasm for P-BA and budgeting at the cost center level. However, the reaction to department-based accounting and budgeting is mixed.

Site #4 - The P-BA system at the PHA has evolved over the years since it was first implemented in the 1950's. The system became fully operational with the installation of their present computer system (custom/package software, using IBM hardware). This system does not have a fully integrated database, which often results in the inability to provide

timely information. Due to the size of the PHA, the cost centers for the system are broken into groups and subgroups. The groups consist of clusters of developments, while the subgroups are the development numbers. The P-BA reports are generated by the 29 groups, rather than over approximately 130 public housing developments. The PHA has expanded reports based on the HUD chart of accounts to incorporate a significant number of subaccounts for a greater level of reporting detail. This P-BA system has the greatest number of subaccounts of any of the PHAs in the study.

The agency has a cost allocation plan which appears to be based on various prorations. There are concerns regarding the accuracy and completeness of items charged to cost centers. Scattered-site units, which are handled in the same manner as the rest of the PHA stock, are dispersed throughout different groups, so any analysis of scattered-site units is difficult to undertake. Project management staff receive monthly income and expense reports, along with comparative reports. Since the PHA is very large, staff feel that the costs of P-BA in regard to accounting is minimal, and the costs are integrated into the overall accounting costs. The costs arise from the level of effort associated with the Housing Management Budgeting Department and the MIS area.

Site #5 - As it now stands, the PHA does not have project-based accounting, but it does have the capacity to implement it in the future. The agency is undergoing automation with CCS software. Some of the modules are up and running, although the system is not fully integrated yet. The staff which chose the automation package incorporated the ability to provide P-BA as an important selection factor, so the system has a sufficient capacity to accommodate a P-BA chart of accounts numbering structure. Reports are presently generated by different categories, such as rent collection and vacancies culled from the Tenant Accounts Receivable (TARS) module. The reports are not project-based, although the categorical reports do break down information (e.g. rent) by development. A new staff position has been created to be in charge of the MIS system, and staff are already asking for customized information and reports. The Tenant Accounts Receivable module is functioning and managers are using the information for demographic characteristics, income, collection loss, vacancies, etc.

The senior staff at the agency have fundamental differences of opinion as to the pros and cons of implementing an organization-wide P-BA system. The Executive Director is looking to track factors that will reflect tenant accountability, while the Deputy Director is interested in cost-benefit analysis. Project-based statistics may then be distributed to

departments for their own internal purposes. The maintenance department currently keeps a manual ledger on maintenance operations for budgeting purposes, which is very similar to a breakdown of financial activity generally found in a fully functioning P-BA system.

Site #6 - The PHA development of P-BA is linked to the availability of funding in the late 1970s through HUD's Urban Initiatives Program. The PHA saw the funds which were available as a resource to accomplish the automation of the agency. The fact that the funds were targeted for the design and installation of what was known as project-based budgeting (P-BB) had no impact on the decision to pursue funds. P-BB was seen as a requirement of the grant. While the required features had obvious benefit for increased detail on agency operations, there was no special internal use or program support for the system. Even now, the system, which can track cost detail for items such as maintenance or metered utilities down to the unit level, is often used retrospectively. Detailed statistics are often not used except to analyze issues identified at a more general level of reporting. The authority budget, which is broken down and tracked at the development level, is often used to investigate indications of problems shown on an aggregated level, such as utility expense.

The hardware system is a Data General mini-computer. A decision was made to have custom designed software, since there was little, if any, software designed for the unique operating needs of a PHA. The major benefit of the custom-designed software is that the PHA has complete control of the source codes and does not need to protect itself against industry changes and corporate absorption which might lead to difficulties with technical support. The PHA has been able to refine the software for its needs without complex coordination with an outside vendor.

Site #7 - The agency started out using P-BA from its inception. It added the ability to produce consolidated reports in the 1970's to correspond to HUD's consolidated ACC reporting requirements. The agency received a Public Housing Urban Initiatives grant in 1980. The cost center approach is utilized by the PHA to track all of its different funding sources and allocations since it is a housing and redevelopment authority. The agency has sophisticated budgeting at the cost center level system. The agency was fully automated by 1981. The hardware was an IBM System 38, and the software was developed by a variety of companies as well as through in-house programming. The agency is in the process of upgrading its system to an IBM AS 400 as more capacity is needed. Each of the housing sites will eventually have its own computers. The new system will alleviate the slow response time of the current system.

The PHA has expanded the HUD chart of accounts to incorporate subaccounts for a greater level of detail. The housing managers receive monthly income and expense reports as well as a variety of topical reports. Certain staff indicated that in some cases too much information is generated, and they would rather have targeted reports, although the MIS Department is gearing more reports towards staff needs. In addition, reports showing comparisons between developments were requested by staff. The use of the P-BA information varies considerably by staff, even those within the same position or job classification.

The agency uses an allocation plan which divides all central costs that have to be disaggregated to the project level, into two pools. One pool is for fringe benefits and the other is for all other expenses. Expenses in both pools are based upon the distribution of direct labor to developments (any labor which is tracked to or charged to the development). The idea is that direct labor for a development will drive most of the central office costs. Although this plan has proved accurate, a new allocation study is being conducted by the agency.

Site #8 - The PHA implemented P-BA in 1980, after participating in the Public Housing Urban Initiatives Program in the late 1970's. The system was run manually until the late 1980's. The agency began automating in 1985 and automation is still underway. The finished system may take another year to be fully functional. The agency's project-based cost centers are made up of four geographic regions, with the exception of the Resident Management Corporation (RMC) region which functions as one entity. The regions were originally organized based on project types.

The P-BA system lacks a consistent use in the organization, and commitment to using the system is sporadic. There is a general consensus among staff that too much detail can be disorienting. All maintenance staff time, materials and supplies and contracts are tracked to the site level. Scattered-site units are consolidated into their respective regions, as are different structure types for all developments, so there is no breakdown on costs by types of units. The agency does not generate P-BA reports on a regular basis, and most of the staff do not receive any P-BA reports. One exception is the RMC regional cost center, which receives monthly income and expense reports. The area Managers and Site Managers have very little input into or knowledge of the budget process. The agency appears to be well managed financially and seems to have good control over expenditures.

Site #9 - The PHA is now in the process of implementing a functional P-BA system. It started the process in 1983 but wanted to be fully automated before advancing with the system. The agency did attempt to create an effective system before the automation but was hindered by the inability to track inventory to developments. Automation began in 1987 and is on track, using CCS software. The training for staff on the system consisted of three days for each staff member. The agency first converted from P-BA to enable a closer tracking of project costs. The Executive Director believes the most important benefit is the ability to track collection and vacancy losses by project. The automated system will allow for the needed coding system to track expenditures by project.

The agency uses unit distribution as the allocation method. Although the agency has a high percentage of scattered-site units, (close to one-third), it does not have plans for handling these units differently in the system. It should be noted that the scattered-sites are in one location. The agency is centrally managed for all activities, as opposed to the majority of the other study sites that are decentralized. Budgeting is confined to the executive level staff. The agency feels that there are no incremental costs for P-BA if it is implemented at the same time as automation. However, if time sheets were used, the agency may find an increase in about one person day per year throughout the agency.

Comments on Non P-BA PHAs - The non P-BA agencies ranged from sites that are on the verge of automating to sites that have the capacity to implement P-BA on short notice. One site had previously used P-BA in a structured manner, but has discontinued the system, although it continues to gather some items of information by project. The majority of the non-P-BA sites do not have in-house programming capacity, as their operations are not geared to the reporting and information functions of P-BA sites. For a further discussion of the non-P-BA sites, see Chapter Three.

In order to facilitate the exchange of information on the P-BA sites among OKM team members, each senior team member prepared a succinct description of the sites they visited. A standard outline was developed (as described in Task 4) for the site write-ups. A sample of one P-BA site write-up can be found as Appendix A of this Report. The sample was prepared for internal use.

TASK 7 - P-BA GUIDEBOOK

The P-BA Guidebook is the final product of the research activities. The Guidebook is a document for PHAs to use: (1) in considering whether to convert from a consolidated to a project-based accounting system, and (2) in determining whether P-BA is the optimal managerial and accounting system for their particular operations and needs. This Guidebook is organized into five chapters

Chapter One, ***Introduction to Project-Based Accounting,*** sets the context for the Guidebook, its purpose, how it should be used and what information it holds. P-BA is defined, and the reasons to employ P-BA are suggested. The benefits of P-BA and the relationships to the differences in PHA characteristics are explored.

Chapter Two contains a discussion of the ***Minimum Requirements for a Standard Project-Based Accounting System*** . Minimally required accounts, cost allocation method, and reporting are discussed.

Chapter Three describes ***Enhancements to the P-BA System Which Supports Internal Management Needs.*** This chapter is the companion piece to Chapter II, and expands information on reports generated by the P-BA system, cost center level of accounting, the use of subaccounts, alternative cost allocation methods, and internal reporting. Project-based budgeting is also discussed.

Chapter Four offers advice regarding ***The Process for Designing, Implementing and Maintaining a Project-Based Accounting System.*** It provides a step-by-step approach to evaluating automated P-BA systems and determining the right system and capabilities for individual PHAs. Information on evaluating proposals, conducting negotiations, and monitoring installation is presented. The chapter also addresses ongoing system maintenance, training, organizational enhancements, and evaluation.

Chapter Five discusses ***Determining the Cost to Convert to a P-BA System.*** Primary categories of costs are delineated, including hardware and software, consultants, training, maintenance costs and opportunity costs. The methodology for arriving at the costs is described.

Supplementing the information contained in the five chapters are four appendices. Appendix I provides *Sample P-BA Report Formats*. Appendix II offers a model *Project-Based Solicitation Package* for a PHA that wishes to obtain technical assistance in the development, installation, and maintenance of a P-BA system; and a Request for Proposals (RFP) for procuring an automated P-BA system. Appendix III includes a *Sample Checklist for Steps to Follow In Evaluating P-BA Systems*, and Appendix IV provides four *PHA Case Studies* examining the process the PHA underwent to install a P-BA system.

SUMMARY

All of the activities of the OKM team were based on the Contract requirements and were conducted as delineated in the work plan. The research activities went according to plan with the exception of the need to extend site visits to accommodate a slow start and holiday schedules. As the data collection progressed, it became clear that P-BA serves a wide variety of functions depending on the organization. The next chapter, Chapter Three, will detail the findings of the study gathered from the fifteen sites.

CHAPTER THREE - FINDINGS

INTRODUCTION

As described in Chapter Two, the primary research effort consisted of data gathering at fifteen public housing agencies. The identities of the agencies have been masked for the purposes of confidentiality. This chapter details the key findings of the site research. The findings are also reflected throughout the P-BA Guidebook.

Project-Based Accounting differs considerably from PHA to PHA. However, with few exceptions, it is useful to the agency in tracking costs and managing developments. The number of PHAs using project-based budgeting is low, but as an informational tool it is used extensively. Monthly reports provide staff with a good overview of the activities of the developments and help them focus on problems or identify unusual trends.

DISCUSSION OF FOURTEEN RESEARCH QUESTIONS

The study of Project-Based Accounting was guided by the fourteen research questions which were included in the contract. During the research design and development of the analysis plan, these questions were revised to clarify and elaborate on the issues which formed the basis for the questions For the benefit of the reader, the issue(s) which supplemented the questions are included to provide additional context.

Summary of PHA responses to the research questions are presented in this chapter. There were a range of responses and opinions expressed by PHAs. Whenever appropriate, specific aspects of the P-BA systems studied are referenced to illustrate the range of features, configuration and use. It is important to recognize that each P-BA system was in some manner unique. This uniqueness was only moderately due to the absence of standard system requirements or features, and mostly due to the fact that each P-BA system was installed to support the unique organizational and management structure in place at the time. No PHA had its operations organized identically; therefore no P-BA system had an overall configuration which mirrored any other.

1. What specific benefits are associated with P-BA, as opposed to consolidated accounting?

Issue: *It is assumed that the availability of project-level cost data will improve PHA managers' ability to track funds and to identify high-cost projects How have PHA managers used this information to improve their operations? What evidence exists that P-BA has produced more effective PHA management?*

In general, those PHAs with Project-Based Accounting have found greater organizational capacity to identify the source of cost overruns and mismatches between available resources and true need at the site level. At many of the data collection sites, site-based managers did not have budget oversight responsibilities, did not oversee site-based maintenance, and did not receive information on utility usage or other accounts that represented controllable expenses. Through the site visits, it was observed that Senior Managers benefited the most from the P-BA reporting capacity. In general, all P-BA systems observed broken-out items in such a manner that any under-runs or over-runs against the operating budget could be traced back to specific developments or project- level cost centers without excessive research or reconstruction of records.

In some cases, comments were made in different organizational areas of the PHAs that down-played the effectiveness of the P-BA system. There appeared to be a link between the comments and how effectively the P-BA reporting system was tailored to the needs of staff in that functional area. At one PHA, the project management staff reported no significant benefit, but that PHA limited field managers to lease enforcement and rent collection. Another and much larger PHA's project management staff felt that the P-BA reports contained discrepancies in terms of postings and confusion between items included on a cash basis and accrual, which in turn led to difficulty in determining exactly where their budgets stood.

Specific supportive or critical comments aside, most senior managers recognized that in theory P-BA system increased accountability and that a system designed to their unique organizational needs would enhance problem identification beyond the capacity available through a consolidated system.

2. Since P-BA is not required of PHAs, why did certain PHAs convert from consolidated to P-BA?

Issue: *HUD requires only consolidated accounting of costs from PHAs. What prompted some PHAs to switch to P-BA? What studies/analyses did these PHAs perform to support the decision to adopt P-BA?*

The decision to obtain P-BA capacity was in many but not all cases, related to automation. Many of the PHAs which were visited had automated or upgraded their automation as a benefit of the HUD Public Housing Urban Initiatives Program in the late 1970s and early 1980s. An objective of that program was to develop project-based budgeting capacity at the PHAs. Some of the PHAs found that such systems aided their internal management needs, even though reports must still be submitted on a consolidated basis. It should be noted that most Area Offices were not set-up to analyze the more detailed information made available through the new system.

No studies or targeted analysis of P-BA were undertaken by the PHAs prior to installation of the systems. In most cases, the conversion to P-BA systems appeared to be a secondary benefit of the automation process. In several cases, the establishment of P-BA was a benefit of accounting software that met the overall needs of the authority but also had the capacity to track by cost center and the additional data entry steps were minimal once the coding system for allocation was learned

3. What significant differences exist among installed P-BA systems? How do these differences affect the operation of P-BA?

Issue: *It is assumed that PHAs which have installed P-BA generally have done so independently of one another, producing P-BA systems which may differ. Further, PHAs which have installed P-BA possess different operating circumstances and characteristics. Are there particular PHA features or P-BA approaches which are associated with the degree of benefits derived from P-BA?*

Specific differences clustered around specific features How cost centers were defined varied from PHA to PHA. The type and number of sub-accounts also varied. The type of reports and their readership related directly to the unique organizational needs of each PHA. Reporting varied based on the amount of decentralization in the management structure.

Systems of cost allocation varied. The variety of cost allocation approaches was directly related to how the cost centers were defined. One PHA had formally linked budgeting at the project level with capital planning. The use of a P-BA system for the purpose of internal and quality control for the operations of the agency also varied from PHA to PHA.

It appears, and is the opinion of the OKM project team, that carefully defined cost centers, with appropriately expanded chart of accounts (use of sub-accounts), budgets prepared at the project cost center level, links between operating and capital budgets and the establishment of operating standards through a internal and quality control staff all enable a PHA to maximize the usefulness of P-BA as a management tool. Absence of these features or poor conceptualization of these features diminish the value of the system as a management tool.

It appears that those agencies with strong and stable senior management have made the best and most consistent use of their P-BA systems. In addition, the presence of at least one individual on staff who was capable of modifying the system as the PHAs grew in size and changed organizational structure was essential to keeping the system viable. In those cases in which project-level management staff were allowed to utilize the reports for their decision-making, a higher skill level was required. While in theory any PHA should benefit from the detailed information available through a P-BA system, medium and large PHAs with multiple cost centers appeared to derive maximum benefit. Total units under management was not, by itself, the key indicator of whether a PHA would receive maximum benefit from an installed P-BA system. ***For a PHA to get the full benefit of the accountability P-BA introduces, sufficient staff are needed to separate operations from accounting and both of these from an internal control and audit function. Should a staff member's responsibilities include tasks from more than one of these three areas, then the operational checks and balances that a P-BA system can promote are diminished.***

4. What differences exist between the operations of consolidated and P-BA systems, and what effect do these differences have on PHA administration?

Issue: *In order to understand the full implications of converting to, and maintaining, a P-BA system, PHAs and the Department must be aware of: (1) the operational differences that exist between consolidated and P-BA systems; and, (2) the extent to which these operational differences impact upon PHA administration Does P-BA*

imply a change in staff skills and/or responsibilities? Does P-BA prompt a more decentralized approach to PHA management?

Based on the sites which were visited as part of the study, there is not a strong tendency to increase site-based management responsibilities. It appears that the installation of P-BA did not lead directly to any PHA changing over to a decentralized management system. P-BA is neutral in that it can be implemented to support any existing organizational structure. It should be noted that three of the PHAs with P-BA systems (including the largest two in the study) did have decentralized management systems in place, but P-BA was not the primary reason for decentralization as a management approach. The changes in staff skills and responsibilities that might occur depend on changes in the reporting distribution, which might require additional training should the staff person not be familiar with the purpose and use of the report. Retraining for data entry staff would be necessary but the additional coding, once learned, would not require new skills or added responsibilities.

a. How are responsibilities for specific line items in a Project-Based Accounting system and the related budget management, assigned among staff members of the PHA?

Issue: *It is expected that project level financial information is used to improve accountability and to provide program and site staff with the information needed to make decisions which affect project-level management. How does a PHA accomplish this through the assignment of responsibility for expenditure activity and management as it relates to P-BA?*

As every operational area at a PHA has a related cost which is allocated to an account or sub-account, it is possible to tie fluctuations in that account to the actual performance and decisions of the manager(s) who oversee that operational area. PHAs were visited in which a manager gets reports for operations under their control, and PHAs were visited in which only the most senior managers get the information. ***No PHA visited significantly modified its organizational model because of P-BA being installed (though other reasons may have led to a change in the Table of Organization or job descriptions). There is no specific method or reason to the assignment of direct responsibility that appears to be directly related to P-BA.***

b. How have PHAs specifically altered their accounting systems to accommodate P-BA?

Issue: *It is expected (and is the direct experience of the project team members) that in order to implement a P-BA system which fits the operational definition being used in this project, that some level of alteration or change to the PHAs accounting systems will have been necessary. How did the PHA change its consolidated system to provide project-level information? What accounts does it use or not use and why? Even if the PHA has only replicated the HUD accounts on a project-by-project basis which if any of these accounts does it not track? Finally, in comparison with its original consolidated system what sub-accounts might it use or have added or deleted?*

Modifications of the Chart of Accounts varied from PHA to PHA. All Chart of Accounts used by PHAs contained at the least the basic accounts carried on the consolidated chart specified by HUD in Handbook 7501.1. Larger agencies tended to have more sub-accounts which are used to track information within each cost center. Across PHAs, maintenance and utilities accounts have the most sub-accounts. For a more detailed presentation on the Chart of Accounts at the PHAs see the summary matrix, Figure 3-2, located on page #57. Depending on the site, different sub-accounts are used, such as a site that has only electrical usage and no gas or other fuel usage. The issue appears not to be the accounts used or not used, but the level of detail that needs to be tracked relative to the PHA's need for accountability, planning, and internal control. It was observed that not every account needs to be summarized in a report that is directed towards the site-level managers if the account is not controllable by the actions of that manager.

c. What other program and organizational considerations does the PHA make in operating its accounting system and in overall budget management?

Issue: *P-BA systems are expected to provide financial detail at a level sufficient to better assess project operations. If a PHA has a P-BA system why should it not be expected to have developed cost centers relating to departments, divisions or other management or program clusters in order to improve information available on other various aspects of PHA operations? How has a PHA organized its internal operations in response to P-BA or has the PHA adapted its P-BA system to improve or make better use of its organizational structure that was in existence prior to P-BA?*

Many PHAs use their P-BA system to track all agency operating income and expenses. This can include leased housing administration, modernization, and other programs which are not federal conventional low income housing. It appears that the process of defining cost centers has led several of these PHAs to become more conscious of the individual functional areas and programs of the authority and how they use resources and support each other. ***As mentioned above, no PHA stated directly that P-BA made them change their organizational structure. However, many examples were cited as to how the information available through P-BA has led to analysis of operations and changes in procedures or modifications in the organizational structure that might not have occurred if information was only available on a consolidated basis.***

d. Is P-BA enhanced by, or does it require automation to be an effective accounting system?

> **Issue**: *Many PHAs will use micro computers with spreadsheet and related standard "over the counter" programs. In differentiating between automated and manual PHAs and in assessing the PHAs' true financial systems capability, the determination of what constitutes automated and manual "driven" systems at the PHA will be of importance to the project. This is particularly significant when determining the differences between operating systems in place at the PHA and the different size categories of PHAs, as well as whether they require similar levels of support to both install and sustain P-BA*

As the P-BA PHAs visited had virtually no manual accounting systems at any level in the organization, the major role that the field staff took in reviewing financial data or providing additional or enhanced information seemed to be limited to reviewing reports generated by P-BA to notice discrepancies. No PHAs had a site-based system of either a manual or automated nature that tracked site-based data independent of the P-BA system. However, in several circumstances, individual managers did maintain their own tracking so that they could review and provide quality control on the reports they received about activity at their sites.

e. How is the accuracy of financial and accounting confirmed at the project level?

> **Issue**: *A PHA should have a mechanism for quality control, to accurately track the information that is being generated by the system at the project level. Since much of*

the "source" information will form the basis for the larger allocation of expenses and reporting of expenditure activity, accuracy is the key to a successful system. The process for reviewing P-BA generated information to assess accuracy and the integrity of source data being utilized by the PHA system is therefore, essential to assessing the reliability of the entire P-BA system.

All PHAs practiced quality control in one form or another. The issue of quality control appeared to be a large concern of the managers whose performance or available budgetary authority was affected by what the P-BA system indicated was accrued or encumbered. The issue of quality control led managers at several PHAs to indicate that the practical aspects of P-BA can be limited based on the confidence level of the information reported and the proper allocation of expenses in a manner that reflects the actual operations of the agency. While no PHA had a staff person or group designated to investigate apparent errors carried on the reports, site-based managers at several different PHAs thought that some form of an ombudsman or independent quality control function was needed.

5. What cost elements must be accounted for at the project level to provide a true picture of the cost of operating a project?

Issue: *It is assumed that utilities, maintenance and custodial labor, and material and supplies should be accounted for at the project level. What other items, consistent with existing HUD accounting requirements, should be and could be accounted for at the project level?*

The inclusion of additional items besides utilities, maintenance and custodial labor, and material and supplies depends on the exact division of responsibilities and functions at the PHA. The OKM team would suggest the use of specific additional categories. One category that could be added is the legal costs as they pertain to evictions or other cost center or project specific issues. Employee benefits and certain type of insurances such as automotive could also be accounted at the project or cost center level depending on the type of benefits and the attribution of specific insurance. At a minimum the following items should be carried:

Income

Dwelling Rental (account 3110)
Excess Utilities (account 3120)
Nondwelling Rental (account 3190)
Interest on General Fund Investments (account 3610)
Other Income (account 3690)[1]

Expenses

Administrative Salaries (account 4110)
Administrative Expenses Other Than Salaries (accounts 4130, 4140,4150, 4170, 4171, and 4190)
Tenant Services (accounts 4210, 4220 and 4230)
Utilities (accounts 4310,4320,4330,4340, 4350 and 4390)
Ordinary Maintenance and Operations (accounts 4410, 4420 and 4430)
Protective Services (accounts 4460, 4470 and 4480)
General Expenses (accounts 4510 and 4590)
Non-routine Maintenance (accounts 4610, 7520 and 7540)

In regard to utilities, it is recommended that the PHA take steps to provide for all categories of utilities expenses which are collected and reported on HUD Forms 52722A and 52722B.

a. How is operating data used to make decisions on capital improvements? Should there be a link between capital planning and operations?

Issue: *HUD does not require Project-Based Accounting systems, only consolidated systems. It is up to the PHA to determine the integration of their financial management and planning between programs. Does a closer link between operating and capital programs improve operations? How, or even do, the PHAs relate capital improvement planning and financial activity with their conventional operating program?*

[1]Note the PHA if applicable, should include amounts contributable to accounts 7110 and 7530 under Operating Receipts. For further instructions please see the Guidebook.

Within a limited context, as noted from the site visits, it appears that capital and operational planning are integrated at the PHAs. Unusual maintenance costs at a development were cited in several instances as the justification for deciding to modernize a physical system. The ability to use P-BA to develop supporting documentation for funding and grant requests was also cited. In fact, one of the larger PHAs with a P-BA system had a capital planning process which required review of operational expenses to help identify capital items and priorities.

b. For some PHAs, in particular large PHAs, additional programs besides the federally subsidized low income public housing program provide resources to the PHA for the provision of additional services to residents. How should the costs of these programs be accommodated in a P-BA system?

> **Issue:** *Many PHAs incorporate other program funding, especially related to social services, into their operating and financial plans. As a component of operations, additional sources of funds need to be addressed in order to convey a complete financial picture. How do PHAs account for financial activity supported by other program funding and use this information to assess financial data generated through the P-BA system?*

In several cases, departments other than those directly involved in conventional low cost public housing were accommodated in the P-BA system. They were treated as cost centers no differently than a development might be treated as a cost center. These are essentially program-based cost centers.

6. How should costs be allocated when they cannot be broken down to the project level?

> **Issue:** *There are expected to be instances when items which can normally be accounted for at the project level are shared by several projects, creating the need to pro-rate costs. For example, one utility system may serve several projects or one project manager may be in charge of several projects*

In those cases in which these indivisible costs were not treated as their own cost centers, prorations by unit counts was the most commonly used approach.

7. How should central office costs be accounted for in a P-BA system?

Issue: *In addition to overall administration and direction, there are a number of functions that PHAs normally administer in a centralized fashion, such as insurance, labor relations, purchasing, eligibility determinations, and legal work. Is it desirable to pro-rate these central office costs to the project level? If yes, what would be the best approach to pro-rating?*

The PHAs did not express a clear rationale for choosing one approach over the other. Prorations by unit counts was by far the most common even if it skewed project specific costs for services a specific site might not have received. It is our experience, that proration by unit count is likely the most common method because it requires no analysis of which cost center(s) receives the specific benefit or partial benefit of the service. Several of the PHAs with P-BA did establish department cost centers with their own budgets in order to avoid the need to allocate some or all central office costs to the developments.

8. How should "project-level" costs for scattered-site units be accounted for in a P-BA system?

Issue: *Many PHAs have a relatively large number of scattered-site units. Although counted as one "project" by HUD for ACC purposes, these units can be very different from one another, and are often scattered throughout the community. For management purposes, it would be ideal to get actual costs for each scattered-site structure. However, this may not be feasible for large PHAs with many scattered-site units.*

During our site visits, no PHA provided an existing model as to how scattered-site related costs can be tracked. Several of the systems have the capacity to track utility and maintenance related costs by unit and therefore specific site, but other types of costs are usually prorated by unit distribution, which is blind to whether a structure is a one-family or multi-family structure. None of the P-BA systems seem to address locational issues which can impact upkeep and service expenses.

9. How should a Project-Based Accounting system account for "project-level" costs for developments which contain more than one housing type, such as high-rise elderly buildings and low-rise family at the same site?

Issues: *It is generally acknowledged that both structure type (high rise, low-rise, etc.) and occupancy type (family, elderly) have an impact on the costs of operating the properties. To get a true picture of costs, would it be desirable or useful to account for costs by structure type or occupancy type of buildings within a project which includes more than one structure or occupancy type? Would it be useful to PHA management? To HUD for monitoring or research purposes? Would the costs of accounting to this level outweigh potential benefits?*

No P-BA system reported data on a structure-by-structure basis, which is what would be required in order to make the distinctions for housing type. Interviewees acknowledged that operating costs varied because of the mix of structural types at a development. Several of the P-BA systems could even report maintenance costs and rental income by structure because of unit addresses, but no PHA had cost centers based on structure type. If people were to address the issue as a discrete cost center, it is the opinion of the OKM project team that there would not necessarily be a greatly increased cost, but it would require more elaborate coding of accounting data or greater use of proration of expenses.

10. What project-level reports should the P-BA system be capable of producing?

Issue: *While it is anticipated that the PHAs will choose to specify the reports that they want their own installed systems to produce, depending on their own perceived management needs for information, the P-BA system should be capable of producing certain standard project-level reports for HUD research and monitoring purposes.*

Simply put, the research concurs with the opinion of the OKM project team that the reports should cover line items or accounts which relate most directly to the operation of the developments by field personnel or the activities of the agency's departments. Reports should be at least monthly and provide an account-by- account description of budget versus expense items as well as income. It is proposed that the basic report for HUD should consist of all items up to line 620 on HUD Form 52599.

a. Who uses reports generated by the P-BA system - at a project, regional, central, and any other level - and what do they do with the information?

Issue: *It is not enough to know if reports are generated; the flow of information and the users of the documents are key to identifying any benefits to a functioning system.*

If the products are not universally understood, they will not be an effective instrument for making management decisions. An examination of the link between what reports are generated, who the reports are for, who uses them and how they are used is critical to assessing whether a P-BA system is effective at a PHA.

Except for the very largest PHAs visited for the study, reporting was found to be limited to senior and functional area managers. Other staff had access to these reports but were not the primary readers. Maintenance was one operational area that had the most extensive reporting because of the ability to track labor and material costs, type of activity (routine, emergency, and preventive) and location (unit or building) through an accurate and complete work-order system. In the larger PHAs, the key to effective use of the reports was an understanding of what information the reports were based upon so that factors like time lags between obligation of funds and their appearance on the actual report could be considered in the planning and decision-making process.

11. What PHA-level reports should the P-BA system be capable of producing?

Issue: *HUD now requires PHAs to report financial and budget information on a consolidated basis, i.e. covering all projects in one report. The Department does not now contemplate changing this basic budgeting and reporting procedure. Therefore, the accounting system must take into account the need to produce these consolidated reports, such as the HUD-52599.*

The research affirms that a P-BA system will not impair a PHA's capacity to generate consolidated reports in such a format as the HUD Form 52599. All P-BA systems which were reviewed as part of this study permitted all account and subaccount information by cost center to be "rolled" into aggregate reports. It appears that all the systems currently online at the PHAs have the capacity to assemble any grouping of accounts or subaccounts by any group of cost centers should such tailored reports be required.

12. What is the estimated cost of converting from a consolidated accounting system to a P-BA system?

Issue: *It is necessary for PHAs and the Department to know the estimated costs of converting from consolidated to P-BA systems in order to budget for these costs and to make judgments about the rate of implementation. The contractor shall develop cost*

estimates for conversion which include not only the cost of software and hardware, but also training and all other costs associated with installing a P-BA system.

The basic costs for converting to a P-BA system appear to be no different than the costs of automating or upgrading an automation system. None of the PHAs visited could provide cost data or analysis which presented the incremental difference in costs for a P-BA system versus a non-P-BA system. The cost of training appears to be no different than that associated with the introduction of any new reporting system. Should a PHA determine to decentralize its management structure, it appears that the cost is no different whether or not P-BA is included as a supporting system. Decentralization does appear to maximize the benefit of P-BA and is readily supported through the basic automation required to support P-BA. Further, a decentralized management structure does appear to have a higher staff cost associated with operation.

13. What is the estimated cost of administering a Project-Based Accounting system, in contrast with a Consolidated Accounting system?

Issue: *There may be additional specific costs associated with administering P-BA systems which are not now incurred by PHAs operating consolidated accounting systems. The Contractor shall identify costs associated with operating a P-BA system, and shall identify the extent to which these are additional costs, or are a substitute for other costs.*

There appears to be no data available at the PHAs visited which can answer this question. Based on interviewee comments, there appears to be an initial greater effort in implementing a P-BA system because of the need to establish cost centers and to change the organizational approach from a consolidated basis to one that make distinctions between services and their related costs and the specific recipients of those services. Also, for staff without any conceptual framework to understand the differences between a consolidated and cost center approach to accounting, there appears to be a longer learning curve which can translate into increased training costs or costs associated with quality control systems. As described elsewhere, installing P-BA at the same time as automation or upgrading automation appears to not have increased costs that can directly be attributed to P-BA. Therefore, the costs of going to a decentralized management model from a centralized model are not increased by the installation of P-BA at the same time.

14. What procedures and criteria should be used in evaluating proposals to install a Project-Based Accounting system?

Issue: *The Department recognizes the need to provide assistance to PHAs in installing P-BA systems. Accordingly, the Contractor shall identify the key considerations in selecting a system to be installed, and in ensuring that vendor support for the system is adequate.*

It was found that the most effective use of a P-BA system was when it was modified to match PHA organizational changes. Ease of system maintenance, the ability to create ad hoc reports, and the ability to create new accounts or sub-accounts as needed, are all of benefit. It also appears that integrated databases and systems that require only one entry of data into the system are also of value. User groups to design the system specifications are important to making the system responsive to user needs. Quality control features and ease in addressing incorrect data are also of benefit. Staff training is another component of P-BA which should be carefully considered with other aspects of implementation. For additional information, see Appendix II in the P-BA Guidebook for specific proposal evaluation criteria.

CROSS-SITE ANALYSIS

All of the sites participated in oral interviews, with the questions differing for P-BA and non-P-BA sites. As with any research project, the degree of information differs according to certain variables that exist at the site that are beyond the control of the research team -- number of respondents, respondents' degree of knowledge and interest in subject matter, and overall PHA commitment to the project. It should be noted that all of the participating sites were extremely helpful in their commitment to aiding the research team. All of the PHAs provided the required staff members and worked to accommodate the schedules of the research team.

It is interesting to note that although PHA senior management may feel that P-BA is used throughout an agency, questioning lower level staff yielded different results. Many managers at the project level felt that the concept on a whole was laudable, but they felt that they were not involved enough. A large number of managers wanted more input into the budgeting process, coinciding with greater control of their development. However, budget staff often complained about territoriality and their opposition to excessive input by

managers. Much of this disagreement stems from the basic issue of allocation of funding and the different perspectives of the two positions. The managers are based on-site. They determine the needs (whether justifiable or not) and look for timely results. The budget staff's goal is to keep the PHA solvent and present a balanced budget.

Despite PHA staff representations to the contrary, the research team concurred from direct observation that actual budgeting at the cost center level at most of the authorities studied is a fairly closed process. The budgeting issue extends beyond the issue of P-BA and non-P-BA, although those PHAs with P-BA will be able to budget in a more meaningful, and informed manner. The OKM project team believes that the main problems are the lack of training, the lack of setting of priorities, and often a lack of cohesiveness and communication throughout an agency's activities. Again, without a full understanding of the budget process and the relationship between funding and management, managers and financial/budgeting staff fall prey to recurring problems. Most managers could not respond to the question, "Do you know or understand how a subsidy is determined?"

Charts containing the information gathered at the sites can be found on pages #51 to #60. There are two charts. The first chart, entitled Site Data P-BA and Non-P-BA (Figure 3-1), contains the responses to questions generated by OKM and are intended to present an overview of each site. The first section provides demographic data and information on the PHA. The second section addresses automation, type and costs. The last section is directed to P-BA and operating statistics. The second chart, entitled Chart of Accounts Comparison (Figure 3-2), is a detailed breakdown of how PHAs group their classification of accounts. Please refer to Figure 3-1 and Figure 3-2 for information related to the following discussion.

Only one site of the fifteen studied is not automated. This site is in the preliminary process of procuring a system. Two firms provide the bulk of computer hardware, McDonnell Douglas and IBM, although three other companies are also listed as hardware providers. The software distribution is more diverse. CCS is the only firm providing software to more than one agency. CCS accounts for one third of the software distribution among the agencies. The cost of automation seems to be directly tied to the number of units: the larger the agency, the higher the cost. Also, more recent systems are less expensive than the older installations. The average length of automation for all of the sites is 6 years, with a range of 3 to 10 years. Some of the sites are still in the process of installing different modules.

FIGURE 3.1 - SITE DATA P-BA AND NON- P-BA

	#1 P-BA	#2 P-BA	#3 P-BA	#4 P-BA	#5 P-BA	#6 P-BA
UNITS CHARACTERISTICS (approximation)						
# Federal Conventional Units	13,000	1,854	39,679	1,320	4,084	2,464
# developments	54	18	@130	13	16	22
# elderly developments	34	6		2	4	13
# family developments	20	12		11	12	9
# units not federally funded as public housing	2,883	876	None	None	492	None
COMPUTER APPLICATION						
Hardware	McDonnell Douglas	Wang VS 65	IBM Mainframe	IBM	IBM AS 400	IBM
Software	CCS	Data Directions	Custom/Package	Data General	International	AMS
# YEARS IN USE						
P-BA System	10 years	13 years	Indefinite	6 years	Indefinite	10 years
Computer System	5 years	3 years	5 years	10 years	9 years	5 years
COST OF AUTOMATION						
Hardware/Software	$850,000	$258,500*	$1 million + *	$150,000	$697,165	$136,000
Maintenance		*Cost includes RFP	* rough		$91,824 (5 yr)	$6,500 yr.
Implementation		preparation by	non-binding			
Training/Supplies		consultant	estimate			
NOTE: Computer prices when not separated out include implementation and training						
Do they have Scattered-Sites?	Yes	Yes	Yes	Yes	Yes	Yes
How are they accounted for?	Grouped into one project	Grouped into one project	Grouped into est. cost center	Grouped into one project	Grouped into one project	Geographically
Do they have mixed use?	Yes	Yes, one site	Yes	No	No	Yes
How are they accounted for?	By development	Grouped into one cost center	Grouped into est. cost center	N/A	N/A	By Region

FIGURE 3.1 - SITE DATA P-BA AND NON- P-BA

	#1 P-BA	#2 P-BA	#3 P-BA	#4 P-BA	#5 P-BA	#6 P-BA
Is there budgeting at the Cost Center Level?	Yes	Yes	Yes	No	Yes	Limited
Do they use P-BA in operational planning?	Yes	Yes	Yes	Yes	Yes	No
Do they use P-BA in capital planning?	Yes	Being considered	No	For Maintenance	Limited	No
Are new operations planned?	No	Yes, additional reports	No	No	New Automation - upgrade	No
How are report formats driven?	User	User	MIS area	User	User	MIS area
Any auditors findings in relation to P-BA?	No	No	No	No	No	No
Is the organizational model decentralized, centralized or mixed?	Decentralized	Mixed	Decentralized	Centralized	Decentralized	Decentralized
How are cost centers delineated?	Developments	Developments	Clusters, Cost Centers (29 CC)	Developments	Developments	Geographic Regions
P-BA /automation timing	P-BA first	P-BA first	Automation first	Same time	P-BA first	P-BA first
What is the allocation method?	Units	Units	Units/Allocation	Units	Allocation plan	Units
Does the staff receive monthly reports?	Yes	Yes	Yes	Yes	Yes	No
Are they targeted to individual staff needs?	Yes	No	No	No	No	No
Agency have in-house programming capacity?	Yes	Yes	Yes	Yes	Yes	Yes
Did installing P-BA require a reorganization of the PHA?	Concurrent change	Concurrent change	No	No	No	No
Is there Department-based budgeting?	Yes	Yes	Yes	No	Yes	No
Do the managers prepare actual budgets?	Yes	Yes	Yes	No	For some items	No

FIGURE 3.1 - SITE DATA P-BA AND NON- P-BA

	#7 P-BA	#8 P-BA	#9 P-BA	#10 NON-P-BA	#11 NON-P-BA	#12 NON-P-BA
UNITS CHARACTERISTICS (approximation)						
# Federal Conventional Units	741	996	1,032	1,249	1,024	1,783
# developments	10	4	7	11	10	21
# elderly developments	2	1 *	3	9	3	10
# family developments	8	2 *	4	2	7	11
# units not federally funded as public housing	None	None		None	None	1;000
		*1 development is elderly & family				
COMPUTER APPLICATION						
Hardware	NCR ITX 10,000	McDonnell Douglas	McDonnell Douglas	Wang	Point Four	N/A
Software	NCR	CCS, Lotus	CCS	ADS, MCBA	CDC, Lotus	N/A
# YEARS IN USE						
P-BA System	12 years	N/A	7 years			
Computer System	5 years	3 years	3 years	6 years	5 years	Manual
COST OF AUTOMATION						
Hardware/Software	$153,650	$156,000	$152,500	$178,189	$185,000	Estimate $180,000
Maintenance	$4,498/yr	$1,188/month	$14,600/yr		$14,000/yr	
Implementation			$12,100			
Training/Supplies		$7,000				
NOTE: Computer prices when not separated out include implementation and training						
Do they have Scattered- Sites?	Yes	No	Yes	Yes	No	Yes
How are they accounted for?	Grouped into one project	N/A	Central office	N/A	N/A	Not yet decided
Do they have mixed use?	No	Yes	No	No		
How are they accounted for?	N/A	One mixed use development	N/A	N/A		

FIGURE 3.1 - SITE DATA P-BA AND NON- P-BA

	#7 P-BA	#8 P-BA	#9 P-BA	#10 NON-P-BA	#11 NON-P-BA	#12 NON-P-BA
Is there budgeting at the Cost Center Level?	Yes	No	Partial - future	No	No	No
Do they use P-BA in operational planning?	Somewhat	Not yet	Yes	N/A	N/A	N/A
Do they use P-BA in capital planning?	No	Only maintenance	Yes,for utilities	N/A	N/A	N/A
Are new operations planned?	No	New Automation	No	New Automation Reorganizing some operations	No	Process of automating, want P-BA
How are report formats driven?	MIS Area	User	N/A	MIS area	User	N/A
Any auditors findings in relation to P-BA?	No	No	No	N/A	N/A	N/A
Is the organizational model decentralized, centralized or mixed?	Mixed	Mixed	Centralized	Centralized	Centralized	Centralized
How are cost centers delineated?	Developments	Developments	Developments and departments	Overall department basis		By program, State and Federal
P-BA /automation timing	P-BA first	Automation first	P-BA first	N/A	N/A	Future - maybe
What is the allocation method?	Units		Units	Centralized costs	Units	Units
Does the staff receive monthly reports?	Yes	No	Not yet	E.D. & Board	Yes	No
Are they targeted to individual staff needs?	No		No	N/A	No	N/A
Agency have in-house programming capacity?	No	Yes	Yes	No	Yes	No
Did installing P-BA require a reorganization of the PHA?	No	Concurrent change	No	N/A	N/A	Future - maybe
Is there Department-based budgeting?	No	No	Planned	N/A	N/A	N/A
Do the managers prepare actual budgets?	No	No	No	No	No	No

FIGURE 3.1 - SITE DATA P-BA AND NON- P-BA

	#13 NON-P-BA	#14 NON-P-BA	#15 NON-P-BA
UNITS CHARACTERISTICS (approximation)			
# Federal Conventional Units	2,451	1,343	2,259
# developments	10	17	17
# elderly developments	5		
# family developments	5		
# units not federally funded as public housing	835	757	842
COMPUTER APPLICATION			
Hardware	McDonnell Douglas	McDonnell Douglas	Data Point
Software	CCS	CCS	MDS/IBS
# YEARS IN USE			
P-BA System			
Computer System	8 years		9 years
COST OF AUTOMATION			
Hardware/Software	$145,000	$283,000	
Maintenance	$23,000/yr	$17,773/yr	$14,460/yr
Implementation			
Training/Supplies		$24,200	
NOTE: Computer prices when not separated out include implementation and training			
Do they have Scattered-Sites?	Yes	Yes	Yes
How are they accounted for?	N/A	N/A	N/A
Do they have mixed use?	No	No	No
How are they accounted for?	N/A	N/A	N/A

FIGURE 3.1 - SITE DATA P-BA AND NON- P-BA

	#13 NON-P-BA	#14 NON-P-BA	#15 NON-P-BA
Is there budgeting at the Cost Center Level?	No	No	No
Do they use P-BA in operational planning?	No	N/A	No
Do they use P-BA in capital planning?	No	N/A	No
Are new operations planned?	Still installing modules	No	Yes, minor enhancements
How are report formats driven?	User	N/A	MIS area
Any auditors findings in relation to P-BA?	N/A	N/A	N/A
Is the organizational model decentralized, centralized or mixed?	Mixed	Centralized	Centralized
How are cost centers delineated?	Would be development	Project	Development
P-BA /automation timing	Automation first	Same time *	Same time *

* Have unused P-BA capacity

What is the allocation method?	Units	Units	Units
Does the staff receive monthly reports?	No	Yes	No
Are they targeted to individual staff needs?	No		No
Agency have in-house programming capacity?	Yes	Limited	Limited
Did installing P-BA require a reorganization of the PHA?	N/A	N/A	N/A
Is there Department-based budgeting?	N/A	Yes	N/A
Do the managers prepare actual budgets?	No	Yes	No

FIGURE 3.2 - CHART OF ACCOUNTS COMPARISON

	#1 P-BA	#2 P-BA	#3 P-BA	#4 P-BA	#5 P-BA	#6 P-BA	#7 P-BA	#8 P-BA
RENTAL INCOME								
3110 - Dwelling income	1 subaccount	Yes	1 subaccount	Yes	Yes	Yes	Yes	1 subaccount
3120 - Excess utilities	No	Yes	1 subaccount	Yes	Yes	Yes	No	Yes
3190 - Non dwelling rental	Yes	Yes	1 subaccount	Yes	No	Yes	No	No
NON RENTAL INCOME								
3610 - Interest	3 subaccounts	Yes	2 subaccounts	Yes	Yes	Yes	Yes	Yes
3690 - Other income	2 subaccounts	Yes	3 subaccounts Additional	1 subaccount	Yes Additional	Yes	3 subaccounts	9 subaccounts
OPERATING EXPENSES								
4110 - Admin Salaries	4 subaccounts	Yes	10 subaccounts	Yes	1 subaccount	Yes	Yes	Yes
4130 - Legal Expenses	4 subaccounts	1 subaccount	9 subaccounts	Yes	1 subaccount	Yes	Yes	Yes
4140 - Staff Training	Yes	1 subaccount	11 subaccounts	Yes	Yes	Yes	Yes	Yes
4150 - Travel	3 subaccounts	Yes	9 subaccounts	Yes	No	Yes	Yes	Yes
4170 - Accounting/Auditing Fees	Yes	Yes	4 subaccounts	Yes	Yes	Yes	No	Yes
4180 - Office rent	No	No,under 4190	5 subaccounts	No (telephone)	No	No (telephone)	No	Yes
4190 - Sundry	33 subaccounts	21 subaccounts Additional	28 subaccounts Additional	Yes Additional, 4160 Publications	22 subaccounts	Yes	Yes	46 subaccounts
TENANT SERVICES								
4210 - Salaries	Yes	Yes	11 subaccounts	Yes	Yes	Yes	Yes	Yes
4220 - Recreation/Publications	Yes	Yes	23 subaccounts	Yes	Yes	Yes	Yes	24 subaccounts
4230 - Contract Costs	7 subaccounts	Yes	20 subaccounts	Yes Additional, 4299 Total tenant ser.	No Additional, 4240 City Tenant Org.	Yes	Yes	2 subaccounts
UTILITIES								
4310 - Water	Yes	Yes	3 subaccounts	Yes	Yes	2 subaccounts	Yes	Yes
4320 - Electricity	Yes	Yes	3 subaccounts	Yes	Yes	Yes	Yes	Yes
4330 - Gas	Yes	Yes	2 subaccounts	Yes	1 subaccount	Yes	No	Yes
4340 - Fuel	4 subaccounts	Yes	2 subaccounts	Yes	Yes	Yes	No	No
4350 - Labor	3 subaccounts	Yes	10 subaccounts	Yes	Yes	Yes	No	No
4390 - Other utilities expenses	Yes Additional	Yes	10 subaccounts	Yes Additional, 4399 Total utilities	Yes Additional 4370 sewer	Yes	Yes	Yes

Keys:
YES - Follows HUD Classification
NO - Classification Does Not Exist
SUBACCOUNTS - presence of subaccounts
ADDITIONAL - Accounts (not subaccounts) which are not included in HUD Chart of Accounts

FIGURE 3.2 - CHART OF ACCOUNTS COMPARISON

	#1 P-BA	#2 P-BA	#3 P-BA	#4 P-BA	#5 P-BA	#6 P-BA	#7 P-BA	#8 P-BA
ORDINARY MAINTENANCE								
4410 - Labor	5 subaccounts	Yes	138 subaccounts	Yes	4 subaccounts	2 subaccounts	Yes	5 subaccounts
4420 - Materials	31 subaccounts	2 subaccounts	30 subaccounts	Yes	30 subaccounts	1 subaccount	Yes	19 subaccounts
4430 - Contract Costs	16 subaccounts	Yes	32 sub accounts	Yes Additional, 4400 Maint. & operat.	28 subaccounts	Yes	4 subaccounts	9 subaccounts
PROTECTIVE SERVICES								
4460 - Labor	4 subaccounts	Yes	6 subaccounts	Yes	Under acct 4800	Yes	No	No
4470 - Materials	3 subaccounts	Yes	9 subaccounts	No	Under acct 4800	Yes	No	No
4480 - Contract Costs	Yes	Yes	5 subaccounts	Yes Additional, 4499 Total protective	Under acct 4810	Yes	No	4 subaccounts
GENERAL EXPENSES								
4510 - Insurance	10 subaccounts	Yes	51 subaccounts	Yes	Yes	Yes	Yes	7 subaccounts
4520 - PILOT	Yes	Yes	1 subaccount	Yes	Yes	Yes	Yes	Yes
4530 - Terminal leave payments	1 subaccount	Yes	2 subaccounts	Yes	No	Yes	No	Yes
4540 - Employee benefit	4 subaccounts	Yes	53 subaccounts	Yes	Yes	1 subaccount	3 subaccounts	6 subaccounts
4570 - Collection losses	Yes	1 subaccount	3 subaccounts	No	Yes	Yes	Yes	Yes
4580 - Interest on Admin/Sundry	No	Yes	2 subaccounts	Yes	Yes	Yes	No	Yes
4590 - Other general expenses	Yes	Yes	8 subaccounts	Yes Additional	Yes Additional	Yes	Yes	Yes
NON-ROUTINE MAINTENANCE								
4610 - Extraordinary Maint.	Yes	Yes	Yes	Yes	57 subaccounts	Yes	Yes	6 subaccounts
4610.1 - Labor	Yes	Yes	111 subaccounts	Yes	Included in 4610	No	No	No
4610.2 - Materials	Yes	Yes	25 subaccounts	Yes	Included in 4610	No	No	No
4610.3 - Contract Costs	Yes	Yes	1 subaccount	Yes	No	No	No	No
4620 - Casualty Losses Non Cap.	Yes	Yes	Yes	Yes	No	Yes	No	Yes
4620.1 - Labor	No	Yes	106 subaccounts	Yes	No	Yes	No	No
4620.2 - Materials	Yes	Yes	24 subaccounts	Yes	No	Yes	No	No
4620.3 - Contract costs	Yes	Yes	1 subaccount	Yes	No	No	No	No
4620.4 - Proceeds from insurance	Yes	Yes	2 subaccounts	Yes Additional	No	No	No	No
OPERATING EXP. FOR PROPERTY								
7540 - Property betterments	Yes	Yes	Yes	No		Yes	Yes	Yes
7540.1 - Labor	No	Yes	109 subaccounts	Yes		No	No	No
7540.2 - Materials	No	Yes	25 subaccounts	Yes		No	No	No
7540.3 - Non expendable equipment	No	Yes	17 subaccounts	Yes		No	No	No
7540.4 - Contract Costs	No	Yes	1 subaccount	Yes Additional,7540.5 Insurance proceed		No	No	No

FIGURE 3.2 - CHART OF ACCOUNTS COMPARISON

	#9 P-BA	#10 NON-P-BA	#11 NON-P-BA	#12 NON-P-BA	#13 NON- P-BA	#14 NON-P-BA	#15 NON-P-BA
RENTAL INCOME							
3110 - Dwelling income	Yes	Yes	10 subaccounts	2 subaccounts	2 subaccounts	2 subaccounts	Yes
3120 - Excess utilities	Yes	No	10 subaccounts	Yes	Yes	Yes	No
3190 - Non dwelling rental	Yes	No	Yes	Yes	Yes Additional	No	No
NON RENTAL INCOME							
3610 - Interest	Yes	No	Yes	Yes	1 subaccount	Yes	Yes
3690 - Other income	Yes Additional, 4000 Expense control	No	2 subaccounts Additional	Yes	Yes	6 subaccounts	2 subaccounts
OPERATING EXPENSES							
4110 - Admin Salaries	Yes	Yes	1 subaccount	Yes	Yes	1 subaccount	2 subaccounts
4130 - Legal Expenses	Yes	Yes	Yes	Yes	Yes	Yes	Yes
4140 - Staff Training	No	No	Yes	Yes	2 subaccounts	Yes	Yes
4150 - Travel	Yes	Yes	Yes	Yes	3 subaccounts	4 subaccounts	2 subaccounts
4170 - Accounting/Auditing Fees	Yes	No	Yes	Yes	Yes	Yes	Yes
4180 - Office rent	No (telephone)	No	No	No	No	No	No
4190 - Sundry	11 subaccounts	2 subaccounts	18 subaccounts	Yes	15 subaccounts	26 subaccounts	15 subaccounts
TENANT SERVICES							
4210 - Salaries	No	Yes	2 subaccounts	No	1 subaccount	No	Yes
4220 - Recreation/Publications	Yes	No	7 subaccounts	No	No	No	11 subaccounts
4230 - Contract Costs	Yes	No	Yes	Yes	Yes	Yes	Yes
UTILITIES							
4310 - Water	Yes	Yes	10 subaccounts	Yes	Yes	Yes	Yes
4320 - Electricity	Yes	Yes	10 subaccounts	Yes	Yes	Yes	Yes
4330 - Gas	Yes	Yes	10 subaccounts	Yes	Yes	Yes	Yes
4340 - Fuel	Yes	Yes	10 subaccounts	Yes	Yes	Yes	Yes
4350 - Labor	Yes	Yes	10 subaccounts	No	1 subaccount	Yes	1 subaccount
4390 - Other utilities expenses	Yes	No Additional 4311 sewer	10 subaccounts	Yes, additional 4360 - Conservation	Yes Additional	Yes Additional	Yes Additional

FIGURE 3.2 - CHART OF ACCOUNTS COMPARISON

	#9 P-BA	#10 P-BA	#11 P-BA	#12 P-BA	#13 P-BA	#14 P-BA	#15 P-BA
ORDINARY MAINTENANCE							
4410 - Labor	Yes	Yes	7 subaccounts	Yes	1 subaccount	1 subaccount	46 subaccounts
4420 - Materials	19 subaccounts	Yes	13 subaccounts	Yes	16 subaccounts	1 subaccount	33 subaccounts
4430 - Contract Costs	9 subaccounts	5 subaccounts	16 subaccounts	Yes	13 subaccounts	21 subaccounts	33 subaccounts
PROTECTIVE SERVICES							
4460 - Labor	Yes	No	Yes	No	No	Yes	3 subaccounts
4470 - Materials	Yes	No	Yes	No	No	No	12 subaccounts
4480 - Contract Costs	Yes	No	Yes	No	Yes	Yes	8 subaccounts
GENERAL EXPENSES							
4510 - Insurance	Yes	Yes	Yes	Yes	Yes	9 subaccounts	1 subaccount
4520 - PILOT	Yes	Yes	Yes	Yes	Yes	Yes	Yes
4530 - Terminal leave payments	Yes	Yes	Yes	No	Yes	Yes	No
4540 - Employee benefit	Yes	Yes	5 subaccounts	Yes	2 subaccounts	6 subaccounts	3 subaccounts
4570 - Collection losses	Yes	Yes	Yes	No	Yes	Yes	1 subaccount
4580 - Interest on Admin/Sundry	No	No	Yes	No	No	No	Yes
4590 - Other general expenses	Yes	No	Yes	No	Yes	Yes	3 subaccounts
NON-ROUTINE MAINTENANCE							
4610 - Extraordinary Maint.	Yes	Yes	Yes	No	Yes	Yes	Yes
4610.1 - Labor	No	34 subaccounts	10 subaccounts	No	Yes	No	Yes
4610.2 - Materials	No	34 subaccounts	10 subaccounts	No	Yes	No	Yes
4610.3 - Contract Costs	No	34 subaccounts	10 subaccounts	No	Yes	No	Yes
4620 - Casualty Losses Non Cap.	Yes	No	Yes	No	Yes	Yes	Yes
4620.1 - Labor	No	No	11 subaccounts	No	Yes	No	Yes
4620.2 - Materials	No	No	11 sub accounts	No	Yes	No	Yes
4620.3 - Contract costs	No	No	11 subaccounts	No	Yes	No	Yes
4620.4 - Proceeds from insurance	No	No	11 subaccounts	No	Yes	No	Yes
OPERATING EXP. FOR PROPERTY							
7540 - Property betterments	Yes	Yes	10 subaccounts	Yes	Yes	Yes	Yes
7540.1 - Labor	No	No	Yes	No	No	No	Yes
7540.2 - Materials	No	No	Yes	No	No	No	Yes
7540.3 - Non expendable equipment	No	No	Yes	No	No	No	Yes
7540.4 - Contract Costs	No	No	Yes	No	No	No	Yes

With respect to breaking out the costs of the system, most agencies are only able to quote a lump sum figure that includes training and implementation as well as the basic automation expenses. About two-thirds of the sites could quote annual maintenance costs, although some sites probably included the maintenance contract cost in the lump sum cost.

One of the research questions concerned scattered-sites and the ability to track their costs in a P-BA system. Almost all of the PHAs have scattered-site units. However, the majority of the P-BA PHAs group their scattered-sites into one cost center or development, and they are accounted for in the same manner as other developments. Two other agencies place their scattered-sites into the geographic cost center most appropriate for the placement of the sites. It was also found that the treatments of developments with mixed uses or building types was not common for this sample. Therefore, no conclusive information can be drawn.

Although budgeting is carried out at the cost center level for the majority of the P-BA sites, it does vary in its degree of agency-wide participation. Two of the medium size PHAs do not have budgeting at the cost center level. One is in the process of implementing P-BA, and one has not implemented P-BA. The newer the P-BA system at the agency, the less likely that it is being used in operational planning. Conversely, one smaller agency that has used P-BA for many years is limited in its application of P-BA to operational planning in that the system seems to flow on its own accord. An agency that does not distribute monthly reports and only adheres to P-BA for financial capacity is lacking in the organizational uses of P-BA. Coincidentally, the Director of Management and Operations at that PHA does not feel that P-BA is useful.

Our experience has confirmed that a general problem with PHAs is limited communication between departments, therefore the finding that P-BA is not used to its full capacity in capital planning is not surprising. Agencies did express interest in further developing a link from P-BA to capital planning. Maintenance departments often use information to some degree in capital planning, but it may not have been portrayed in that manner to other PHA staff, or the other staff were not aware of the capital planning link.

In terms of new operations related to P-BA, most agencies expect to maintain the status quo. The highest degree of activity revolves around new or expanded automation. One agency is completely overhauling their computer system, while the more newly automated agencies are still adding modules. One non-P-BA agency is reorganizing its

management and maintenance operations, as well as upgrading its automation. While the majority of the P-BA sites can provide custom reports to users, such is not the case with every non-P-BA site. All of the large P-BA PHAs have in-house programming capacity, and the only P-BA PHAs that are not equipped to program their reports are two medium agencies. One of these two agencies has a consultant who is employed at the PHA on a regular basis and attends to its programming needs.

Of the P-BA PHAs, the majority are either decentralized or a combination of decentralized and centralized. Only two PHAs are categorized as centralized. All of the non P-BA PHAs are centralized, although one site did show characteristics of both centralized and decentralized. Two of the sites implemented P-BA in conjunction with the transition from centralized operations to decentralized operations. In addition, they received funding from the Target Projects Program and the Public Housing Urban Initiatives Program.

In looking at the methods that PHAs use to account for their P-BA cost centers, accounting for costs by development is the most widely used. Two of the agencies choose not to use developments. One PHA is very large, and staff felt accounting for costs by development would be unwieldy and a logistical nightmare. This large PHA accounts for costs by groups consisting of a certain number of developments clustered geographically. The groups have enabled the PHA to reduce the reporting categories to about 22% of the actual number of developments. The other PHA has clustered its housing into four geographical quadrants and one resident management cost center. This PHA feels that too much detail would be counterproductive for their agency. During the search for P-BA sites, we contacted a PHA which had used P-BA but abandoned it out of frustration with accounting for over 60 developments by discrete project numbers.

Over 50% of the P-BA sites implemented P-BA before automating, but stated that the system functions much more efficiently with automation. Two of the sites installed automation at the same time as implementing P-BA, and two automated first, one without having decided on the implementation of P-BA.

The allocation methodology centers around unit distribution. As discussed in the Guidebook, it is felt that this method does not capture the true picture of the agency. This is one area where the findings of the research point to another course of action. The Guidebook proposes bedroom size as the minimum requirement for allocation of indirect and central office costs.

Five of the six large P-BA PHAs receive monthly reports. The two medium PHAs with emerging P-BA systems do not utilize project reports as of yet, but the Executive Director and Board members receive monthly agency-wide reports with some development breakdowns where available. For non-P-BA PHAs, three receive monthly reports, which are not project-based, two do not receive any type of reports, and one agency distributes reports only to the Executive Director and the Board. Most staff were satisfied with the P-BA reports. There was interest in tailoring information to specific needs, although very few staff have requested new reports. One agency in particular disseminated volumes of information that seemed to obscure the needed information.

All of the P-BA agencies acknowledged that implementing P-BA did not require a reorganization of the agency in and of itself. However, two PHAs reorganized their operations concurrently with the implementation of P-BA. The decisions had been made to reorganize because of internal operational issues, not due to any specific requirements of a P-BA system.

The split on the existence of department-based budgeting at the P-BA sites is about even, with the majority of the large PHAs employing department-based budgeting. One agency had department-based budgeting before project-based budgeting. It is our opinion that department-based budgeting is especially important at agencies that function as housing authorities and redevelopment authorities, in order to organize the different funding sources for accurate reporting and financial control.

As discussed earlier, managers have a varying degree of input into the budgets, with the bottom line being that the budgets must fit within a certain cap determined by budget departments and executive staff. The range of manager input ranges from negligible input, to preparing wish lists, to filling out preprinted PHA budget sheets that represent a reasonably close facsimile to budget needs. Almost all of the managers would like to have more input into the budget and learn how the system works; many are not asked to determine priorities.

Figure 3-2 indicates the variation in account classification structures throughout agencies. The ability to track costs to lower levels of detail enables an agency to have a higher degree of control over the items. The categories that consistently contain the largest number of subaccounts are sundry and maintenance materials and supplies. This should not be surprising in that they are categories that lend themselves to breakdowns, and are items that can be monitored and controlled.

The agency with the largest number (46) of sundry subaccounts is one of the smaller agencies. However, one of the largest agencies consistently employs subaccounts for all classifications, and uses the greatest number of subaccounts overall. It does not follow that P-BA PHAs use subaccounts to a greater extent than non-P-BA PHAs. The lone non-automated PHA does not use as many subaccounts as the automated PHAs. The percentage of PHAs overall which have subaccounts for five or more accounting line items is 67% (10 out of 15 PHAs). The percentage for P-BA sites is 56% (5 out of 9 PHAs), and for non-P-BA sites the percentage is 83% (5 out of 6 PHAs).

OTHER DATA RESEARCHED

The information presented in the Guidebook and Final Report is derived almost exclusively from the site interviews and document collection. However, the topic is so broad as to warrant a study of some existing literature on the subject. The amount of information available on Project-Based Accounting is limited. Most of the PHAs did not possess documentation as to why the change was made, nor did they conduct supporting studies to warrant the implementation of P-BA.

The OKM team did review existing literature on Project-Based Accounting provided by HUD. The information covered the activities associated with the Public Housing Urban Initiatives Grants in the late 1970's. Thirty-four PHAs initially received funding to improve management by implementing P-BB. In 1983, as part of the Public Housing Urban Initiatives Program, a study on Project-Based Budgeting was conducted. A HUD Guidebook, Project-Based Budgeting/Management and Supporting ADP Systems, was produced. The HUD guidebook was directed to the budgeting process and discusses management as an important, though secondary use of the system.

In 1984 the Office of Public and Indian Housing sponsored a symposium on project-based accounting and budgeting. Five PHAs participated along with representatives from nationwide PHA organizations. The notes and discussion papers from the symposium were reviewed by OKM. The focus of project-based activity was shifted from P-BB to P-BA, although these are integrated activities. The major findings from the symposium were: (P-BA was referred to as project-based cost accounting at this symposium)

- Project-based cost accounting is essential; project-based budgeting may or may not be useful depending on the PHA.

- Project-based cost accounting is useful at small PHAs as well as large ones.

- The primary management use of the project-level information developed from project-based cost accounting is to control PHA costs.

- There are no serious impediments to implementing project-based cost accounting, other than those associated with automation.

- Issues associated with automation are the costs involved, and the lack of capacity to assist PHAs in selecting software and vendors.

- Any HUD requests for project-level data should be limited to a sample.

CONCLUSION

This chapter summarizes the research findings generated during the course of the contract. The analysis of the findings provided the information necessary to develop the P-BA Guidebook. The wide range of applications of P-BA at the PHA sites made for a rich discussion of the best methods which provide PHAs with the maximum benefits. Chapter Four offers recommendations and next steps for expanding the use of P-BA in the PHA environment.

CHAPTER FOUR - RECOMMENDATIONS

This chapter discusses the major recommendations that result from the research at both P-BA and non-P-BA sites. The benefits and uses of P-BA are discussed along with various recommendations resulting from the study.

Below is a summary of the major recommendations included in the text of this chapter. The recommendations are the judgments and opinions of the authors, based on the research results and knowledge of the operation of P-BA systems and public housing. They do not necessarily reflect the views of the U.S. Department of Housing and Urban Development.

Recommendations

- It is important that HUD not limit its support of P-BA to promote only the minimum threshold requirements as defined in the Guidebook, but rather to support implementing enhanced P-BA and other significant internal management systems.

- The framework for formulating policy and setting objectives must be built on basic management systems and operating procedures. Unless basic systems and procedures are in place, large housing agencies cannot expect to be able to expand operations. P-BA provides important data which can be used to help set objectives and to monitor agency performance in meeting the objectives.

- Automation or a system upgrade in tandem with implementation of P-BA should be strongly encouraged by HUD. As noted above, implementing P-BA, along with automation or modifications to existing automated systems, enables PHAs to take full advantage of data processing systems capabilities.

- HUD should take particular steps to promote the development and implementation of P-BA systems at large distressed PHAs, but also generally encourage the implementation of P-BA at all PHAs.

- HUD should inform PHAs of the availability and usefulness of the P-BA Guidebook. PHAs should be reminded that the development and installation

expenses of P-BA are an eligible CIAP Management Improvement Program Expense. It is proposed that one method of informing PHAs of P-BA be through the HUD notice covering the procedures for applying for CIAP funds during the upcoming Federal Fiscal Year.

- It is further recommended that the HUD Notice for the CIAP funding round anticipated to occur next year specifically reference Project-Based Accounting Systems and the desirability of PHAs in pursuing the development and installation of these systems.

- PHAs are often being encouraged to develop internal audit programs by IPAs (through audit recommendations), and HUD. HUD should consider recommending P-BA to housing agencies that are taking steps to develop such programs. P-BA can assist in the development of internal audit systems and can help improve the ability of senior PHA management to examine the housing programs they administer.

- The use of P-BA to promote internal controls, quality controls and an internal audit function should be recognized as an important management tool for providing information on public housing operations. Further, it should be noted that P-BA data can be used by HUD Field Office staff when conducting field reviews of PHAs such as in cases where the protocol contained in HUD Handbook 7460.7 REV 1 is used.

- The Memorandum of Agreement (MOA) process is one which can be used by HUD to provide specific direction to troubled PHAs. These PHAs would benefit from the implementation of P-BA and other critical management systems. P-BA systems could be of importance to HUD and PHAs attempting to develop improvement programs to address areas of concerns pertaining to MOAs. The Guidebook should be provided to PHAs and HUD with this potential use identified as one benefit of the P-BA system.

- It is recommended that PHAs be encouraged to undertake a more formalized and structured process to develop and implement a P-BA system, rather than allow haphazard development of the system. A full range of P-BA features are

covered in the Guidebook in conjunction with defined minimum requirements. HUD staff should be informed of this important component of the Guidebook.

- In order to assist in the use of P-BA and to better ensure that it is used effectively by PHAs, it is recommended that HUD staff be trained and fully informed concerning P-BA. In conducting reviews of PHA plans and requests to automate, HUD staff need to be sufficiently informed so as to ascertain whether the PHAs plan to pursue P-BA along with automation. At a minimum, the HUD Field staff could be informed that they can provide the PHA with copies of the P-BA Guidebook for their review and consideration before a PHA implements a new automated system or upgrades an existing system.

- There is a need to assess how HUD and PHAs can use P-BA, along with the products and information generated under this project. P-BA is a way to assist HUD in assessing the resources needed to sustain and protect public housing.

- A high level of effort on the part of HUD staff has been directed toward establishing Allowable Expense Levels (AELs), under the Performance Funding System (PFS) for Resident Management Corporations (RMCs). Project-based accounting systems complement and greatly support this effort. Therefore P-BA should be promoted by HUD as part of the effort to establish public housing resident management .

- The recently authorized Commission on Severely Distressed Public Housing should benefit from the review and analysis of project-level operating and financial information. The P-BA Guidebook should be of assistance in the Commission's effort to assess distressed public housing developments and to develop action plans for eliminating unfit living conditions.

- The use of P-BA generated data may be the most effective way to measure the costs of on-site operating services and changes in expenses in the delivery of services. P-BA could have some use in reviewing PHA "appeals" of PFS Allowable Expense Levels and in the development of Project Financial Forecasts required by HUD to be submitted with CIAP applications.

A P-BA SYSTEM DEFINED

A PHA with P-BA is defined as one which includes an actual set of accounts for tracking project-level expenses and income. A project does not have to be based on a discrete project number, an individual site location, or a subpart of a project or site. For purposes of the P-BA definition developed as part of the research design and data collection plan, a P-BA system could include a cost center established for a reasonable cluster of units or discrete project numbers at a PHA. It is important that a PHA have a sound management basis for establishing cost centers where the cost center is used for purposes of reporting and analyzing key information required for the effective delivery of on-site operating services.

In the research design and data collection plan, a fully operationally P-BA system was defined as one which was used by a PHA as a management tool. The more effectively P-BA was used as a management tool, the stronger the P-BA system was considered to be. If the system incorporated all controllable line items or accounts and covered the entire housing portfolio at a PHA, it was considered a strong management tool.

It was further indicated as a part of the research design and data collection plan that it was important for the PHA to have a well articulated and sound basis for its selection of accounts to be included in the P-BA system. The use of the HUD Chart of Accounts through line 620 on HUD Form 52599 is considered to meet this basic criteria. An important feature that was looked for at the P-BA sites was whether the PHAs reported on financial activity as being direct charged rather than as income or costs allocated in a pro-rata manner. This was especially considered to be important if it reflects transactions which relate to controllable accounts and "subaccounts" controllable by either on-site staff or other staff who have responsibility for on-site management and service delivery.

As a part of the study of controllable line items and the use of subaccounts, some basis was sought at each PHA for the inclusion of income or expense accounts in their P-BA reporting and cost/income analysis process. PHAs were examined to determine whether they could offer an explanation of the allocation for non-controllable expenses and how this allocation related to actual project level activity. Finally, there was an interest in ascertaining whether the financial activity traced through the P-BA system related to the cost centers established by the PHA.

It is important to note that the *existence of an accounting system alone was not to be the only criteria for a P-BA, but rather whether the information was recognized and is used in internal decision making*. A feature that was looked for was non-project specific cost centers, and whether these non-project specific cost centers were used in tandem with project level cost centers to create a more thorough picture of financial activity. The use of well developed cost allocation schemes, and the existence of department or division- based cost centers and budgeting are considered to be important features of a well developed and fully operational P-BA. The use of automation is also considered to be an important element of having the management systems capacity to support a fully developed P-BA system.

One major observation is that P-BA seems to be greatly enhanced as a result of automation. At most every PHA, a P-BA system can be implemented without the use of automated data processing. However, the use of automation greatly assists in the design, development, and implementation of an effective P-BA system. Automation is particularly important if the PHA intends to enhance its P-BA system and wants or needs the flexibility to easily update or upgrade its system. The use of automated data processing applications can dramatically increase the level of detail and the timeliness of information generated through P-BA without increased staff resources being needed.

As a part of the Guidebook, an appendix provides a model Request For Proposals (RFP) to be used by PHAs in obtaining technical assistance to implement a P-BA system. Included is a discussion of the process and components that could be incorporated in a RFP designed to meet the unique needs of a PHA. Common elements to all P-BA systems should be identified for PHAs, but specific and unique items affecting the internal reporting needs, organizational structure, management objectives and capabilities of staff need to be reflected in any RFP to obtain automated Management Information Systems. This is particularly important since OKM has found that some of the "vertical" market software providers in the PHA marketplace tend to have their own RFPs (that may favor the firm which developed them) which are in fact standardized. With its own staff or the aid of a technical assistance provider, a PHA should custom modify any RFP. HUD Field Office staff should be sensitive to this need and support this activity. A discussion pertaining to management needs and requirements follows.

P-BA AND IMPORTANT MANAGEMENT SYSTEMS

The recordkeeping requirements of many PHAs (especially larger agencies) is enormous. Most of the PHAs reviewed consider their basic mission to be the provision of safe and sanitary housing to lower-income family and elderly households First and foremost, it seems that PHAs must take the steps necessary to ensure that essential on-site operating services are provided at the public housing development level -- collection of rents, unit and site maintenance, lease and occupancy management, and management of basic services. In the complex regulatory and social environment of public housing, these basic services must be supported by adequate financial management, information systems, internal controls and other systems and procedures. It is these basic systems needs which have become more complex yet critical to a PHA's operations as the activities of PHAs (very large PHAs in particular) have increased. Any capital and operating service initiatives must be supported by the necessary management systems.

The accounting and other financial management needs of medium and large PHAs can be quite demanding. The staff, materials and equipment can be dispersed over a wide geographic area, especially since new public housing development programs and local preference seem to favor the creation of scattered site public housing for large families. There are a large number of transactions generated, and the use of detailed cost centers can help facilitate improved budget monitoring and expenditure reporting. Some very large PHAs control resources at the level and size of a small bank, yet they do not always have internal controls and information systems to meet that level of activity. Given the reporting issues and monitoring concerns of PHAs as well as the need to maintain public confidence, effective management of resources can at times be more important at a PHA than at privately held companies.

The difficulty in obtaining timely and accurate information has plagued many PHAs and has spurred a number of housing agencies to utilize automated data processing applications. However, the data management requirements of large public housing programs usually require an extensive effort to install a fully integrated data processing system. Integrated systems require that the PHA's operational methods be adapted to support the operation of the systems. All too often, the manual systems of a PHA are operated independently of one another and data is also maintained separately for each program or, in some cases, by function. This limits a PHA's ability to look at overall agency activities or even to assess a single program or housing development. It is important that HUD not limit its support of

P-BA to one which only promotes the minimum threshold requirements as defined in the Guidebook, but rather provides support for implementing enhanced P-BA and other significant management systems.

Many PHAs have experienced difficulties in the installation of data processing systems. Even when a PHA is purchasing a "packaged" system designed to meet its basic requirements, PHAs often find the need to make custom modifications. These "packaged" systems then require detailed specifications of the changes to each application. Further, if PHAs do not have an effective set of manual systems or procedures, or do not adapt them to operate with the automated systems, then there is little likelihood that automation will improve the effectiveness or efficiency of the housing agency. Also, it is important that documentation, operating procedures, and modifications to the software be developed in such a way so as to not diminish the performance or other operating features of the basic and enhanced automated applications.

Compliance and accountability within the organization must be a high priority for public housing providers. Accountability depends upon several things: clear lines of communication, fully defined policies, specific objectives assigned to individual staff and departments, operating procedures, documentation, and reasonably defined training programs P-BA is an important management system which can have a major role in a PHA's efforts to improve financial management and controls. The framework for formulating policy and setting objectives must be based on basic management systems and operating procedures. Unless basic systems and procedures are in place, large housing agencies cannot expect to be able to expand operations, deliver social services, or participate in innovative programs relating to public housing operations without impeding their ability to deliver essential services.

Beyond the levels of service delivery and management systems, organizational controls and supports are necessary to ensure that the agency is achieving its objectives and safeguarding its resources. Given the complexities of its operations and the tremendous expectations on the large PHA, it must have internal controls and audit capacity to ensure that limited resources are used properly and efficiently.

Such internal controls and safeguards are consistent with the other functional aspects of management systems. For example, the establishment of cost centers, department budgets, and project-level budgets enables PHAs to adequately assess expenditure activity and to more easily identify problems and take corrective action. This same information can at

times be used to determine when resources may not be secure and changes in internal control systems and procedures are needed.

P-BA AND AUTOMATION

As indicated above, automation provides an excellent opportunity for PHAs to undertake a number of management changes which can enhance their operations and implement important management systems such as P-BA. In an earlier discussion it was mentioned that the P-BA Guidebook contains an appendix with a model RFP. It is important that PHAs not use the RFP exactly as written, but as a guide in developing their own RFP. Moreover, it is important that PHAs consider accessing technical assistance in developing an RFP that meets their requirements. The second scope of work which pertains to obtaining help in developing a P-BA system should really only be viewed as an illustration of the kinds of services a PHA may wish to consider obtaining, and not one which is applicable to all PHAs.

Even though a P-BA system does not require the use of automation, the utilization of an existing automated system or the implementation of a newly automated system greatly facilitates the use of P-BA. If an appropriate process is followed in the development of an automated MIS, the process can greatly assist the PHA in developing an effective P-BA. This is especially the case if user groups are used in designing a system. PHA staff input at each organizational level should be encouraged in the development and implementation of an automated P-BA system. Overall, automation not only improves the timeliness of information at the project level but also greatly increases the capability of the PHA to track information and to allocate costs. For these reasons, automation or a system upgrade in tandem with implementing P-BA should be encouraged by HUD.

Overall, automation presents one of the greatest opportunities for promoting and implementing P-BA systems. It is the experience of the OKM team that most of the major providers of data processing software offer the capability for PHAs to develop elaborate subaccounts utilizing the existing HUD chart of accounts codes and can use the financial modules to develop cost centers at most every level. Moreover, some applications use "explosion codes" which offer the capability to undertake elaborate and detailed cost allocation methods. There appears to be no reason why PHAs which are contemplating automation or converting to a new system cannot consider the development of P-BA

systems. Moreover, there is likely an opportunity for some PHAs to take steps to utilize the full capabilities of their existing automated systems in developing a P-BA system.

Clearly, the major beneficiaries of P-BA and automation will be medium and large PHAs. Those in the large category will likely already have automated systems in some form. Given that the total number of PHAs in the large and even the medium category is somewhat small when compared to the total of all PHAs, HUD should consider focusing its efforts on promoting P-BA with larger size PHAs. It is recommended therefore that HUD take steps to promote the development and implementation of P-BA systems at larger size PHAs. As stated earlier and worth mentioning again, it is also at larger size PHAs where there is a greater likelihood of automated systems capability which can be used to facilitate the implementation and use of P-BA.

P-BA WITH BUDGET MONITORING AND EXPENDITURE REPORTING CAPABILITY

HUD in the late 1970's and early 1980's took steps through the Public Housing Urban Initiatives Program (PHUIP) to promote Project-Based Budgeting (known as P-BB). Some of the problems that HUD believes had an effect on limiting the success of this program were: (1) there was no guide on how to implement and use P-BB; (2) there were no standards for a P-BB system; and, (3) it was not required that there be an accounting and expenditure reporting component to P-BB. It seems that each of these major impediments have been addressed under the contract to develop a Project-Based Accounting System.

The Guidebook describes a standard system which is to be used as a minimum threshold for P-BA. The minimum is based on the HUD Chart of Accounts and includes all income categories as well as all accounts (and line items) contained on HUD Form 52599 through line 620. This provides a well defined minimum threshold for a P-BA system. However, what cannot necessarily, or at least easily, be specified or required is the in-house use of the system by the PHA. Throughout the project, P-BA has been defined as a system which is designed to be used in decision-making and which under almost any interpretation would include budgeting. Since P-BA is to be operated at the project cost center level, this should mean that P-BA should be used in conjunction with Project-Based Budgeting by the PHA wherever such a link is feasible.

The value of P-BA as a management tool is enhanced by the quality of the data and the timeliness of the data generated through the system. The Guidebook gives a strong emphasis to both required (HUD 52599 format referenced above) and enhanced reporting formats. Reporting on both income and expenses is critical to the development of a P-BA system which is used by PHA staff and is to be perceived as a benefit in promoting improved accountability throughout the organization. The use of strong reporting systems is critical to the success of a budgeting component of P-BA. In essence, P-BA is most effective when there is a decentralized budgeting component to the system, and in turn, P-BB is only sustainable and effective if there is an accounting and reporting system in place to support it.

Given the above, it is recommended that HUD take steps to inform PHAs of the Guidebook, and that the development and implementation of P-BA is an eligible expense of the management improvement component of the Comprehensive Improvement Assistance Program (CIAP). It is further recommended that the HUD Notice for the CIAP funding round anticipated to occur next year, specifically reference Project-Based Accounting Systems and the desirability of PHAs in pursuing the development and installation of these systems. In addition, HUD Field Office staff should be aware of how to review and evaluate any PHA proposals for funding P-BA. It is assumed that Field Offices will be issued copies of the Guidebook so that they can become familiar with the minimum requirements and other aspects of P-BA systems.

INTERNAL AND QUALITY CONTROL

A major area of concern which affects a number of housing agencies is how to promote systems which improve internal controls and afford supervisors a means for undertaking quality control. P-BA systems provide an important mechanism for undertaking activities which promote internal control and quality control In fact, it seems that P-BA can be used in supporting an internal audit function whether such a function is undertaken formally or informally at the PHA.

The development of an internal audit function seems important to many large PHAs and to HUD. IPA auditors are now often recommending that large PHAs institute a formal internal audit program Recent experience by HUD in the area of decontrol and elsewhere has also led to calls for promoting the development of an internal audit function at PHAs.

P-BA data gives many agencies an opportunity to examine, monitor and evaluate activities at the public housing development level. By having a fully operational P-BA system which is used by the PHA and which provides useful information at the public housing or project cost center level, the PHA can facilitate the audit of project-based program activities. Management systems such as P-BA which promote the development of internal audit and improve the ability of senior PHA management to examine the housing programs they administer should be promoted by HUD.

In addition to P-BA being useful in assisting a PHA in undertaking an internal audit function, it is an excellent management tool for maintaining internal control over the operation of public housing. P-BA can provide financial and operational information which helps the agency detect problems in the conduct of its programs. Regular P-BA reporting can be used for purposes of internal control to monitor performance, so that corrective actions can be taken before circumstances become difficult, costly and time consuming to address.

Including a project-level budgeting component with a Project-Based Accounting system will greatly assist an agency in improving its internal controls. To the extent that a PHA can identify activities at the project level and have a system which promotes accountability among staff with project-level responsibilities, it will be easier to maintain a higher level of internal control. For PHAs with decentralized management organizations or with a high level of project activity, the use of P-BA to increase the level of internal control over operations can be of enormous value to the organization.

Another area where P-BA can be of great assistance to a PHA is in the area of quality control. Program quality control is a method that is not often practiced at PHAs, but could be of value to housing organizations involved in the operation of public housing and which could be complemented by a P-BA system. By providing detailed financial and operating information to staff, P-BA is a tool for conducting quality control. Through random sampling, quality control uses less resources to determine program error rates and to identify cost effective verification procedures. The results of quality control sampling are used to determine corrective actions and targets where significant problems are occurring. P-BA can be an important resource for establishing a database to perform quality control for public housing.

The use of P-BA to promote internal controls, quality controls and an internal audit function should be recognized by HUD. Further, it should be noted that P-BA data can be

used by HUD Field Office staff when conducting field reviews of PHAs such as in cases where the protocol contained in HUD Handbook 7460.7 REV 1 is used. In addition, P-BA data can also be used to provide a higher quality of information than is often currently provided with "project financial forecasts" required by HUD of PHAs as a part of the CIAP application submission. An improvement in project financial forecast data could enhance the review of modernization needs by both HUD and PHA staff.

OTHER HUD USES OF P-BA DATA IN EVALUATING PHAS

A number of undertakings in the area of public housing have occurred in recent years which increase the value of using P-BA systems. Some of the more important initiatives consist of the policy and procedures in place for developing Memorandum of Agreements (MOA) with troubled PHAs, which are designed to encourage a PHA to take corrective actions to address problem indicators. As many would recognize, the indicators HUD uses to determine distress are often symptoms of management and other distress which require the implementation of improved management systems. When developing MOAs, HUD takes a much more direct role in working with a PHA to identify actions which can address management concerns and result in improved performance.

The MOA process is one which could be used to provide specific direction to a PHA which would benefit from the implementation of P-BA. The research and experience obtained through this and similar projects seems to indicate that large and troubled PHAs have the most to gain through the implementation of P-BA. Also, many PHAs find that P-BA complements their efforts to report on operational data (i.e. statistics relating to unit conditions, vacancy rate and turnover, etc.) when project-level financial reporting is developed and implemented along with reporting on operational statistics. Therefore, P-BA systems could be of importance to HUD and PHAs attempting to develop improvement programs to address areas of concerns pertaining to MOAs. The Guidebook should be provided to PHAs and HUD with this potential use identified as one benefit of the P-BA system.

Under the 1987 Housing and Community Development Act Congress required that HUD implement an "Appeals Process" which enables PHAs to appeal their Performance Funding System Allowable Expense Levels. It seems the appeals are to be based on changes in operational circumstances which have occurred since establishing a PHA's Base Year Expense Level. The major changes in operating services which are not already

accounted for under other provisions of the PFS will likely effect the level of services required to operate public housing developments. The most effective way to measure the costs of on-site operating services and changes in expenses in the delivery of services is through the use of P-BA systems at PHAs. It is important to note that PFS is a cost-based system and P-BA is the system which tracks costs at the public housing development level.

P-BA is not only an effective method for tracking and assessing cost data; it can also be an effective method for determining the cost elements associated with changes in operating services. This is particularly the case when PHAs use P-BA in conjunction with Project-Based Budgeting. Since it seems that neither HUD nor the Congress have ever fully defined what is the precise level of operating services that PHAs are to provide to public housing developments, the Appeals Process and other steps to assess the costs of appropriate levels of services will likely need to occur using "comparisons". An appropriate method of comparing the costs of project-level services could be through the use of P-BA.

Another initiative included in the Housing and Community Development Act of 1987 pertains to the creation and the provision of direct financial support to Resident Management Corporations (RMCs). A high level of effort on the part of HUD staff has been directed toward creating a process for establishing Allowable Expense Levels (AELs) for RMCs. The process for assessing and assigning the costs of project-level operations is enhanced where a P-BA system is in place and operational at a PHA.

In effect, by separating RMC-managed projects from the other public housing developments, the RMC, HUD and the PHA are taking certain "de facto" steps to institute a P-BA system. Rather than have this process create a partial or less well-defined PHA- wide P-BA by happenstance, it is recommended that the PHA be encouraged to undertake a more formalized and structured process to develop and implement a P-BA system. The implementation of P-BA in these circumstances would likely be facilitated with both financial and technical support in the manner referred to in the above sections of this chapter.

None of the above can occur without effective use of the Guidebook, clear policy directives and training of staff. There is a need to assess how HUD and PHAs can use P-BA and the products and information generated under this project. P-BA is a way to assist HUD in assessing the resources needed to sustain and protect public housing and to help ensure that this valuable national asset is safeguarded. Pending legislation also affords HUD with an opportunity to take steps to put P-BA training and support processes in place before

a national, standard P-BA system could become mandated by statute. The next section covers certain other steps that HUD can consider taking to facilitate this process.

FURTHER STEPS AND INITIATIVES

The use of and understanding of the Guidebook will be one critical element to the successful use of P-BA. The Guidebook, as specified under the contract, is designed primarily for use by PHAs and not necessarily by HUD staff. In order to assist in the use of P-BA and to better ensure that it is used effectively by PHAs, it is recommended that HUD staff be trained and fully informed concerning P-BA. Training in the use of P-BA and even the development of a training guide and materials would be useful. Many PHAs seem interested in the use of P-BA. If assistance, guidance, and support were made available at the Field Office level, it is likely that the use and application of P-BA systems will be more successful. The uses and benefits described in the above sections would be better addressed through training and the development of training materials.

For a number of PHAs, especially larger PHAs, it may be useful and appropriate to request that cost centers be based on a method other than one which is composed entirely of discrete public housing development numbers. Some PHAs may find that certain cost centers would be better based on a cluster of development numbers which relate to groupings defined for public housing management purposes. Further, RMCs that seek to undertake self-management have found, and will likely continue to find, that the "resident communities" they serve will not recognize the boundaries created by HUD's discrete public housing development numbering system. Therefore, guidance and support for the appropriate definition and establishment of cost centers will be needed. The concern is that a lack of flexibility in setting the cost centers will discourage the implementation of P-BA systems. This is due to the assumption that cost centers must equal the discrete public housing development numbers and does not always relate to how the PHAs manage their operations.

A management improvement program such as P-BA would benefit from financial support and encouragement. As has been indicated in an earlier section of this chapter, P-BA is an eligible CIAP management improvement expense as defined by HUD in Handbook 7485.1 REV 4. Moreover, it is an appropriate mechanism for producing realistic and usable project financial forecast reports on HUD Form 52823 which it is understood are submitted to meet requirements in the CIAP legislation. For these and other reasons, it is recommended

that the use of the Guidebook and information concerning the eligibility of P-BA as a CIAP eligible management improvement expense be disseminated by HUD through notice, in particular, the HUD Notice covering the procedures for applying for CIAP funds during the upcoming Federal Fiscal Year.

In the HUD Reform Law passed by the Congress in the Fall of 1989, a Commission on Severely Distressed Public Housing was created. This Commission is intended to identify public housing developments in a severe state of distress, assess strategies for improving conditions in these developments, and develop a national action plan to eliminate unfit living conditions in those projects by the year 2000. Assessing the financial condition and operating characteristics of distressed public housing developments is an important component of determining the causes of distress as well as remedies. It is believed that the use of Project-Based Accounting Systems will greatly assist the Commission and others in assessing important financial and operating characteristics of distressed public housing developments and in developing the action plans required by the Congress. The Congress has recently allocated $2 million to support the work of this Commission. It is proposed that the Commission be encouraged to use P-BA and other project-level data in the review and assessment of public housing.

Finally, as discussed throughout the report, automation appears to greatly limit the cost and increase the capability of PHAs to implement P-BA. Many automation efforts are reviewed and approved by HUD through the operating budget and CIAP management improvement approval process. In conducting their reviews of PHA plans and requests to automate, HUD staff should be sufficiently informed so as to be able to inquire as to whether the PHAs plan to pursue P-BA along with automation. At a minimum, the HUD Field staff could be informed that they can provide the PHA with copies of the P-BA Guidebook for their review and consideration.

APPENDIX A

APPENDIX A

SAMPLE INTERNAL SITE WRITE-UP

REPORT ON DATA COLLECTION AT THE HOUSING AUTHORITY

DATA COLLECTION TEAM:

CONTACT PERSON:

Dates of Interviews at:
PHA Staff Interviewed:
Executive Director
Non-PHA Staff Interviewed
Brief discussions with other staff

DOCUMENTS COLLECTED FROM HOUSING AUTHORITY

Fiscal Management

Organization Chart
Comprehensive Occupancy Plan
Historical data - Anniversary Report
IPA Audit
HUD Management Audit Report
HUD Maintenance Review Report
Materials Requisition

P-BA

Project-Based Budget preparation material sent to housing managers
Department-Based Budget preparation material sent to department heads
The Annual Budget and Management Plan - chapter from the Operations Manual
PBA Monthly Reports - project-based and department based budget versus actuals for current month and year-to-date
Timesheet for maintenance workers
Payroll distribution for administrative staff
Purchase Requisition, Purchase Order, Receiving Memo

Accounting

Chart of Accounts
Accounts Payable Distribution to General Ledger.
Overview of General Ledger package
Statement of Operating Receipts and Expenditures for the Fiscal Year ending

March 31, 1989.
Fixed Asset Printout

Budget

FY1990 Operating Budget
Public Housing development-based budget
Budget Narrative and Flow Chart of System

MIS - P-BA System

Narrative on MIS
Schedule of Hardware Cost, and Software Cost (Totally funded under CIAP Management Improvement)
Schedule of Annual Maintenance Cost (maintenance contract)
RFP For Soliciting Computer system bids (includes references to project-level)

Maintenance and Operations

Narrative on maintenance control documents Maintaining the Development chapter of the Operations Manual and Appendix
Copy of each maintenance form used - Tenant Maintenance Charge, Maintenance and Repair Work Order, Work Order Log Purchase Requisition, Stock Requisition
Development Directory

The following responses answer the 14 research questions.

1. What specific benefits are associated with P-BA, as opposed to consolidated accounting?

It seems that staff are all supportive of project-based-budgeting and accounting. Enthusiasm for department-based budgeting and accounting is very mixed.

HUD Staff:

P-BA gives an understanding of individual costs per development. It is a helpful tool for planning for next year, to know what is going on at each specific development.

Chief Financial Officer (Director of Fiscal Affairs):

P-BA provides detail for analyzing problem areas.

Executive Director:

P-BA forces considerations about staffing that take specific projects into account. Because of P-BA we tend to think of distributing things based on characteristics of each development, such as number of units, size of grounds, etc. It enables me to fix accountability and responsibility on the Project Manager.

Budget Staff (Assistant Director of Fiscal Affairs):

P-BA provides information used in preparing fiscal year budgets.

Director of Accounting:

P-BA tells you where your weaknesses are, if you are meeting your goals (as developed in the budget planning process), tells you who is doing what - provides accountability. Project Managers are concerned about costs.

Deputy Director for Fiscal Affairs:

Budgeting is an important planning discipline. Housing Managers have to anticipate what they will need. Housing Managers learn what they are spending, and on what they are spending. P-BA information eliminates the "unknown variable" in the next round of budgeting.

Housing Managers:

Budget process benefits from project-level input because field staff are more familiar with what needs to be done at the project They see the physical problems and receive tenant complaints. Because they prepare and get an approved budget with specific amounts and specific non-routine items at the beginning of the fiscal year, they feel like they have control and do not have to ask the central office for every individual thing. P-BA information helps in planning and prioritizing for the coming fiscal year. Budgeting makes managers develop goals for their project. The P-BA reports help them to see if they are going under or over their budgets; whether they need to slow down or speed up. "The budget is the most important thing that the Manager does. If you don't get it right, you miss it for the year".

Director of Management:

P-BA forces managers to plan. It allows for comparisons of managers' performance. Project-level data is useful in dealing with tenant councils; for example, to show how vandalism hurts. The budget preparation process is used as a "mini-mod" planning process for non-routine maintenance. P-BA information shows managers what they said they would do during the fiscal year vs. what they have actually done.

Department Head:

"It would be very difficult to function without knowing department-based information." P-BA helps to monitor expenses.

2. Since P-BA is not required of PHA's, why did certain PHA's convert from consolidated to P-BA?

PHA started P-BA in 1977. Therefore, only those staff persons who were at the PHA at that time felt comfortable discussing why PHA converted to P-BB/P-BA.

Executive Director:

P-BB/P-BA occurred out of need The PHA was having operating problems. Rent collection was bad and centralized maintenance services were not working. The PHA developed the notion of decentralizing operations to respond to the operating problems it was having. Originally P-BA and P-BB were done manually. P-BB and PHA automation were two separate tracks, which eventually came together.

3. What significant differences exist among installed P-BA systems? How do these differences affect the operation of P-BA?

The options available to a PHA vary widely for hardware and software. PHA felt more comfortable with hardware from a company that was geographically close. Every interviewee with whom this issue was discussed agreed that the most important characteristic of the automated system is the degree of responsiveness and assistance provided by the software company. They selected a PHA packaged software system which is installed on computer hardware manufactured and serviced locally.

Director of Fiscal Affairs:

Another firm appeared to have better software, but the PHA references all complained about relations with the firm and the lack of "customizing".

Executive Director: -

The PHA selected software that they felt was "straight forward" and "user friendly." They chose a less sophisticated system; one with less "spiffy" reports and fewer capabilities. They wanted to make sure that the staff would be comfortable in using it, experimenting with it, and maximizing the system's capabilities.

4. What differences exist between the operations of consolidated and P-BA systems, and what effect do these differences have on PHA administration.

Decentralized Operations:

Some degree of decentralization is likely to be necessary to maximize the use of P-BA information. Although PHA considers itself to have decentralized management, Senior staff recognize that they are not completely decentralized, and they do not want to be completely decentralized.

Executive Director:

Strict adherence to P-BB (P-BA) for the entire organization can be a problem if you want to slide somebody around as needs change. P-BB can get a little cumbersome with lots of paper and forms. There should be a contingency - a 10% "fudge factor" to spread costs to deal with problems that don't lend themselves to a project basis. The PHA does not want to be tied to standards such as the correct number of maintenance staff per unit. Some projects need more help because of vandalism, etc. P-BA does not account well for extraordinary and emergency situations.

Decentralized Project Management:

Project management is not fully decentralized. For example, while non-skilled and semi-skilled maintenance staff are assigned on a project level, and controlled by the Housing Manager, all skilled trades are assigned to, and deployed from one central office. Projects are not charged for any maintenance labor or administrative salaries, so P-BA reports show no costs for project staff.

Decentralized Department Management:

The Executive Director is not very supportive of Department-based budgeting and accounting. The Director of finance believes that without "top down" support, department-based budgeting and accounting will be fairly useless.

Staff skill levels:

PHA project Managers need to be able to manage both administrative and maintenance functions. They collect rent, enforce the lease, and oversee all general clean-up and non-trades maintenance of the project.

Accounting Systems and Documents:

All of the PHA documents that contain information that is entered into the accounting system require identification of the project. These documents include time sheets, work orders, purchase requisitions, stock requisitions, etc. All information entered into the accounting system is coded by project When the PHA selected its computer system, it required vendors to provide an accounting system that could provide for project-level accounting. The development of P-BA reports has been gradual. First they were done manually, then on a PC, and now finally on the authority-wide computer. The chart of accounts for each project is almost the same as the chart of accounts for the PHA as whole. Accounts can be broken down into finer detail, if someone requests it.

Manager of Accounting:

A project's chart of accounts is almost a mirror image of the HUD Chart of Accounts. The first four digits are based on HUD numbers. Additional numbers can give further breakdown. For example, if someone wanted a breakdown of sundry expenses they would refer to account number 419090.

Quality Control:

Fiscal staff review of expense data, and review by project managers and department heads, provide for quality control. The Director of Management and some Housing Managers review the P-BA reports, and ask accounting to provide an analysis of certain expenditures that seem to be wrong from the Housing Manager's perspective.

Director of Fiscal Affairs:

Most items go through an arduous review process before they enter the accounting system. On a monthly basis, she reviews actuals vs. budget to locate any gross over expenditures. All gross over expenditures are analyzed. On a quarterly basis, she and the Executive Director, with help from the Manager of Accounting, conduct a "high level scrutiny" of actual vs. budget discrepancies, and where needed, analyze every charge to the project.

Assistant Director of Fiscal Affairs:

She reviews all Project P-BA reports before she sends them. Where she sees problems, she highlights them in a transmittal to the Director of Management.

Housing Managers:

Use the monthly P-BA report to keep track of materials and supplies and extraordinary maintenance

Director of Maintenance:

He holds monthly meetings with each Manager. They discuss the P-BA report at those meetings.

5. What cost elements must be accounted for at the project level to provide a true picture of the cost of operating a project?

Costs charged to projects: PHA staff had various complaints about the content and timeliness of P-BA reports that affect how well the PHA can maximize the benefits of P-BA. Several people make concrete suggestions for what kind of information they need and in what format they would like it. Interestingly, they all said that they had never made these suggestions to anyone at the PHA.

All staff agree that only items which fit into one of the following two categories should be included in the project budget and charged to the project through P-BA

A. Items over which Housing Managers have control - they supervise the staff responsible for the items (such as utilities labor, maintenance labor) and they are the approval signature on all purchases of materials, supplies, and services.

B. Items over which the Housing Manager does not have control, but which can be charged to the project based on the actual services provided to the project.

Capital Budgeting:

Even though each Housing Manager has a copy of their CIAP budget, and informal discussions arise between Fiscal, Management, and Planning regarding specific capital work, there is no standard procedure to ensure input from Planning staff in the development of project level budgets. Staff would like to see more connection between P-BB/PBA and CIAP.

Director of Fiscal Affairs:

There needs to be a preliminary review between the Fiscal Department and the Planning Department to see where money is available for certain types of work, during the preparation of project budgets. Discussions happen informally now, but she would like to have a formal process for determining how to fund extraordinary maintenance vs. CIAP items

Executive Director:

He believes that P-BB/P-BA will be very important in capital planning if HUD institutes a formula method for distributing CIAP funding to PHAs.

Accounting for other programs:

PHA treats all of its conventional public housing projects the same for P-BA purposes, whether the projects are federally or state-subsidized. Since the state does not require project-based accounting, the HUD chart of accounts forms the basis for accounts for all projects - state and federal. No programs other than conventional public housing are accounted for through the P-BA system.

6. How should costs be allocated when they cannot be broken down at the project level.

PHA does not charge any "shared" costs to the projects. Even though Housing Managers and non-trades maintenance staff are specifically assigned to a project (or more than one project) the PHA does not charge the project for these staff.

7. How should central office costs be accounted for in a P-BA system?

Information on central office costs is of no use to Housing Managers. HUD needs to determine what the real purpose of P-BA is. If it is to improve on-site management and accountability, then it does not make sense to charge the project with an allocation of central office costs. It would make more sense to establish a "central office cost center", just as each project is a cost center. If HUD wanted to allocate total PHA costs to each project, they could prorate the costs in the central office cost center on a per unit basis and add them to the project's own cost center information.

8. How should "project-level" costs for scattered site units be accounted for in a P-BA system?

PHA has a single ACC for scattered site units that are grouped in three locations throughout the City. Since the three sub-groups are geographically dispersed, they have separate Housing Managers and staff. In order to account for the costs separately, PHA altered the project numbers to 3-14-01, 3-14-02, and 3-14-03. They can then "roll up" the three sub-groups to look at 3-14 as a whole if they ever wanted to.

9. How should a Project-Based Accounting System account for "project level" costs for developments which contain more than one housing type, such as high-rise elderly buildings and low-rise family at the same site?

PHA has one project with different structural types, although not different tenant types. One project is mostly 3-story walk-up buildings, but has one 6 story elevator building. It treats both buildings as one cost center. It would be helpful if the P-BA report broke down maintenance contract costs so that elevator contract costs could be analyzed separately.

10. What project-level reports should the P-BA be capable of producing?

PHA staff have definite suggestions for additional (or more detailed) P-BA information, and for how they would use the information. In addition to the suggestions listed below, it should be noted that the Director of Fiscal Affairs, the Director of Management, and the Executive Director all review the project T.A R. reports in detail, so any P-BA system should be able to produce T.A.R. reports quickly.

Housing Managers: They would like the following project-based information:

- a monthly breakdown of the expense that appears under extraordinary maintenance - a specific list of items.
- a year-end report or materials and supplies expenditures by vendor or by category (such as paint supplies)
- a year-end report of all costs (by category) charged on stock requisitions
  a monthly report on maintenance contract costs - broken down by type of maintenance contract

Other information they would like includes:

- a "catalog" of how much stock items cost. Ninety (90) percent of materials and supplies are taken out of stock, but when they are ordering them, they don't know how much they are spending.

Director of Management:

He would like to know how much skilled trades time is spent at each project. He would like this information broken down by trade. He also wants to see maintenance labor overtime budgeted separately from regular maintenance labor, and reported on separately, by labor category.

Department Head:

She would like some guidelines about where to charge things. For example, she doesn't understand the difference between Office Supplies/Sundry and Supplies/Materials.

Director of Fiscal Affairs:

She would like to use project-based utilities cost data to monitor the performance of consumption and conservation efforts.

11. What PHA-level reports should the P-BA system be capable of producing.

The Director of Management said that he would like to have a report on maintenance overtime (separate from maintenance labor), both at the project level and PHA-wide. The HUD-52559 does not provides for this type of detail. The HUD chart of accounts does provide for this level of detail in 4410.35 and 4410.36.

12. What is the estimated cost of converting from a consolidated accounting system to a P-BA system?

PHA developed Project-based-budgeting before project-based accounting. P-BA was developed gradually - first manually, then on a PC, and finally tied into the automated general ledger. The PHA feels it is impossible to separate out the cost of the P-BA capabilities of the PHA's computer system from all other costs of the computer system.

P-BB and P-BA were simply learned "on the job". (The Executive Director thought that some training may have come with the Urban Initiatives Grant, but he wasn't sure). PHA's Operations Manual includes a whole chapter on preparing the budget, and the Fiscal Department sends budget preparation packets to managers each year. With the new computer system, PHA purchased a specific number of hours of help, but people just learned to use the system, with little help needed from the computer vendor other than for programming.

13. What is the cost of administering a Project-Based Accounting System, in contrast with a consolidated accounting system?

PHA staff had a lot of trouble answering this question. They could not quantify the cost. Several people agreed that while more staff time is needed to review reports for each

project, a great deal of time is saved when fiscal staff need to analyze an account. They can restrict their research to a specific project. They also believe that they save money by being more aware of what is occurring at each individual development.

The annual cost of maintaining the computer system, which includes P-BA capabilities is:

Annual maintenance contract on the hardware:	$16,308
Annual maintenance contract on the operating system:	$ 2,076
Annual maintenance contract on the software:	$ 5,720

14. What procedures and criteria should be used in evaluating proposals to install a Project-Based Accounting System?

PHA established a committee of representatives from each department to discuss what they need from a new computer system. They hired a consultant to help them develop a RFP. The consultant also helped them review the vendor proposals. The committee called and visited numerous PHA's to find out how happy they were with their installed systems.

Director of Fiscal Affairs:

She was part of a selection and criteria committee which had a bottom line of how much they could spend through CIAP. They defined the needs of the PHA and did an RFP inviting vendors to propose how they would meet the PHA's needs. The selection decision was "software driven" They selected the software they wanted and then looked at the hardware that would run it Committee members made lots of phone calls to PHAs to get references on various packages The committee narrowed their choices down to three and then made site visits to PHAs to ask: How well does the system meet your needs? How responsive is the vendor? One vendor appeared to have had better software but reference PHAs all complained about relations with the vendor, improper sizing, and reluctance to do any customizing for the PHA. PHA's had harmonious and supportive relations with another vendor, and this vendor would customize for the PHAs.

Executive Director:

He felt more comfortable with a product manufactured close by. The software vendor seemed straight forward and user friendly. He wanted staff to be comfortable in using, experimenting with, and maximizing use of the computer.

APPENDIX B

APPENDIX B

FINAL GUIDEBOOK OUTLINE

PREFACE

CHAPTER ONE: INTRODUCTION TO PROJECT-BASED ACCOUNTING

Introduction
What is project-based accounting?
Management uses of project-based accounting?
What types of PHAs will benefit most from P-BA?
Contents of Guidebook
Summary

CHAPTER TWO: MINIMUM REQUIREMENTS FOR A STANDARD PROJECT-BASED ACCOUNTING SYSTEM FOR PUBLIC HOUSING

Introduction
Minimum reporting requirements
Minimum requirements for accounts to be included in a P-BA system
Cost allocation and distribution of income and expenses
Summary

CHAPTER THREE· ENHANCEMENTS TO A P-BA SYSTEM WHICH SUPPORTS INTERNAL MANAGEMENT NEEDS

Introduction
Design and development of cost centers
Enhancements to accounts which can be controlled at the project-level
Cost allocation decisions under project-based accounting
Enhanced reporting capabilities of a P-BA system
Project-based budgeting
Summary

CHAPTER FOUR: THE PROCESS FOR DESIGNING, IMPLEMENTING AND MAINTAINING A PROJECT-BASED ACCOUNTING SYSTEM

Step 1: Define the process and goals
Step 2: Define the roles of key parties in the process
Step 3: Examine the current system and need for management changes
Step 4: Develop system specifications
Step 5: Develop a request for proposals
Step 6: Selecting the system
Step 7: Install the System
System evaluation and maintenance

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