A Report by a Panel of the

NATIONAL ACADEMY OF PUBLIC ADMINISTRATION

for Congress and the Department of Housing and Urban Development

ALIGNING RESOURCES AND PRIORITIES AT HUD: DESIGNING A RESOURCE MANAGEMENT SYSTEM

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The views expressed in this document are those of the panel alone. They do not necessarily reflect the views of the Academy as an institution.

* The Academy panel and staff note the outstanding contribution of Gregory J. Ahart to this report as well as numerous others over the past twelve years. Greg died March 11, 1999. He is missed.

FOREWORD

During the1990's, the Department of Housing and Urban Development (HUD) has faced many challenges related to its human resources. Personnel reductions have decreased HUD's staff levels from over 13,000 in the early 90's to just over 9,000 currently. The department has taken a number of steps to deal with these changes including reassessing and better expressing its mission, goals and objectives through the Government Performance and Results Act processes and plans, and changing many of its work methods and locations. A primary challenge throughout these efforts has been the lack of analytically based data on which to accurately determine resource needs in relation to program requirements.

When Congress asked that the National Academy of Public Administration to evaluate selected departmental management systems, including the ability to develop personnel requirements based on meaningful measures, the Academy panel determined that the most effective approach would be to work in partnership with the department. HUD embraced this approach and established an Advisory Group to assist the Academy panel in designing and testing a methodology that would permit HUD to define the type and amount of work done and estimate the resources needed to accomplish it.

The Academy team and HUD proceeded through a design phase and conducted the demonstration of a resource estimation approach in two HUD field offices and their respective headquarters components. HUD staff worked diligently, sometimes using personal time to complete work that accumulated while they participated in the demonstration. The strong partnership that evolved would not have been possible without the dedication of many staff, especially those in the Office of Budget.

HUD has made a strong commitment to adopt and implement the proposed resource management system departmentwide. When this is accomplished, the Academy panel believes that Congress will have the information it needs to determine whether HUD's resource requests are sufficient to fulfill departmental program requirements and play a strong role in meeting the nation's housing and community development needs.

R. Scott Fosler
President

PANEL MESSAGE

Federal departments and agencies are familiar with terms such *as downsize, rightsize, outsource,* and *privatize,* and the Department of Housing and Urban Development (HUD) is no exception. Its workforce has decreased from 13,298 to 9,944 in the past decade.

The department was able to take advantage of technology to do some of its work more efficiently and the mortgage industry has assumed large portions of its insurance-related workload. However, many of HUD's staff reductions over the past decade were not accompanied by any reduction or consolidation of the programs they administered, and were underway before the department changed some work methods and completed important internal restructuring. HUD decided not to close offices or make directed staff reassignments and, for the short term, this is understandable. However, this decision has led to reduction-by-attrition with limited ability to adjust staff capability, as needed, in some offices.

As HUD proceeded with its most recent restructuring – Management Reform Plan 2020 -- and dramatically changed some work processes, it did not have the benefit of a resource management system to define the work to be done, estimate and allocate resources needed to accomplish it, or help top management set priorities as to which work gets emphasized and which does not when there is not a match between resources and work. The absence of a task-based resource estimation process limits a department's capability to be aware of work that may be slighted because there are simply not enough hours in the day to do all that should be done.

The absence of this capability also concerned Congress, who requested that the National Academy of Public Administration examine HUD's practices for estimating human resource needs as part of a broader study, which also reviewed procurement practices and compliance with the Government Performance and Results Act (GPRA). The panel believes that Congress' requirements expressed through GPRA have created an additional incentive to develop a resource management system, and Congress' concerns about HUD's inability to present a stronger basis for its proposed resource levels should be answered. HUD needs a system that can provide meaningful information with a relatively low burden on staff to maintain it. When this happens, HUD will have a strong management tool. However, achieving it will take a serious and sustained commitment.

The panel believes that HUD should:

- Adopt the resource management approach demonstrated during this project, one that bases estimates and allocations on the level of work and where it is to be performed.

- Include all departmental responsibilities in the work definition and resource estimation system.

- Identify what work can be done with current human resource levels and what tasks must be done less often, not done, or contracted out if they are to be accomplished.

- Include a resource validation component that accurately measures what staff do.

Defining work and estimating needed resources will be time-consuming, especially the first year when the process is unfamiliar to most staff. HUD management should recognize that developing and implementing a departmentwide system will take time away from HUD's programmatic work and add work for program and central office staffs. As it evaluates the resources needed to implement the system, HUD may see a need to supplement on-board staff in the short term.

While there may be substantial short-term costs to develop the system and longer-term expenses associated with maintaining it, there will be significant long-term benefits in addition to the capacity to accurately estimate resource requirements. These include:

- A clearer picture of how work is accomplished under MRP 2020, including efficiencies gained to date and others expected to arise from consolidating some types of work into centers and opportunities for reengineering some work processes.

- Better information on work and staff distribution, which will permit the most effective deployment of staff throughout the department.

- A stronger ability to assess how new factors, such as changes in mortgage interest rates or an expanded homeless program, affect its workload and workforce.

- Added capacity to express the relationship between HUD's stated goals and objectives and its resource needs.

The Academy panel believes that the secretary should announce and play a highly visible role in implementing a resource management system, specify the roles of individuals and offices, and be an active supporter of the process. With the secretary's support and adequate resources to develop and maintain a departmentwide resource management system, HUD will have the tools it needs to systematically justify and effectively allocate the resources required to achieve its important mission.

LIST OF ACRONYMS

BOP	Business and Operating Plan
CAT	Change Agent Team
CPD	Office of Community Planning and Development
FHA	Federal Housing Administration
FHEO	Office of Fair Housing and Equal Opportunity
FTE	Full-time equivalents
GAO	General Accounting Office
HOC	Homeownership Center
HUD	Department of Housing and Urban Development
IG	Inspector General
MRP	Management Reform Plan
NPR	National Performance Review
OB	Office of Budget
ODOC	Office of Departmental Operations and Coordination
PUD	Processing and Underwriting Division
REAP	Resource Estimation and Allocation Process
SF	Single Family
SNAPS	Special Needs Assistance Programs
REG	Resource Estimation Group
WDG	Work Definition Group

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CHAPTER ONE
STAFFING AND THE BROADER ENVIRONMENT

Federal departments and agencies are familiar with terms such *as downsize, rightsize, outsource,* and *privatize,* and the Department of Housing and Urban Development (HUD) is no exception. Table 1-1 gives a long-term history of HUD's workforce (expressed as full-time equivalents or FTEs). It shows that staff levels fell from about 17,500 in 1980[1] to 10,600 at the end of fiscal year 1997. During the same period, the number of programs HUD managed grew five-fold.[2] However, the real estate industry began processing mortgage insurance (called direct endorsement), which reduced HUD's workload substantially in this area. HUD also contracted out more of its work.

Table 1-1
Comparing Numbers of HUD Programs and Full-time Equivalent Positions
1980-1999

Year	Programs*	FTE Positions**	Ratio of staff per program
1980	54	17,457	326:1
1982		14,720	
1984		12,516	
1986		11,758	
1988		13,023	
1990		13,298	
1992		14,073	
1994	206	13,068	64:1
1996		11,399	
1998	283	9,846	35:1
1999		9,944	

* Because HUD does not maintain a comprehensive inventory of all programs, program numbers are not available for every year. In addition, the Academy can only be certain of the comprehensive nature of the numbers it generated in 1994 and 1998. Other numbers are from HUD budget documents or historical references, and the basis of their calculation is not available.
** Includes staff of the Offices of Inspector General and the Federal Housing Enterprise Oversight as well as those covered by the Working Capital Fund. Does not include overtime allocations.

HUD's ACTIONS ON 1994 ACADEMY PANEL'S RECOMMENDATIONS

The National Academy of Public Administration (the Academy) has examined federal management throughout the past 30 years, and several of these studies have pertained to HUD. Congress previously asked the Academy to analyze HUD activities. In 1994, the Academy issued *Renewing HUD: a Long-Term Agenda for Effective Performance*.[3] At that time, the appropriations committees were concerned about "HUD's ability to carry out its mission efficiently and effectively, including its ability to estimate and effectively allocate staff, monitor potential financial obligations and program performance, and give appropriate priority to the mainline housing and community development programs."[4]

In the 1994 study, an Academy panel examined HUD's resource estimation and allocation systems and found that HUD's resource allocation system did not directly provide information on what work should be done or on staff requirements. The Academy panel recommended that HUD continue efforts to develop a comprehensive and effective resource management process and outlined features such a process should include. The panel also recommended that until better alternatives could be developed to provide historical resource utilization information to aid in resource management determinations, HUD should retain it existing field employee time reporting system (ETRS) and resource allocation guidelines system (RAGS). These systems were abolished in 1995.

In its 1997 *HUD 2020 Management Reform Plan* (*HUD 2020 MRP*), HUD announced that it would "implement a Resource Estimation and Allocation Process (REAP) that will link resources to results as required by the Government Performance and Results Act (GPRA). The fiscal year 1999 call for budget estimates and legislative proposals will incorporate this new process."[5] This Academy study has developed and tested a pilot methodology that could make the goals for REAP a reality.

STUDY METHODOLOGY

Because of its concern with HUD's resource estimation capability, Congress asked the Academy to examine how the department developed personnel needs based on meaningful measures. In the Conference Report on the Disaster Relief Supplemental Appropriation Bill for fiscal 1997, Congress asked the Academy to conduct a study of HUD's procurement activities and practices for estimating human resource needs.[6] The conference report on the fiscal 1998 appropriation bill increased the scope of the study to include a review of HUD's compliance with GPRA.[7] This work was done under one project umbrella.

To conduct the current study, the Academy created a panel of experts to guide the project and develop recommendations for HUD. A list of Academy panelists and staff is in Appendix 1. On the panel's behalf, Academy staff conducted, in late 1997 and early 1998, a preliminary review phase to help define the scope of the project. In the resource estimation arena, the premise was that there would never be enough resources to accomplish all that could or should be done for fully effective HUD program operations and management. The focus was to be on demonstrating how HUD should inventory and set priorities for functions and activities to provide a defensible basis to request reasonable resource levels, allocate scarce resources among competing needs, and justify budget requests. The assessment was to encompass all HUD work, whether done by HUD staff or contract providers.

During the preliminary phase, the Academy staff updated its 1994 inventory of HUD programs that could serve as the basis to tie HUD resource needs to the department's programs. Appendix 2 has more information on HUD's programs. While always important, the relationship between program requirements and an agency's budget is an even stronger one since GPRA's passage. Academy staff also reviewed recent efforts or studies that related to resource management at HUD. These included internal documents as well as reports by the General Accounting Office (GAO) and private-sector firms.

Academy staff interviewed HUD staff in headquarters and field locations to determine how resources were estimated and allocated in the various HUD offices. This was important, because when HUD discontinued RAGS and ETRS, the assistant secretaries developed their own approaches to estimation and allocation, with emphasis on the latter.

The Academy panel met in December 1997 and again in January 1998 to discuss the work of the preliminary phase. The panel stressed that the work in the resource estimation area should not question a given staffing level the secretary had proposed, and strongly endorsed the concept that HUD had to be a partner in developing and demonstrating a proposed estimation methodology. At additional meetings in 1998 and 1999, the panel reviewed plans to develop and demonstrate a method to estimate resources, reviewed the results of pilot demonstrations, and developed its formal recommendations for HUD.

Designing and Implementing the Demonstration Approach

The April 1998 contract called for the Academy to:

- develop criteria to guide the development and demonstration of a resource estimation approach for HUD
- examine approaches to resource estimation and allocation used in two or three other federal departments or agencies and share the information with HUD staff
- develop and demonstrate, with HUD participation, an approach for resource estimation and allocation.

HUD committed to having appropriate headquarters and field staff work with the Academy first to design and then to demonstrate the approach. Staff in selected program/functional area(s) were to:

- identify the salient functions/tasks/activities in the demonstration areas(s)
- assess their relative priorities
- make technical judgments as to the level of resources required for their accomplishment

The final report was to include the resource estimation methodology, results of the demonstration, and the documentation developed during the demonstration. The demonstration approach, process, and results are discussed more in Chapters Three and Four.

Key to the process was an Advisory Group consisting of HUD headquarters and field staff. Staff of HUD's Office of Budget (OB) served on the Advisory Group and worked directly with Academy staff. Also, the study would not have been possible without the full cooperation and hard work of staff in the units selected for the demonstration. They were HUD's Community Planning and Development (CPD) office in Philadelphia and the Processing and Underwriting Division (PUD) in the Denver Homeownership Center (HOC), as well as the respective headquarters groups that worked with these field organizations.

ROAD MAP TO THE REPORT

This report is one of three issued in conjunction with the 1997-99 Academy work.[8] It discusses HUD's ability to accurately estimate the resources it needs to do its work, and presents a methodology HUD could use to develop reliable estimates.

Chapter Two places resource estimation in the context of *HUD 2020 MRP's* administrative and management reforms. It also describes HUD's past resource management systems and how the major HUD program offices have allocated staff during the past four years.

Chapter Three describes how the Academy and HUD staff developed a proposed resource estimation methodology. It elaborates on the research Academy staff did on other agencies' approaches, more fully describes the work of the HUD Advisory Group, and explains the criteria the group developed for effective systems and conduct of the demonstration.

Chapter Four presents the framework for the resource estimation model. It also describes the demonstration itself and changes made to the methodology based on what was learned.

Chapter Five recommends steps HUD can take to make the demonstrated methodology a reality, and stresses the importance of top-level leadership to ensure this is done. It also presents the panel's recommendations and discusses the nature of the investment HUD needs to make if it wants an accurate assessment of the resources needed to accomplish its mission.

Endnotes to Chapter One

[1] National Academy of Public Administration, *Renewing HUD: a Long-Term Agenda for Effective Performance*, 141.

[2] There are many different ways to count HUD programs. During its 1994 study, the Academy tabulated 206 programs that were mentioned in a particular piece of legislation and an additional 43 that were operated at secretary discretion, some of these in response to congressional interest. Of these, HUD classified 160 as "active" programs that were still awarding grants or writing new insurance. However, even inactive programs can require staff time.

[3] National Academy of Public Administration. *Renewing HUD: A Long-Term Agenda for Effective Performance* (Washington, DC: National Academy of Public Administration, 1994).

[4] National Academy of Public Administration. *Summary Report*. *Renewing HUD: A Long-Term Agenda for Effective Performance* (Washington, DC: National Academy of Public Administration, 1994). iii.

[5] U.S. Department of Housing and Urban Development, *HUD 2020 Management Reform Plan* (Washington, DC: Department of Housing and Urban Development, March 1997), 93.

[6] Congress mandated this work in Public Law 105-18, The 1997 Emergency Supplemental Appropriations Act for Recovery from Natural Disasters, and for Overseas Peacekeeping Efforts, Including those in Bosnia. The law itself refers only to awarding a contract to the National Academy for Public Administration "for an evaluation of the Department of Housing and Urban Development's management systems." The accompanying conference report (House Conference Report 105-119, p. 112, June 14, 1997) says that the Academy will "review HUD's contracting procedures, basic administrative organization, and the development of personnel needs based on meaningful measures."

[7] Congress broadened the project scope in Public Law 105-65, The Departments of Veterans Affairs and Housing and Urban Development, and Independent Agencies Appropriations Act, 1998. That law's conference report (No. 105-927, October 6, 1997) referred to "management systems and processes" and said that the Academy should also look at "HUD's compliance with the Government Performance and Results Act." The conference report further noted that GAO and the HUD Inspector General were reviewing HUD's contracting requirements and implementation, and the conferees did not intend for NAPA to duplicate their work.

[8] The two other Academy reports were: *HUD Procurement Reform: Substantial Progress Underway*, (April 1999) and *GPRA in HUD: Changes for the Better* (July 1999).

CHAPTER TWO
THE CONTEXT FOR RESOURCE ESTIMATION AND ALLOCATION

In September 1993, as the previous Academy panel began its work, the National Performance Review (NPR), after conferring with HUD, called for streamlining HUD by eliminating regional offices and reducing the workforce to about 11,500 FTEs by 1999. HUD was able to delay the staff reductions by arguing that it wanted to stabilize staffing at 1995 levels (up slightly from 1994 levels) and apply the resources it expected to save from the planned streamlining initiatives to improve service delivery and reduce HUD's exposure to potential financial loss.

However, in late 1994, Secretary Cisneros announced another goal--to reduce staff levels to 7,500 by 2000 -- and included this goal in HUD's March 1995 *Reinvention Blueprint*.[1] This staff level was deemed achievable if Congress passed proposed legislation to consolidate HUD's programs and streamline the department. HUD proposed to use a phased approach to consolidate 60 major programs into three "performance-based accounts"—a Community Opportunity Fund, an Affordable Housing Fund, and the Housing Certificates Fund. The Blueprint also proposed transforming the Federal Housing Administration (FHA) into a government corporation,[2] streamlining HUD program operations throughout the department, establishing three administrative service centers rather than having these tasks performed in every field office, and reducing the number of field offices to 60. The Blueprint saw "reductions in staffing [as a] logical consequence of these consolidations."

In conjunction with its fiscal year 1996 appropriations, the department stated, in reference to the program consolidation proposals included in its Reinvention Blueprint that, "Without enactment of most of these proposals, reduction to 7,500 FTEs will cripple HUD's operations." Congress has not enacted most of these proposals and most of the other initiatives are in various stages of development and/or implementation. While HUD has consolidated may functions (such as single family loan processing and public housing inspections) into a few centers, it continues to maintain 81 field offices. However, many are smaller than they were in the early 1990s.

RECENT REFORMS AND THEIR RELATIONSHIPS TO STAFFING

When Andrew Cuomo became secretary of the department in 1997, among his goals were to improve how HUD did its work, an objective the department could achieve without statutory changes, and to realign HUD's structure to become a "right-side up, community-first" Cabinet agency. To achieve these goals, he recognized the importance of involving staff at all levels in developing an agenda for change.

In February 1997, the secretary planned a retreat of principal staff. While some of the topics dealt with broad issues of program delivery, much time was spent on management subjects, such as financial systems integration and downsizing plans. Principal staff were to come to the retreat with "detailed consolidation and downsizing plans" and were to assume that there "will be significant staff reductions associated with implementing a financial systems integration plan."[3] Planning materials for the meeting made it clear that reductions would be attained by using incentives for voluntary separation and normal attrition rather than reduction-in-force (RIF) actions. The materials also explained that fewer staff would be needed because HUD would reengineer work, consolidate programs, and outsource operations that were not inherently governmental functions.

Before the meeting, the Office of Departmental Operations and Coordination (ODOC) collected and distributed materials from program and major administrative offices that described their vision, major functions, anticipated changes, and timetables. All participants thus had a sense of HUD plans beyond their immediate offices. A department-focused Management Action Plan presented broad goals and steps to achieve them. Included in the materials was a list of benefits and costs associated with change.

These early planning documents assumed that part of HUD's staff reductions would be possible because the department would close approximately 20 offices as it consolidated location-neutral work.[4] After the retreat, each major HUD unit submitted revised Business and Management Plans. In requesting these, the deputy secretary informed principal staff that the secretary had decided not to have any office closures and to develop and implement a "Model Office Redesign Concept for Integrated Service Delivery."

The Business and Management Plans had six areas: 1) proposed organization (headquarters and field) including, proposed and detailed functional statements, organization charts, and staffing pattern charts; 2) proposed systems and methods of operations (headquarters and field); 3) estimated resource requirements (on-board staff and/or contractors), including a summary and analysis of projected workload to serve as the basis for staffing allocations; 4) systems requirements (financial and management information); 5) performance measures to meet GPRA requirements; and 6) proposed delegations of authority (headquarters and field).

The plans were prepared under a tight deadline (two weeks) and did not tie into analytical estimates of staffing needs. The Office of the Secretary assigned staffing complements to the offices that would permit HUD to get to 7,500 staff by the year 2000 (later changed to 2002 and then changed to 9,200 staff).

Broadening the Input and Planning

The April 1997 Business and Management Plans were "starting points" for the Change Agent Teams (CATs) that the secretary created the same month to help redesign the department's operations. The teams corresponded to HUD's major program areas as well as some cross-cutting functions such as financial management integrity and technology investment. The teams were comprised of headquarters and field staff and deliberately included people who did not work in the given areas so that participants could look at program and management issues from a fresh perspective. The teams were told to think in terms of "one HUD," address GAO and Office of Inspector General concerns, and recommend ways to improve the efficiency and effectiveness of HUD's performance in the context of departmental downsizing. Each team received a staff number and was told to develop action plans that would enable HUD to reach that target.

The CAT reports all had information on staffing reductions needed to get to the designated target levels, including such things as how processes might be consolidated or work might otherwise change. The reports were based on assumptions and timeframes for when something would be accomplished (such as all HOCs becoming operational). There were no alternate analyses that expressed whether a different number of staff would be needed if one of the assumptions proved to be unworkable. All of the reports mentioned that contractors would perform more functions in the future, though the Office of Fair Housing and Equal Opportunity saw less of a prospect for this than the other program offices.

HUD 2020 MANAGEMENT REFORM PLAN

The business plans, retreat, and CAT reports contributed to the May 1997 *HUD 2020 Management Reform Plan*, which was built around six major reforms.[5] They are:

- reorganize by function rather than strictly by program 'cylinders.' Consolidate and privatize where needed
- modernize and integrate HUD's outdated financial management systems with an efficient, state-of-the-art system
- create an enforcement authority with one objective—to restore public trust
- refocus and retrain HUD's workforce to carry out HUD's revitalized mission
- establish new performance-based systems for HUD programs, operations, and employees
- replace HUD's top-down bureaucracy with a new customer-friendly structure

In the plan, HUD committed to: reduce staff from 10,500 employees to 7,500; restructure operations; and dramatically consolidate its 300-plus programs and activities. The plan also noted that as HUD's long-term budget for programs rises, "the new HUD will truly be doing more with less."[6]

New Vision for Roles of HUD Staff

A key component of *HUD 2020 MRP* was the designation of many staff as either "community builders" (CBs) or "public trust officers" (PTOs). The CBs are to "empower communities" by bringing in technical expertise and knowledge of finance programs and economic development. They are cooperative resources who serve as the first point of contact for HUD's customers, helping them gain access to the range of HUD services. The PTOs are to ensure that federal funds are used appropriately and in compliance with laws and regulations. They work in the field performing monitoring functions and referring important problem cases to HUD's Enforcement Center.[7]

While most PTOs came from HUD's ranks, HUD recruited approximately 200 of the 600 CBs from outside the department as part of an aggressive recruiting effort to accommodate the many changes in work methods and location. The CBs selected from outside HUD are to serve two to four years and return to their communities, ultimately creating a cadre of talent that knows HUD's programs as well as community needs. The CBs recruited from outside HUD attended the John F. Kennedy School of Public Administration at Harvard for a special program of several weeks and then a two-week HUD orientation and on-the-job training. Each field office has a mix of a senior CB (who is either the secretary's representative or state representative), CBs, and associate CBs.

Consolidating Work Processes Into Centers

Along with new thinking about the roles staff would play were plans to stop doing all aspects of HUD work in each field office. Beginning in 1995, HUD began consolidating single family processing functions and administrative operations. For example, Denver became a hub for processing single family mortgage work (such as insurance endorsements, underwriting, and lender monitoring) in late 1994. Using contractors for much of the work, the Denver office reduced processing time from several weeks to a few days. By 1998, all single family work was consolidated in four Homeownership Centers, and some aspects of multi-family work have been combined in two Multifamily Disposition Centers. Other multifamily work will be consolidated in 18 hubs and public housing functions will be in 28 offices.

Field offices have varying staffing structures depending on whether they will be, for example, a multifamily hub or an administrative service center. All but a few offices will have a regional or HUD-wide responsibility. Some of these changes and other proposals have been in process for some time, others have been developed since Secretary Cuomo announced *HUD 2020 MRP* in June 1997.

HUD staff held many sessions to develop protocols to facilitate the transition of services from decentralized to centralized processing and to define long-term roles of offices throughout the organization. Concurrently, HUD has worked to develop standard definitions for financial and management terms that are used across HUD.

HUD worked with its unions to plan staff reductions and relocations. In implementing *HUD 2020 MRP*, HUD used its authority to offer buyouts for employees in targeted locations, titles, series, grades, and program operations. Though it did not plan a formal RIF, HUD initially planned to reduce staff and abolish positions as the work migrated to processing hubs or other offices. Staff were to apply for positions in the new locations. HUD contracted with an outplacement firm so staff not placed would have assistance in finding new jobs. However, in late summer 1997, HUD decided not to have any directed reassignments and to permit staff to remain in their current offices until the year 2002, even if the work moved. Authorization for buyouts ended in December 1997; 1,001 HUD staff took advantage of the two buyouts in 1997. At the end of December, HUD employees funded from the salaries and expense appropriation numbered about 9,100. Secretary Cuomo announced in May 1998 that HUD's staffing goal would be 9,200, pending congressional action to consolidate programs.

HUD did ask a major consulting firm to review *HUD 2020 MRP* and its staffing goals. The group did this by "reviewing and analyzing the staffing requirements of the new HUD, with the primary mechanism being a review of the implementation plans and an assessment of the adequacy and reasonableness of staff levels proposed in each plan." The conclusions were that the plan was sound and that "approximately 7,726 FTEs will be adequate for the department to carry out the responsibilities of the reformed HUD in 2002."[8] The Academy staff reviewed this report and spoke with staff at the consulting firm. The review methodology entailed no visits to field offices and no testing to see if the HUD estimates (themselves not based on work measurement techniques) were sufficient to perform HUD's work.

HUD's PAST EXPERIENCES WITH RESOURCE ESTIMATION

During the 1970s, HUD developed a work-measurement and staff-estimating process for field operations and some headquarters functions that was supported by a staff time-reporting system and linked to the management planning systems. HUD discontinued these systems in the early 1980s, concurrent with the emphasis at that time on downsizing the workforce.

From 1981 to 1985, HUD did not systematically relate staff utilization to program functions. In 1985, HUD implemented RAGS. This system associated reported staff time in regional and field offices (except for legal staff) with workload indicators HUD's program offices defined. Many of the indicators did not measure work accomplished; rather, RAGS showed staff utilization relative to programs and activities within programs.[9]

Regional and field staff reported how they used their time by defined work activities using ETRS. Workload data were entered into the RAGS either manually or through automated interfaces with other HUD systems. Except for the accounting office, RAGS did not cover headquarters. Many staff interviewed in the field during this project indicated that the monthly ETRS submissions did not accurately reflect how staff spent their time.

HUD abolished RAGS and the supporting ETRS in mid-1995. Headquarters program divisions, rather than field or regional offices, became the focal point for resource allocation. There was less emphasis on estimation, since HUD was reducing its staff. When Academy staff interviewed field staff in 1997 and 1998, they said they were rarely asked to provide any information on the resources they believed they needed to accomplish the work for which they were responsible. Offices were simply told they would have a lower number of staff.

Faced with no central system on which to base staff resource estimates and seemingly no input from the field, most headquarters program units developed their own approaches. Those the Academy staff noted dealt with allocating assigned resources rather than developing estimates to meet workload demand, since staffing targets were set centrally. The individual office approaches are discussed in Appendix 3.

Until mid-1997, the Budget Office was under the assistant secretary for administration. It is now within the Office of the Chief Financial Officer, part of the effort to better coordinate budget, strategic planning, and financial management. *HUD 2020 MRP* notes that this process will enable HUD to better match "workload planning (estimates and allocations) through the use of GPRA performance measures, HUD's strategic plan, and a new management plan.

OVERLAY OF OTHER PLANNING PROCESSES

Among the GPRA requirements is that a department prepare a 5-year strategic plan that is "a description of how the goals and objectives are to be achieved, including a description of the operational processes, skills and technology, and the human capital, information, and other resources required to meet those goals and objectives." GPRA also requires an annual performance plan (APP) that links strategic goals with day-to-day program activities. Among its requirements, the APP must include performance targets for the program activities listed in the budget and a summary of the resources needed to meet those targets.

HUD operationalizes its GPRA strategic objectives through the business and operating plan (BOP) process, which replaced the department's strategic performance system starting in fiscal year 1999. In May 1998 and June 1999, several hundred HUD staff from headquarters and field offices attended working sessions to develop the first and second BOPs. With this foundation, each of HUD's 81 field offices prepares a BOP for its geographic jurisdiction. The BOPs define important outcomes for citizens and communities in the local area, consistent with HUD's national strategic priorities.

The BOP utilizes a "bottom-up" process through which all components of each field office work together to describe the products and services that HUD needs to deliver within the jurisdiction to accomplish local strategies and help achieve HUD's national strategic objectives and performance goals. Either the senior community builder or secretary's representative for each field office oversees the plan's development. Also reflected in the BOP are the resources available to perform the work required. However, the resource estimates are not a "bottom-up" estimate related to work tasks. Rather, they indicate how the staff years allocated across the organization are assigned to the various the BOP tasks.

Linking GPRA and Resource Estimation

As the staff completed work on the pilot demonstrations, it became evident that the task identification work and resource estimation work provides useful data in support of GPRA. GPRA requires agencies to match resources with performance goals, and also places an emphasis on the development of unit cost figures. The use of the task and estimated resource information developed in the pilots can serve as a basis for developing activity-based cost information within organizations. For example, the 27 work areas developed in the Denver HOC and associated costs can be replicated across the remaining three HOCs. HUD can then compare the costs of performing specific tasks at each HOC (taking into account such factors as variations in workload and level of staff experience). By looking at the costs for each work area at the four HOCs, HUD could set a "norm" cost figure, and then examine variances from the "norm" and the underlying reasons for them.

To relate GPRA outcome goals and supporting output goals with resource estimation, Academy staff prepared an outcome sequence analysis chart to align the resource estimation work with HUD's BOP and APP. The use of these charts was particularly useful in the Academy's work in the GPRA portion of the HUD project to differentiate outcomes and intermediate outputs.

Figure 2-1 shows how the strategic objective "Increase Homeownership" is aligned with the intermediate APP goals, program outputs, and field office BOP goals, and supported by the task and staff estimates developed for the Denver PUD. Figure 2-1 also provides space for entering similar data for the remaining HOCs (Philadelphia, Atlanta, and Santa Ana) to complete the analysis. The sample in Figure 2-1, when completed, will show what tasks and staff requirements support BOP and APP goals, all of which support the overall desired outcome of increasing homeownership. As HUD identifies tasks and estimates resources for other functions throughout the department, additional APP and BOP goals can be matched using the same technique.

CONCERNS ABOUT THE ADEQUACY OF HUD RESOURCE LEVELS

One of the weaknesses HUD cited in its *HUD 2020 Management Reform Plan* was the department's weak and fragmented ability to estimate its resource needs and make budget allocations. As indicated in Chapter One, one of the planned changes was that the budget office would implement REAP, which would link resources to results as required by GPRA.[10] When the Academy began its work in 1997, it learned that there was not yet a formal proposal for REAP, and Academy staff have worked closely with OB staff to develop and demonstrate a methodology to estimate resource needs. HUD has cited its commitment to developing such a system on a number of occasions, including in its APP.

Hold this page for Figure 2-1

HUD was not alone in questioning whether it could accurately assess its resource needs. The General Accounting Office designated HUD as a high-risk agency in January 1994 and repeated this designation in February of 1995, 1997, and 1999. One of the four reasons for the departmentwide designation was because of HUD's insufficient mix of staff with the proper skills. GAO believed this hampered the effective monitoring and oversight of HUD's programs and the timely updating of procedures. Though GAO has recognized HUD's progress in overhauling its operations to correct management deficiencies, it notes that many corrective actions are far from complete and problems continue.[11]

In spring of 1999, GAO issued two reports and presented testimony that discussed HUD problems in public trust functions. One report examined HUD's on-site monitoring of grantees and the other reviewed HUD's oversight of appraiser performance. In the first report, GAO found what it termed "significant problems" in visits to eleven grantees, and indicated these could have been detected with on-site monitoring.[12] In the second report, GAO noted that HUD was not routinely verifying the observations of field review contractors or systematically evaluating contractors' performance as required.[13] In both cases, HUD staff responded that they lacked the resources needed to devote more time to these functions.

Observations of the HUD Inspector General

The HUD inspector general (IG) has consistently reported material weaknesses in HUD's management controls and attributed them in part to shortage of staff resources and/or staff skills in relation to work to accomplish. In a March 1996 report, the IG said that HUD's long-standing performance problems were linked to significant imbalances in HUD's mission expectations, program design and administrative capacity, and to poor internal management. The report credited the 1994 *Reinvention Blueprint* with being the first serious proposal to improve HUD's overall program delivery structure. However, it was not comprehensive and proposed a major staff reduction without relating the decreases to specific program needs.[14] One of the reasons the staff reductions were out of synch with program needs was HUD's lack of a systematic means to identify resource needs and allocate resources to ensure that essential program functions were carried out. The IG specifically noted that HUD lacked a bottom-up budget formulation process to identify resource needs based on detailed analyses of program roles, functions, processes and anticipated workloads.[15]

In its initial assessment of the *HUD 2020 Management Reform Plan*, the IG's office recognized that the plan was one of the boldest attempts to overhaul and improve departmental operations. However, the IG was concerned that the plan was built on an unsupported premise that HUD could adequately function with a staff of 7,500 [changed to 9,150 in May 1998], a number that was determined without first performing an adequate analysis of HUD's diverse and complex mission and without assessing HUD's financial risk exposure, functions, and future workload demands.[16]

The March 1999 IG report on HUD's fiscal year 1998 financial statements raised additional concerns about HUD's resource level. Many related to monitoring in areas such as troubled or potentially troubled multi-family assisted projects and occupancy reviews of public housing authorities. While the

OIG recognized the efficiencies to be achieved through many aspects of *HUD 2020 MRP*, it highlighted the fact that staff reductions based on potential efficiencies were made before many organizational or process changes were in place. The IG found that, for the most part, HUD's business operations continue to be conducted as in the past, with far fewer staff. In some instances, the lack of staff in critical positions has caused dysfunction in field locations.[17]

Continuing Congressional Concerns

During the Academy's study, Congress has continued to express reservations about HUD's lack of a system to assess its resource needs. The House has expressed concerns with HUD's decisions to contract out work, noting that they may be due to stringent personnel reduction goals "without adequate consideration as to whether the work could be performed less expensively or more effectively by HUD personnel."[18] The House report requested that HUD report to the House and Senate Committees on Appropriations (by September 1, 1998) about the department's procedures to determine whether work would be contracted out or performed in-house. This report reached Congress in time for the Conference Committee on the fiscal year 1999 HUD appropriation to examine it.

The conferees expressed alarm about the content of the report, which they characterized as saying that HUD's only real procedures to determine if a function should be contracted out are the OMB Circular A-76 procedures, but HUD has not conducted an A-76 review in a number of years. Though concerned about legal issues, the conferees said they were also concerned about whether the contracting-out decisions made sense. In particular, the committee was concerned that HUD's "desire to meet stringent personnel reduction goals has led to contracting out of functions that could be performed more efficiently or less expensively in-house." The conferees urged the department to reconsider whether it needed further controls and analytical procedures to make sure that contracting out is done only when it is cost effective to do so.[19]

CONSIDERATIONS FOR CONTRACTING OUT

There are many considerations when an agency determines whether to contract out or "privatize" work formerly done by federal employees. Among them are whether the work requires the professional judgment of a government employee or whether it is process-type work that can be accomplished by any individual trained to perform it.[20]

One of the early areas HUD considered for contracting out was processing the more than one million requests for single-family mortgage insurance certificates. Prior to the early 1990s, HUD not only issued the certificates, it performed all the work associated with endorsing the lender's request that HUD insure a mortgage. HUD worked with the mortgage industry to develop "direct endorsement," through which the lenders themselves directly endorse the mortgage loan as able to be insured. HUD now processes the insurance certificates themselves and performs quality reviews to ensure that the lenders are following HUD guidelines in areas such as reviewing the applications for insurability and determining if appraisals accurately represent market value for the home. HUD and the mortgage industry were able to devolve endorsement responsibility in part because of enhanced technology.

With HUD's role now one of processing and oversight, it was possible for HUD to consider contracting out the processing function, and it has done so. The combination of technology, direct endorsement, and contracting out has enabled the overall processing time to drop from a matter of weeks to days. One of the demonstration sites for this project (Denver Homeownership Center's Processing and Underwriting Division) was selected because it was an example of how HUD manages "process work." (See Chapter Four.)

HUD has calculated its use of contractor services and considered criteria to consider in contracting out work. In July 1996, a team drafted a plan to contract out or transfer program and support functions to improve efficiency.[21] Appendix 4 discusses the factors the team suggested be considered in deciding what work could be done other than by HUD employees. The 1996 report said that, in fiscal year 1995, HUD contracted out $676 million in work and the FTEs were 7,035.[22] The current comparable figure for fiscal year 1998 is $662.9 million, which converts to 6,898 FTEs using the same average cost of an equivalent contract FTE.

In examining the 1996 study, the Academy study team was impressed with the thoroughness of the criteria set forth considering which HUD work was inherently governmental and which might be outsourced using a variety of methods. These criteria, which are described more fully in Appendix 4, are:

1. Potential performance improvement and mission effectiveness
2. Program policy control
3. Potential cost savings
4. Management controls
5. Degree of contractibility
6. Feasibility for an employee stock option plan (ESOP)
7. Separability
8. Experienced vendors
9. Sufficient volume/scale
10. Contract monitoring

Several members of the Academy panel reviewed these criteria to suggest what else HUD might consider. They noted two items: HUD should consider whether a particular function under review needs to be performed at all; and, in considering the degree of contractibility, HUD should focus more broadly on whether a function is inherently governmental not merely (as noted in Appendix 4) whether it is identifed in Attachment A to OMB Circular A-76.

IMPACT OF LACK OF A RESOURCE ESTIMATION SYSTEM

HUD is in the midst of changing the way it does business, the expectations for its staff, and the number of staff available to fulfill its mission. The department is used to being in flux, and it has benefited from having a secretary who previously served as an assistant secretary. He knew a great deal about the department when he instituted *HUD 2020 MRP*.

Nonetheless, HUD's staff reductions from 1992 forward began before changes occurred in the department's workload. The number of programs to manage or grants to monitor has not been reduced. Some staff reductions have considered the benefits of improved work methods (especially by consolidating back-room processing) and reassigning organizational responsi-bilities. However, the basis for most staff level changes in the recent past has been top-down direction that HUD reduce staff levels to get to a target number. The lack of an analytical basis for much of that direction has not let top management know whether resulting staff levels in individual offices and overall are adequate to accomplish the department's mission.

The lack of bottom-up input to its budget process limits HUD's ability to gauge what state and local governments and other clients believe HUD should do to meet their needs and fulfill statutory monitoring requirements. Presumably, if HUD's staff had input into the resource estimation process they would be eliciting and providing more information about client needs. In addition, while field offices have budgets for travel and training, HUD has sometimes weakened these tools –which are essential for developing schedules and monitoring HUD programs – by reducing those budgets substantially or allocating them on a quarterly basis rather than for an entire fiscal year.

WHY A TASK DEFINITION APPROACH

HUD's work organization and methods have changed greatly since 1982, when it last did task-based work definition. Many processes have been streamlined and centralized, and HUD has worked hard to train its staff to become more knowledgeable about such things as mortgage finance and creative techniques for working with community organizations.

Work of HUD staff (as opposed to contractors) even in process functions (such as reviewing mortgage insurance cases) appears to be more knowledge-based that it was when the Academy reviewed HUD in the 1992-94 timeframe. In many respects, knowledge work requires more thorough task definition than process work, especially if senior managers are to have a good understanding of the complexity of the work and the resources needed to accomplish it.

In examining several other agencies' experiences in defining work and estimating resources, it was clear that key motivations were to be able to identify the cost of activities and to better manage work processes. In a period of declining resources, agencies wanted more capacity and better techniques to manage scarce funds. While some agencies had done more extensive task inventories than others, all stressed that there is no substitute for this step.

Among the benefits of basing estimates on comprehensive task definitions are that this will:

- Relate estimates directly to the work performed rather than aggregate data, such as number of grants managed, which does not provide information on what it takes to manage grants of varying sizes or the complexities inherent in working with small non-profit organizations.

- Permit identifying tasks/offices that are under or over-staffed.

- Permit senior staff to better understand the role of community builders, how that role has evolved, and its impact on day-to-day operations.

- Reveal information that can lead to process improvements that should reduce resource estimates.

- Provide better information on work distribution *vis. a vis.* staff numbers and capabilities, which should contribute to more effective staff deployment and better-defined training needs.

- Assist HUD in responding to the weaknesses described in GAO's high-risk report, since it appears GAO is concerned that HUD has not been able to correlate its workload and staffing needs with its staffing estimates.

- Help HUD better link required staff resources to GPRA goals and objectives.

- Help HUD better understand the role its program staff plan in designing, implementing, and monitoring contracts.

Endnotes for Chapter Two

1 U.S. Department of Housing and Urban Development, *HUD Reinvention: From Blueprint to Action* (Washington, D.C.: Department of Housing and Urban Development, March 1995), 7 & 74.

2 In 1994 and early 1995, two Academy Fellows, Alan Dean and Harold Seidman, advised former Assistant Secretary Retsinas on the suitability of the corporate structure and how to present the advantages to Congress and others. While many at HUD favor a corporate structure for FHA, this would take congressional approval.

3 *Draft Retreat Agenda*, Memo from the deputy secretary to principal staff, February 18, 1997.

4 U.S. Department of Housing and Urban Development, *Transforming HUD into a Streamlined, Community-First Cabinet Agency: Management Action Plan* (Washington, D.C.: HUD, February 1997), 10.

5 The May 1997 *HUD 2020 MRP* was presented in two binders that had more detailed descriptive material than the June 1997 document. The June version is that which is quoted unless otherwise noted.

6 HUD, *HUD 2020 MRP*. 13.

7 HUD, *HUD 2020 MRP*. 43

8 Booz-Allen & Hamilton, Inc. *HUD 2020 Implementation Plan Review* (Booz-Allen & Hamilton, Inc., March 25, 1998) 1-1.

[9] HUD Handbook No. 2144.01 REV-3, October 1991 (no longer in use) covered RAGS. Of 178 RAGS described in the handbook, 97 had demand-type workload indicators, 77 had inventory-type indicators, and 4 had none. Demand-type indicators generally measure work units accomplished; often the work units are not uniform in their staff requirements (such as analyses performed, memoranda prepared, etc.) but they represent approximate measures of work accomplished. Inventory-type indicators measure the number of items on hand as of a point of time or on average over time (such as number of active grantees, number of loans in inventory etc.) but do not discretely measure HUD staff activities associated with monitoring, maintaining, or servicing the inventory items.

[10] U.S. Department of Housing and Urban Development, *HUD 2020 Management Reform Plan* (Washington, D.C.: June 1997), 93.

[11] U.S. General Accounting Office, *High Risk Series, Department of Housing and Urban Development* GAO/HR-97-12. (Washington, D.C.: February 1997),6.

[12] U.S. General Accounting Office, *Community Development: Weak Management Controls Compromise Integrity of Four HUD Grant Programs,* GAO/T-RCED-99-175. (Washington, D.C.: April 29, 1999), 5.

[13] U.S. General Accounting Office, *HUD's Oversight of FHA Appraisals*, GA)/RCED-99-72. (Washington, D.C.: April 16, 1999) 9.

[14] Office of the Inspector General, Department of Housing and Urban Development, *Semiannual Report to the Congress* (Washington, DC: Department of Housing and Urban Development), 2.

[15] HUD IG, *Semiannual Report to the Congress*, March 31, 1996, 5.

[16] Office of the Inspector General, U.S. Department of Housing and Urban Development, *Semiannual Report to the Congress as of September 30, 1997* HUD-1694-IG (Washington, D.C.: HUD, December 1997), 2 and 6.

[17] Office of Audit, Financial Audit Division of the HUD IG, *U.S. Department of Housing and Urban Development Audit of Fiscal Year 1998 Financial Statements,* March 29, 1999. 99-FO-177-0003, p 16.

[18] U.S. House, Committee on Appropriations, *Depts. Of Veterans Affairs And Housing And Urban Development, And Independent Agencies Appropriations Bill, 1999,* 105th Cong., 2nd sess., 1998, H. Doc. 105.610.

[19] U.S. House. Committee on Appropriations Conference Report, *Making Appropriations For The Department Of Veterans Affairs And Housing And Urban Development, And For Sundry Independent Agencies, Boards, Commission, Corporations, And Offices For The Fiscal Year Ending September 30, 1999, And For Other Purposes*, 1998. 105th Cong., 2nd sess., 1998, H. Doc. 105-769.

[20] One consideration is whether work represents inherently governmental functions, as outlined in OMB Circular A-76. It defines them as "those functions which are so intimately related to the public interest as to mandate performance solely gy government employees. Examples…include setting government policy, preparing budget requests, supervising government employees, and exercising discretionary authority on behalf of the government."

[21] Operational Efficiency and Effectiveness Project Action Team, *Report to the Secretary and Deputy Secretary*, July 1, 1996.

[22] *Ibid.*, Appendix Five.

CHAPTER THREE
DESIGNING A RESOURCE MANAGEMENT SYSTEM

The Academy panel believed that HUD should be a full participant in the efforts to develop and demonstrate an approach to resource management. This would provide the opportunity for HUD officials to accept the design and avoid the notion that the results were "someone else's system" and, therefore, not appropriate for HUD. This chapter discusses the role of the HUD Advisory Group, outlines the underlying principles the Advisory Group agreed upon for designing the demonstration approach and the criteria for the system's components, and presents information on other federal agencies' practices to estimate and allocate resources.

WORKING WITH THE HUD ADVISORY GROUP

The Academy staff worked closely with HUD's chief financial officer (CFO) to establish an Advisory Group that would provide advice in the design a model resource management system and the testing of one aspect of it – resource estimation. The Advisory Group consisted of program and budget staff from headquarters and field offices as well as union representatives. The group met twice to help design and reach agreement on the criteria for the three elements of a resource management system (resource estimation, allocation, and validation) and the methodology to demonstrate the resource estimation component. It met a third time to review demonstration results. Prior to the first meeting, some of the participants completed a survey that asked what they considered to be important components of effective resource estimation and allocation and how their offices estimated and allocated resources. This assisted the Academy staff in developing a list of tentative criteria for the three elements of a resource management system.

During its first meeting, the Advisory Group developed some broad recommendations to consider in designing and testing aspects of a departmental resource management system:

- It should reflect the best practices of systems in place in other federal agencies or departments.

- While the primary focus in the demonstration would be on staff resource needs, these should be examined in the context of resources available for travel and training because the adequacy of those resources has a large impact on the staff's ability to do its work.

- The system should link different resource levels with the work that can be accomplished with those resources. It should be a tool that enables HUD to demonstrate how different funding levels affect mission accomplishment.

- It would be important to determine and assess the criteria HUD uses to decide what work to contract out and what work to retain in-house.

Between meetings, the Academy staff sought input from Advisory Group members through individual discussions and by inviting their comments on proposals. The latter was accomplished by placing materials on the CFO web page or by furnishing each member with copies of proposals. Advisory Group members reviewed and commented on a draft concept paper that outlined an approach to resource estimation and allocation and a demonstration work plan that Academy staff prepared on the basis of the group's input.

In addition to their assistance in developing an overall approach and demonstrating a model estimation system, Advisory Group members reviewed an inventory of HUD programs. Academy staff assembled this inventory by reviewing program lists prepared by the Office of Policy Development and Research (as presented on the HUD Web page), the Office of General Counsel, and the Office of Inspector General, as well as by examining the sections of the Catalog of Federal Domestic Assistance that pertained to HUD programs. Group members deleted programs that were totally inactive and identified programs that were custodial only or where items in the inventory were actually part of other programs. This revised inventory was intended to support the demonstration phase of the work. (See Appendix 2 for details.)

COMPONENTS OF AN EFFECTIVE RESOURCE MANAGEMENT SYSTEM

The proposed model for the resource management system includes three components – estimation, allocation, and validation. The demonstration phase of the project addressed only resource estimation. Resource allocation will use the data developed during the resource estimation phase. To determine how resource estimates relate to how staff spend their time, the department is developing an automated validation system, Total Estimation and Allocation Mechanism (TEAM), which will assist in the validation effort.

By the end of its second meeting, the Advisory Group had finalized the criteria for the three major components of the system and had outlined some underlying principles. The Advisory Group's underlying principles for the overall ***resource management system*** included:

- HUD's workload must be defined comprehensively. HUD should identify all process and knowledge work.
- Program assistant secretaries should retain decision-making authority over the systems to be used in their organizations.
- There should be some central guidance on how work is defined and how data are collected. This will ensure consistency and the ability to compare data among program areas.
- The field should be involved in the workload definition exercise and in setting workload priorities.

- There needs to be an incentive for staff to report accurate data for the system. The best incentive would be that the system clearly serves legitimate HUD needs.

- The system should link workload and resources so that GPRA performance goals and indicators can be matched with resources required to accomplish the goals.

- The system should have some means to measure how resources used are related to accomplishments so that the standards used to estimate resources are validated and updated.

The Advisory Group believed the criteria for an effective ***resource estimation system*** would include components that would enable HUD to:

- Develop requests for resource needs--for current and proposed policies and programs--to prepare departmental budget justifications that clearly indicate what work can be accomplished at different resource levels.

- Develop budget requests based on factors beyond the immediate HUD environment, such as the real estate market, public assistance policies, and relevant economic data.

- Provide sufficient information to OMB and Congress so they can gauge the resources needed to fulfill HUD's mission and meet the requirements of HUD's programs.

- Determine what work can be accomplished with HUD staff and what work would be done more efficiently if contracted out, and facilitate cost comparisons for use of in-house staff versus contractors.[1]

- Include justifications from staff at working levels in the field and headquarters.

- Develop resource estimates in sufficient time so that HUD's Budget Office can evaluate them in conjunction with workload data, have time for give and take with the submitting program offices, and provide information useful for subsequent discussions with OMB and Congress

The Advisory Group believed criteria for an effective ***resource allocation system*** would include components that would enable HUD to:

- Relate the resources allocated to accomplishments as identified in the GPRA-required annual performance plans and HUD's business and operating plans.

- Make informed resource allocation decisions when there are not enough resources to do all assigned work, and be flexible enough to reassign resources when needs change.

- Obligate funds for annual contracts early in the year, so contract amendments do not have to be issued on a monthly basis.

- Know resources, by budget object class, for the full fiscal year.

- Ensure that programs that operate well receive adequate resources so that they continue to function well and that troubled programs receive sufficient resources to improve.

- Link resources to essential functions of current programs and specify secondary activities that can only be met if additional resources are provided

Similarly, an effective ***resource validation system*** would include components that would enable HUD to:

- Ensure resources are spent as Congress intended.

- Validate the outputs of the resource estimation and allocation system through time and workload reporting.

- Tie staff utilization to performance measurement systems, especially those related to GPRA.

- Be sufficiently simple that staff do not view system requirements as onerous.

- Generate reports that enable HUD managers and staff to see how the data they input provide information useful to managing HUD programs and operations.

LEARNING FROM OTHER ORGANIZATIONS

Because all executive departments operate under the same broad management requirements, the Academy staff examined resource estimation, allocation, and validation systems in several federal organizations. Several of them are highlighted in Table 3-1.

All of the agencies studied used a system built around work definition and task information to estimate resources needed. Academy staff observed a key motivation was often a desire to move toward activity-based costing, not solely a desire to estimate resources. The advent of GPRA with associated requirements to link costs to performance goals was also a motivating factor.

Only the Department of Agriculture's Rural Development Administration used a forward-looking effort that brought employees together to map out tasks and related times. The remaining agencies took a retrospective approach, matching reported task and/or production reports with time being spent to arrive at "norms" for task time.

Another important feature of systems at other agencies was the ability to update the time estimates. The agency that devoted the most effort in this area was the Defense Logistics Agency, which used a Windows-based system to have all employees enter on a daily basis their time for various tasks included in the system. Most agencies, however, either updated their estimates by new production/time reports or by the use of employee surveys.

The Academy presented some of this background information at the first Advisory Group meeting. The participants found it useful and asked the Academy to gather more information and to review some non-federal organizations as well. Descriptions of several federal agency and state and local government systems are in Appendix 4.

Table 3-1
Summary of Some Resource Estimation Benchmark Agencies

Department/ Agency	System Description	Data used in support of Activity-based costing	Updating procedures
Rural Development Administration	Work Measurement Study	Yes	Surveys planned
Patent and Trademark Office	Patent Production and Pendency Model	Yes	Model is updated periodically
Defense Contract Management Command	Performance Labor Accounting System	Yes	Use of Windows-based system updates daily
Bureau of Prisons	Staffing Guideline System	No	Surveys
U.S. Customs Service	Cost Management Information System	Yes	Surveys
Social Security Administration	Cost Accounting System	Yes	Surveys/periodic production/time reports
Veterans Benefits Administration	Work Measurement, Work Standards	Yes	Moved from on-site update to surveys

SELECTING A DEMONSTRATION SITE

The Advisory Group believed the demonstration should address process and knowledge-based work. They agreed that the Academy would demonstrate the model at two sites. The Advisory Group developed the following criteria for selecting sites:

- The offices selected should not be undergoing major organizational or process change as a result of the HUD 2020 *Management Reform Plan*, or any recent changes should be fairly stabilized.

- The work activities should involve headquarters and field units, recognizing that the headquarters role will not involve the same level of direct day-to-day participation as the field.

- The work processes used should be relatively well-documented, so there would be less demonstration time spent defining the work and more time spent estimating the resources required and determining if there was work that was not getting done.

- There should be management support to participate in the demonstration at the deputy assistant secretary level in Washington and the senior program staff level in the field.

After the Academy panel approved the broad approach for the demonstration methodology at its July 1998 meeting, Academy staff met with the CFO and HUD's budget officer and staff from their offices to present the demonstration model, reinforce the cooperative nature of the project, and discuss selecting offices in which to demonstrate the methodology. In late July, the CFO sent program assistant secretaries a memo asking for their assistance in selecting demonstration sites. Included with the memo was the Advisory Group-approved concept paper for the demonstration. The memo advised that a HUD Advisory Group member from their office would contact them to discuss demonstration site possibilities.

The selection process proved to be a lengthy one. In late October, Academy staff met with the deputy secretary, CFO, acting assistant secretary for administration, and other HUD officials to discuss the site selection. The deputy secretary agreed with the Advisory Group's recommendation that the processing and underwriting functions of the Office of Housing's single family housing mortgage insurance program and the grants management process in the Office of Community Planning and Development (CPD) would be good candidates. In November, HUD selected two field demonstration sites -- the CPD grants management process in Philadelphia and the Processing and Underwriting Division of the Denver HOC. Headquarters offices that worked on tasks that related to the field work also were to be included in the demonstration. Because the grants management process for entitlement grantees and competitive grant recipients encompasses nearly all CPD work in Philadelphia, that demonstration essentially would become the CPD field office's entire resource estimate.

The two demonstration sites provided a good mix of process and knowledge-based work and essentially met the Advisory Group's four selection criteria. Table 3-2 presents background information on what the field units do and their staffing history. Table 3-3 presents the corresponding information for headquarters units.

Denver, the first HOC, has been in existence since 1996, and handles single-family work for 17 states. The Philadelphia CPD office has a largely urban and urban-suburban group of cities and states with which to work. While neither is an "exact match" for other HUD offices with similar functions, their leadership and experience enabled them to serve as very effective prototypes for the resource estimation system.

Table 3-2
Overview of the Two Field Locations

	Processing and Underwriting Division of the Denver HOC	**Grants Management Process of CPD's Philadelphia Office**
Major activities	Review lender-endorsed applications for mortgage insurance and issue certificates of insurance.	Oversee fund distribution and review activities of entitlement grantees (large cities, urban counties, and states) on the CDGB, HOME and related programs. Similar functions (but narrower focus) for organizations that receive competitive awards.
Predominant type of work – staff	Knowledge-based, such as overseeing contractors, providing technical assistance, training mortgage lenders and appraisers, reviewing quality of underwriting, and interacting with the public. Detailed analysis of lender and contractor activities and performance.	Knowledge-based, with heavy emphasis on interactions with grantees and grant recipients, including monitoring their activities. Detailed analytical reviews of consolidated plans and annual performance reviews.
Predominant type of work – contractors	Process-based work, such as handling applications for mortgage insurance.	Provide technical assistance and training to HUD's CPD grantees and grant recipients.
On-board staff during demonstration	58	16
Office leadership team	Stable	Stable

Table 3-3
Overview of the Headquarters Units in the Demonstration

Office	Division	Responsibilities	On-board Staff During Demo
Community Planning and Development			
Office of Special Needs Assistance (SNAPS)	Community Assistance, State Assistance, and Program Coordination and Assistance Divisions	Award of grants in support of homeless assistance program	25
SNAPS	Program Coordination and Analysis Division	Award of grants in support of homeless assistance program	9
Office of Technical Assistance and Management	Technical Assistance Division	Award and oversee technical assistance grants and contracts CPD field offices use	8
Office of Executive Services (OES)	Field Management Division	Coordinate and oversee CPD field offices	14
Single Family Housing			
DAS for Single Family Housing: Office of Insured Single Family Housing	Home Mortgage Insurance Division: Mortgage Underwriting and Insurance Branch	Set program policies and conduct oversight for Title I and II Single Family Mortgage Insurance Programs	8
	Home Mortgage Insurance Division: Home Improvement Branch	Conduct program control and oversight of Title I and 203K Programs	5
Office of Lender Activities and Program Compliance	Lender Approval and Recertification Division	Establish standards for approval of Single Family and Multifamily lenders	17
	Quality Assurance Division	Conduct program control and oversight on quality assurance monitoring reviews for approved Title I and Title II lenders	5
	Office of the Director	Conduct program control for Office of Lender Activities and Program Compliance	3

[1] While the Academy staff was able to collect some information on the use of contractor staff, it was not able to identify criteria for contracting out work. See Chapter 4, page x for more information on the contract operations in the demonstration sites.

CHAPTER FOUR
DEMONSTRATING THE APPROACH TO ESTIMATING RESOURCES

Once HUD identified the demonstration sites, the Academy staff worked directly with those offices. The HUD staff involved in the demonstration accepted the challenges it presented. The Academy and OB staffs greatly appreciated their hard work and support throughout the process. This chapter discusses the framework for the model resource estimation and allocation system and describes the demonstration process and changes made to the methodology based on what was learned.

FRAMEWORK FOR A RESOURCE ESTIMATION AND ALLOCATION MODEL

The resource estimation and allocation model used in this demonstration includes four basic elements:

1. defining the work of the organization
2. estimating the volume of work, such as the number of grants issued
3. estimating the resources needed to accomplish the given level of work
4. measuring resource utilization in relation to workload accomplishment

Defining the Work

All work for an organizational unit was to be included in the work definitions, including program or administrative policy formulation, research, and oversight; direct program or administrative work; indirect program-related or administrative-related work, such as public or congressional inquiries; management/supervision personnel; and administrative or technical support.[1] To define the work, HUD staff identified major work areas and described all of the specific tasks within each area. There were separate areas for work performed across the department (such as general administration). As the demonstration is expanded to the rest of the department, the work definitions will be validated by having like or similar units across the department review and comment on these work areas and tasks. This process should lead to a "dictionary" of tasks for each major organizational unit.

Estimating Work Volume

HUD managers were to estimate the volume of work for each work area or task. The Academy staff and the Advisory Group had anticipated there would need to be varied methodologies to estimate volume, depending on the circumstances. The Academy staff and Advisory Group offered suggestions by category of work.

1. **Program or administrative policy formulation, research, or oversight**. Volume could be measured by the number of staff or level of contract support estimated to be needed based on past experience and forecast circumstances or in accordance with HUD standards or guidance.

2. **Direct program or administrative work**. For "demand" items--such as grant applications reviewed, insurance certificates issued--the volume of work could be measured by the number of demand units estimated for the period involved. For work activities related to "inventory" items (such as number of properties in inventory, number of active grants), work volume could be measured as the product of the number of inventory items times the required frequency of the work activities during the period involved.

3. **Program and administrative-related work**. Volume could be measured in such terms as the number of inquiries or other items estimated for the period involved. An alternative could be to estimate required resources directly based on the amount of time associated with such items in past periods based on either historical records of staff time utilization or estimates of the portion of staff time spent on such items.

4. **Management/supervisory work.** Volume could be measured based on such factors as standard ratios, past experience, a specific assessment of need in the unit, or in accordance with HUD standards or guidance.

5. **Administrative or technical support work**. Volume could be based on such factors as past experience, a specific assessment of need in the unit, or in accordance with HUD standards or guidance.

6. **Organizational change efforts**. Volume could be measured as the number of staff hours, recognizing that it would be unusual for any one person to be assigned full-time to these efforts for a full year.

Estimating Required Resources

There are a number of methods for estimating required staff resources. Organizational units should select the most appropriate methodology(ies) depending on the circumstances. The Advisory Group and the Academy staff noted the range of options, which are noted here. In addition, Figure 4-1 illustrates the types of work with which these methods could correlate.

1. **Professional judgment**. Management judgment after carefully considering the nature and volume of the defined workload when no workload analysis is available. This methodology should be reserved for circumstances where: the staffing for activities or functions is appropriately a "level of effort" judgment (such as policy formulation, research); the activities or functions are new or substantially changed; or cost and time constraints will not allow the use of other methodologies.

2. **Historic workload**. Projections based on ratios of staff utilization in relation to workload volumes over time. This methodology could be used if historic staff resources have been adequate to accomplish the workload. If staff resources have not been adequate, the historic workload methodology may be supplemented with additional analysis to gauge the past staff resource shortfall.

3. **Activity-based workload analysis.** Presentation of work activities and processes in terms of tasks and work steps, with estimates of staff time required to perform each. Calculated staff needs would be based on the estimated number of occurrences of each work activity. Estimates of the staff time required for each task or work step may be made by people who know the work processes (technical estimates) and/or may be informed by historical records of staff time utilized.

4. **Industry best practice**. Determinations based on staffing levels within the industry (which could include other federal agencies) to perform identical or similar functions efficiently. This methodology could be used for circumstances where there is clearly sufficient comparability of function and performance environment to support credibility of the methodology.

5. **HUD established standard**. Determinations based on benchmarks HUD has established for appropriately staffing particular functions or activities. This could include standards such as supervisor/employee ratios or employee/support personnel ratios.

There will be instances when other methods may be used, and there will also be times when staff will need to project near-term future workload (perhaps using one of these methods) if, for example, Congress has recently created a new program.

Figure 4-1
Methods to Use to Estimate Different Types of Work

	Professional Judgment	Historic Staffing	Activity-based Workload Analysis	Industry Best Practice	HUD-Established Standard
Program or administrative policy formulation, research or oversight	👍	☒			☒
Direct program or admin work	☒	☒	👍		
Program and admin-related work		👍	☒		
Mgmt/supervisory work	☒			☒	👍
Admin or tech support work		☒	👍		☒
Organizational change efforts	👍	☒		☒	

👍 = Best Approach ☒ = Alternate Approach

Measuring Resource Utilization

Once workload has been defined and managers have estimated resources required to accomplish it, there should be a means to measure on a continuous basis what level of resources are actually expended to accomplish workload goals. Approaches to measuring resource utilization vary in complexity, ranging from a daily reporting system to an annual employee survey. Regardless of the method, some form of utilization measurement needs to be in place to provide a basis to adjust resource estimation methods and, ultimately, to better determine the best mix of resources needed to accomplish HUD's mission. The validation system should be relatively simple to maintain and minimize the burden placed on HUD staff. HUD is developing an automated system to support the validation effort. It is scheduled to be operational for fiscal year 2000.

THE PHILADELPHIA CPD GRANTS MANAGEMENT PROCESS DEMONSTRATION

Preliminary Work in Philadelphia

The Academy staff's first task was to become familiar with CPD's grants management process. The staff collected and reviewed available documentation on the grants management work within CPD and used that information to develop a list of 17 tentative work areas and tasks within them. These work areas and tasks were to provide a starting point for the Philadelphia Work Definition Group (WDG) meeting.

Prior to the WDG meeting, Academy staff sent the CPD office some background information on the resource estimation and allocation project and an Academy staff member went to Philadelphia to meet with the CPD deputy director to discuss the demonstration process, share the work areas and tasks, and address any questions or issues. At that time, the CPD deputy director also provided additional information about the grants management process, which the Academy staff used to revise the work areas and tasks.

Defining the Work in Philadelphia

The WDG meeting took place on January 20-22, 1999. Those attending included Academy and OB staff, the CPD director, several CPD representatives and a financial analyst from Philadelphia, and CPD representatives from HUD's Baltimore, MD and Newark, NJ offices. Also present was a desk officer from the CPD headquarters Field Management Division.

First, the Academy and OB staffs provided the WDG with background information on the project and the goals and objectives of a resource estimation and allocation system. After reviewing and slightly modifying the general work areas, the WDG refined the work tasks using the tentative work areas and task lists Academy staff had prepared. However, it soon became apparent that it was easier for the CPD staff to talk through a work area from the beginning of the process and identify the tasks. As the CPD staff described the tasks, Academy staff facilitated the discussion and recorded it using a laptop computer.

By the end of the meeting, the WDG had discussed all the work areas. Academy staff refined the notes from the meeting and produced task lists for each area. The Philadelphia CPD staff reviewed the lists and suggested numerous revisions. This process took longer than anticipated, but the CPD staff's thoroughness made an intensive validation effort unnecessary.
Academy staff then shared the task lists with the HUD Advisory Group to get additional feedback on the tasks.

Estimating Resources in Philadelphia

The Philadelphia Resource Estimation Group (REG) met on April 7-8, 1999. The group consisted of the CPD director, the deputy director, the program manager, and a CPD representative. The Academy and OB staffs developed an Excel spreadsheet to capture the resource estimation data for each task. However, the spreadsheet was not designed to capture different resource needs for the various staff involved in any given task. So the Academy staff created a new data collection "grid" (Appendix 6) during the meeting. The Excel spreadsheet was later modified to capture different resource estimates for all staff involved in a task.

The estimation process required HUD staff to consider a number of factors for each task including:

- the priority level assigned to each task
- whether the task was fully done, partially done, or not done at all
- the annual workload for each task
- the staff involved in doing the task
- how often each staff member performed the task
- the amount of time it took each staff member to do their part of a task one time
- whether the task took varied amounts of time due to factors such as the client's knowledge and ability, program dollar values, etc.

Philadelphia staff based their estimates largely on professional judgment, since theirs is largely knowledge-based work.

Where the staff time for a task could vary, OB contemplated using a standard distribution formula to weight the hours in the low, average and high ranges. However, the extent of time variations was very task-dependent, and the Academy and OB staffs had not anticipated how great the variations could be. Thus, after the REG meeting, the Academy staff asked Philadelphia staff to specify how often the task took the low, average, or high times. For example, staff time to perform a substantive review on a consolidated plan varied from 8 to 16 to 40 hours. It was important to know that only 10% of the 36 consolidated plans took 40 hours to review.

As the REG participants estimated staff needs per task, they continued to modify the work areas. For example, initially, Area 2 included the review of the consolidated and annual plans communities submitted. However, because the work involved with these reviews differs considerably, the REG suggested splitting the review of the consolidated and annual plans into two separate work areas to simplify the resource estimation process. Ultimately, the REG identified 21 work areas -- 14 technical areas that pertain to work specific to the CPD grants management process and six "generic" work areas that most, if not all, HUD offices perform, such as human resources management, general administration, and HUD improvement projects.[2] In reviewing the revised task lists and estimates, it may be possible to consolidate the work areas further, but these groupings worked well as a starting point.

The REG's progress was slow as it struggled to understand the relationships between the data factors and to perform the unfamiliar task of estimating resources. During the two-day session, the REG was able to complete only five work areas, although two of them were quite large. The REG agreed that Philadelphia staff would attempt to complete the resource estimates for the remaining tasks on their own and consult with the Academy and OB staffs by phone as needed.

The Philadelphia staff worked as time permitted, and an Academy staff member returned to Philadelphia on May 5-6 to help them. The Philadelphia staff finished estimating resource needs in mid-June.

Revising the Resource Estimates in Philadelphia

Using the resource estimate grid, OB and Academy staff entered the data into the revised Excel spreadsheet and then "rolled up" the resource estimates for the tasks to compute the annual staff years needed to perform the work in each work area (Appendix 7 lists estimates by work area). Academy staff sent these data to the Philadelphia staff to further refine the time estimates needed for each work area.

THE DENVER HOC PROCESSING AND UNDERWRITING DEMONSTRATION

Preliminary Work in Denver

The process for the Denver HOC Processing and Underwriting Division (PUD) demonstration mirrored the one in Philadelphia, but incorporated the lessons learned. An Academy staff member held a preliminary meeting with the HOC director, deputy director, and director of operations to explain the proposed resource estimation and allocation system and the PUD staff's role during the demonstration. At the meeting, the HOC deputy director also helped refine a list of proposed work areas that would be used during the work definition phase of the project. The work areas included the six "generic" areas that the Philadelphia CPD staff had identified (such as human resource management and general administration).

Defining the Work in Denver

The Denver WDG met on April 14-15, 1999, with Academy and OB staff facilitating the session. Unlike the CPD grants management process, where the entire staff is involved in all the technical work areas, much of the work in the PUD is handled by specific branches within the division. To use staff most efficiently during the work definition phase, the HOC developed a schedule for the two-day period where only those staff involved in a work area participated in the discussion. At least one branch chief and one or more PUD staff members discussed each work area. All participating PUD staff members attended an opening session at which Academy and OB staff explained the goals and objectives of the resource estimation and allocation system and the demonstration process. One representative from the Philadelphia HOC attended, as did staff from headquarters Office of Single Family Housing.

Academy staff recorded the discussion using a laptop computer and a flip chart. Using the flip chart helped the PUD staff during the work definition process as they often referred back to other work areas during the discussion. For the generic work areas, the PUD staff worked from the task lists the Philadelphia CPD staff had generated, making a number of modifications.

Academy staff refined the task lists from the Denver WDG and sent some of them to PUD staff for comments. Since the Denver staff did not have enough time to review all of the task lists prior to beginning the resource estimation phase, much of the task revision and consolidation occurred during the REG meetings. The PUD staff identified a total of 27 work areas for the division -- 21 technical work areas and the six generic work areas.

Estimating Resources in Denver

Based on the CPD demonstration experience, Academy and OB staff agreed that they needed to facilitate the entire resource estimation process. This would permit the Academy staff to serve as a better resource for the HOC and thus enable the process to move faster. There were two, two-day meetings with the REG: May 13-14 and June 2-3, 1999. The REG consisted of three branch chiefs and, occasionally, a staff member when needed. A representative from the headquarters Office of Housing’s budget office and another from Single Family Housing also participated in the first of the two meetings.

The Denver PUD resource estimation process was different from the Philadelphia CPD process in three distinct ways.

1. Because a significant amount of the PUD’s workload is performed by contract staff, particularly in case processing and endorsement and mail operations, the REG also developed estimates for the contract operations. PUD staff advised Academy and OB staff that at least once a year, usually because of a funding issue, a contract will lapse and PUD staff must perform the work normally done by contract staff.

2. While CPD staff estimated the time the CPD director devoted to the grants management activities, Denver did not develop resource estimates for the amount of time the HOC director, deputy director, or PUD division director spent on PUD activities. They have less of a line role over day-to-day activities than do senior CPD field staff.

3. During the resource estimation phase, the Denver staff estimated the proportion of time a task requires the low, average, or high time estimates.

During the four-day period, the REG was able to complete the resource estimates for all 27 work areas. One thing that facilitated the process was that PUD's contracts for case processing and mail are based on daily workloads. PUD staff were able to use that information to help them compute the time estimates to complete tasks. OB and Academy staff rolled up the PUD estimates to determine the number of staff required to perform the annual workload in each work area and gave the data to the Denver staff to revise as needed.

THE HEADQUARTERS DEMONSTRATION ACTIVITIES

The headquarters offices selected for the demonstration project corresponded with the CPD and HOC field demonstration sites. In examining the work, Academy staff and OB believed that headquarters-type work, such as policy development, field coordination, and handbook updates, was not well-suited to the task identification and resource estimation process that Philadelphia and Denver used. They agreed to test a different methodology, which the staff termed "workload distribution." Work definition was kept at what had been termed the "work area" level for the Philadelphia and Denver efforts, with some illustrative supporting tasks. Academy staff used headquarters functional statements as the basis to prepare tentative work areas for each office participating in the demonstration.

The headquarters offices identified some non-technical work areas, but did not use the six "generic" work areas developed in Denver and Philadelphia. Academy and OB staff then met with the various offices separately to discuss the tentative work area lists. Using the input from these meetings, Academy staff revised the work areas. The number of work areas ranged from 10 in CPD's Office of Technical Assistance and Management (Technical Assistance Division) to 20 in the Office of Insured Single Family Housing (Home Mortgage Insurance Division). Appendix 9 contains a sample of a work area for one headquarters office in the demonstration.)

Instead of asking headquarters staff to estimate the resources required to complete tasks in a work area, Academy and OB staff developed the work distribution approach, where all staff members in each office in the demonstration completed survey sheets to estimate the percent of time they spend on each activity (Appendix 9). Staff were told to distribute their time so that it added to 100 percent, regardless of whether that work was spread over a 40-hour workweek or longer. Essentially all estimates were based on the professional judgment of headquarters staff, though some of these estimates were based on the perspective of historic workload. Academy staff prepared a composite of the individual responses from each office and used this as a basis for discussion with office management.

After examining and discussing the staff time distribution, Academy staff asked office directors whether they believed their current staffing levels were adequate or whether they thought they needed a different number of staff to get the work done. Their opinion on staffing adequacy was based on their experience and informed judgment.

DEMONSTRATION RESULTS

The demonstration activities in headquarters and the field provided numerical resource estimation data and information about the methodology used to develop those estimates.

Estimated Resource Requirements

For the CPD grants management process, the first roll-up of all work areas totaled 28.6 FTE positions. The Philadelphia staff reviewed the data by work area and revised the time estimates for several tasks, which droppedthe overall estimate to 23.1. This included 19.1 FTE for program and support staff and four for senior managers, one of whom also serves as a community builder. Information about Philadelphia estimates is in Appendix 7.

The Denver PUD's first roll-up of the work area estimates totaled 105 HUD FTE and 52 contractor staff. When they reviewed the supporting data, Denver staff decided this number was higher than what they needed. Thirteen of the work areas required no changes. And in the remaining work areas, the PUD staff needed to revise estimates for only a small percentage of the tasks. Most of the changes were minor. For example, in Area 9, Post Endorsement Technical Reviews, Task 17, Confirm Contractors' Findings, the PUD staff increased the percent of the average hours by .2 and decreased the percentage for the high hours by the same amount. Because the annual workload for that task is 3,120, the change decreased the FTE by .35.

There were only a couple of tasks where the original resource estimates significantly affected the staff year requirements. For example, the original staff estimates for Area 3, Technical Assistance, Task 3, Response to Phone Inquiries, was 28 staff years, about half of the PUD's total on-board staff.[3] For a task where the annual workload volume is well over 200,000, an estimate that is only 5 minutes too high can increase the annual FTE estimate by 10. To obtain a better estimate for this task, the PUD staff kept records for a few days on the length of their phone calls with customer inquiries. A similar review of the remaining tasks resulted in a revised FTE estimate of 77.1 HUD staff and 36.3 contractor staff (total of 113.4) to perform the division's work. This included 3.52 FTE for tasks that the staff identified as work that was needed, but not currently done. After all review, the final estimate was 67.5 FTE for HUD staff and 36.2 for contractors, for a total of 103.8. (See Appendix 8.)

Interpreting Resource Estimates

The annual FTE estimates for Philadelphia and the Denver PUD are higher than the current on-board staffing. In Philadelphia, however, they are consistent with staffing levels in recent years. While there were 15 on-board staff in mid-1999, there were 26 in 1995 and 23 staff in 1997. CPD's workload has also changed in the last few of years. For example, the Grants management System and its accompanying automated system (Grants Management Process) are part of HUD's integrated approach to field management. The Consolidated Annual Performance and Evaluation Report (CAPER) is one aspect of it, and CPD field prepare the CAPER by evaluating the annual comparative reviews that they now perform for each entitlement grantee. The CAPER was one of the Philadelphia work areas, and staff estimated that the report requires about two FTE annually. Overall, field staff now work with more nonprofit organizations and other small organizations, and many of these groups need a great deal of assistance.

In CPD offices, as in others throughout HUD, there have been a number of process and system changes during recent years that are designed to reduce some aspects of staff workload. For example, the grants management data CPD staff enter into the central system will assist in remote monitoring. However, the concept of the "new HUD," where automated systems and streamlined processes will significantly reduce the time for some tasks (or eliminate them completely) is not fully in place. Until then, and until HUD's clients learn the best ways to interact with the new processes, it is not clear that changes to work methods or automation improvements have reduced workload in proportion to staffing decreases.

There are other influencing factors that can move these estimates up or down. For example, HUD staff have not had to estimate resource requirements for many years and there were little or no data available to assist them as they tried to estimate the amount of time required for each task. As a result, some of the time estimates may be slightly higher than the time a task requires. Also, one of the principles underlying the proposed resource estimation model is that the system identify the time an experienced staff person *should* take to complete a task, not the amount of time currently being spent on the work. In many instances, the amount of time now taken to perform a task is less than the amount of time the REG members believe should be taken to perform the task properly.

In the Denver HOC's PUD, the estimated level of resources needed was about 33% above the current staffing level, while in CPD/Philadelphia, the estimate was 75% above current levels (that percentage may be reduced somewhat). A number of factors may account for this, one of them being that the workload may not have not changed greatly during the two years when the office lost 11 staff through attrition. However, the PUD is also able to account for some workload increases by using contractor funds for processing-type activities. There are not such funds available for CPD field offices, and the work does not really lend itself to contracting out.

In headquarters, all offices indicated that the combination of staff attrition and inability to hire replacements had resulted in situations where work that should be done was not being preformed. For example, one CPD and one Single-Family Housing group said they had little or no time to work on handbook revisions because of emergency project work. The Office of Lender Activities and Program Compliance's Quality Assurance Division cannot effectively manage the nationwide QA program in part because they have to spend so much time answering questions from private citizens, HOCs, and senior management. After reviewing the survey results, the CPD headquarters office managers believed that they needed a total of five additional FTEs to carry out their assigned work; Housing's office managers indicated a need for a total of six more. These needs were based on their professional judgment as to current staff levels as they related to workload.

HUD should not assume from the demonstration results that the total resource estimates for the department will mirror those in the demonstration. Until all work areas are identified for all offices within HUD and resource estimates are rolled up, HUD will not know what the resource estimates for the entire department will be. Due to reorganizations and improved work processes, some offices may require fewer staff than are currently assigned.

LESSONS LEARNED ABOUT DEFINING THE WORK

- Process- or knowledge-based work can be in headquarters or the field.

Though the Academy staff had expected variations in the type of work, they were more common than anticipated. For example, the contractor work in the Denver PUD is process-based but the staff work is largely knowledge-based. And while headquarters work is considered to be largely knowledge-based, there is substantial process-based work, such as the Special Needs Assistance Programs.

- Although field staff described tasks in great detail, when they had to estimate resources they combined a number of them.

Defining the work is a critical part of a resource estimation process. Though it may not always be practical to estimate resources at the task level, the time the field staff spent thinking through their work was an essential first step to develop the resource estimates. Over time, as staff grow more accustomed to defining work and estimating resource requirements, the task lists may grow even shorter.

- It is important to have field and headquarters staffs participate in one another's work definition and resource estimation processes.

Because it has been so long since HUD did bottom-up task definition and resource estimating, staff may not be fully aware of the related work their counterparts perform. When, for example, a headquarters senior manager better understands the complexity and volume of a field office's work, that individual can better support resource requests or help the field office reconsider some work steps and possibly reduce the resources needed. Unfortunately, the process the Academy and OB used in headquarters did not lend itself to having field staff involvement, either during the work definition or resource estimation phases of the demonstration.

- Having a large number of staff, staff from different offices, or staff from different levels within the same office in the work definition or resource estimation sessions can slow the process. The process was also faster when one individual worked with the Academy and OB staff and called in other staff to supplement their perspective as needed.

Two offices with similar responsibilities may do some things alike and some things differently, and this can lead to involved discussions. This would be an important component of a reengineering project.

However, for the demonstration project's purposes of defining work and estimating resources, focusing on how one location did business simplified the process. This information can then be shared with similar offices and revised to develop a standard or norm for work functions throughout the department. Conversely, as HUD designs an approach to fully implement a resource estimation system, it may well be worth the time and effort to have staff from multiple locations participate in sessions. The key factor would be to recognize that differences are acceptable (some offices may manage programs others do not), and to focus larger-group meetings on areas of commonality.

- Defining work across HUD may identify opportunities to improve some work process among offices that have similar responsibilities.

HUD will ultimately need to determine if some work methods are better than others so that resource allocation is equitable across offices that do similar work. A detailed work definition process provides HUD with information that may identify work process inefficiencies and opportunities to improve how work is done. However, any resource management system will need to be sufficiently flexible to either give offices the opportunity to add or alter tasks or to have some other means to account for work not included in a common list of work tasks for an office.

- While there needs to be consistency in the data themselves, the process for defining work can differ by type of office or with staff preferences.

It is important to devise a method for recording work task definition that captures a complete picture of the task and the processes used to perform it. This could include using a laptop computer or flip charts. This is especially important for complex or new areas of work, where flow-charting can be useful. Another item to consider is that the first time an office does a bottom-up work definition, staff need to be able to approach it in the way that makes most sense to them.

LESSONS LEARNED ABOUT ESTIMATING RESOURCES

- The manner in which staff provide resource estimates should be as simple as possible and should permit them to directly relate tasks and workload.

In the resource estimation model, all tasks in a work area should be related to one primary work unit, preferably one whose workload is captured in an existing automated system. To speed the estimation process, however, staff need only focus on the task, volume of work, and time needed to accomplish it rather than a mathematical relationship between a primary work unit and the task.

- When the time to perform a single task varies, it is important to obtain the staff's estimates of how frequently a task falls into each of the time categories – low, average, and high.

In most cases during the demonstration, a predetermined distribution across low, average, and high hours did not adequately reflect the time needed to address the workload. For example, assuming that it took the high amount of hours for one-third of the time a task is done could vastly overstate estimates. However, it may be possible to develop some standard distributions within offices or among tasks, based on experience. For example, if only the largest county in a field office's territory takes the "high" amount, that information could be applied to all tasks related to that county.

- Resource estimation needs to be done with a facilitator.

After HUD staff gain more experience in developing resource estimates, and when the process is more a part of HUD's way of doing business, it may be possible for office staffs to work independently. However, in the near future, HUD should expect to have someone knowledgeable about resource estimation work with the staff. The process can be tedious and staff are conscious that their daily work still needs attention, but a facilitated session can move faster than independent efforts.

- The estimation process will move faster if the information can be aggregated during the Resource Estimation Group meeting.

One of the reasons the resource estimation phase of the project moved more slowly than Academy and HUD staff would have liked was that HUD program staff had to review material several weeks after they had developed the estimates. The back-and-forth nature of the review (which of course had to accommodate work demands in the program offices) was spread over many weeks. The REG itself needs to focus on estimating the volume of work associated with a given task, who does it, and how often they do it. This is information only the program staff can provide, and to have them do calculations related to this information would force them to spend much more time working with the facilitators. However, the facilitator team could include an individual who would remain outside the estimation meeting and would do these calculations and "roll up" the data as the program staff complete estimates for other work areas. Periodically, the REG could review and comment on the aggregated data. While there might be some need to refine it after the REG meeting, the timeframes for the overall process would be greatly reduced.

- There are tradeoffs between the time to gather data and the level of information on which to base decisions.

The headquarters process (workload distribution) to define and estimate resources moved considerably faster than the field demonstration sites. However, the headquarters staff only provided information on how they apportioned their time across work areas and did not define tasks or develop detailed estimates on how long it took to perform individual tasks. Although the headquarters process enables staff to identify tasks or work areas that are not receiving much staff time, it does not identify the amount of time needed to get the work done. However, a work distribution method does appear to be a viable method for collecting data on general administrative and management functions in both headquarters and the field, as well as for other functions that do not need to be broken down into discrete actions. Whenever HUD selects this method, managers will need to recognize that estimates about additional staff or travel fund needs will be based on staff judgment that will likely be sound, but there will be less data to demonstrate the basis for these judgments.

- Developing contractor estimates for PUD provided a clearer picture of the division's resource requirements.

The demonstration in PUD helped quantify the number of contractor staff required for its operations and emphasized how heavily PUD staff rely on having those contracts in place and funded. However, the demonstration process did not discuss any criteria for contracting out work other than there are not sufficient staff to perform the work. Nor did the demonstration attempt to identify additional areas that might be candidates for contracting operations.

SHARING THE DEMONSTRATION RESULTS WITH THE HUD ADVISORY GROUP

On June 22, 1999, the Academy and OB staffs met with the HUD Advisory Group to discuss the demonstration process and results to date and obtain input for revising the model. Only a limited amount of resource estimation results were available to present at the meeting because the Academy and OB staffs were continuing to roll up and refine the data. However, there was a general consensus that the approaches taken in the field and headquarters were appropriate models for a departmentwide resource estimation and allocation system. The Advisory Group concurred that multiple resource estimation techniques are needed – no single approach will be appropriate for the entire department. The group also wanted information on the costs to develop and maintain the system.

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[1] Non-work time, such as leave, was to accounted for by using 1,800 hours as the basis for one FTE.

[2] While the Philadelphia staff decided there were 21 work areas, they did not develop estimates for Work Area 10 – Managing Competitions Other than McKinney Programs. While no estimates are shown on related tables, the work area is still considered valid.

[3] According to a PUD branch chief, there were 58 staff working for the PUD at the time of this study. This figure included the division director and a number of staff assigned to the PUD from other HOC offices but not officially on the PUD roles.

CHAPTER FIVE
FROM DEMONSTRATION TO IMPLEMENTATION

The Department of Housing and Urban Development has actively supported the demonstration of a new resource management system. Departmentwide implementation will require continued leadership, discipline, and a substantial resource commitment. The information generated during implementation should enable HUD to identify the resource levels required to carry out its programs and better position itself to set priorities for what can be accomplished with a given level of resources.

There are several broad areas the Academy panel believes that HUD needs to consider with respect to implementing a resource management system:

- top management's role
- setting priorities at given resource levels
- using a resource management system as a tool
- the process of implementation

TOP MANAGEMENT'S ROLE

Strong management commitment is essential to effect change. Some HUD staff believe that any resource management system will require staff time to maintain it, but will not provide a link between program needs and resources made available. Only the secretary, deputy secretary, and other members of the top management team can dispel this perception by using the information from such a system to develop and defend its annual budget requests and make allocation decisions.

Since the mid-1980s, there has been little bottom-up input for resource estimation, and since the mid-1990s there has been no department system to collect and analyze staff use data. HUD's program assistant secretaries make resource allocation decisions based on mandated staff levels.

The Academy panel recommends that:

- **The department adopt the resource management approach demonstrated during this project, one that bases estimates and allocations on the level of work and the specific location where it is to be performed.**

- **The secretary announce and play a highly visible role in the implementation of a resource management system, specify the roles of individuals and offices, and actively support the process – in part by providing the needed resources to implement the system.**

- **The program assistant secretaries retain full authority for assigning staff to fulfill their work responsibilities, and use the resource management system to submit internal budget requests that reflect their offices' workloads and needs.**

- **The responsibility to implement and maintain the resource management system be with an office that reports directly to the secretary or deputy secretary, and this office should also include the strategic management function to reinforce the relationship between resource management and strategic planning and management.**

Only such a high-level placement will provide full authority and responsibility to implement the system and ensure there are adequate resources (staff, contract assistance, and travel funds) to do so. In its June 1999 report entitled *GPRA in HUD, Changes for the Better*, the panel recommended that the HUD staff who manage the strategic management function (and thus GPRA responsibilities) should be located at a high level within the department and should have cross-cutting capability. Implementing the recommendation in this report would ensure that these two essential functions are coordinated.

SETTING PRIORITIES

HUD cannot ignore its statutory responsibilities and simply state that work will remain undone unless there are more resources. However, during the demonstration and other phases of this study, it was clear that many staff believed they did not have the time, travel funds and, less often, training to accomplish all of their work well. They also were frustrated because their inability to perform some tasks created additional work in other areas. For example, if an office could not conduct regular training programs for lenders or new entitlement grantee staff, it received literally hundreds of extra calls per month to answer questions from individual lenders or local government officials.

It is commendable that the department wants to carry out its many and varied responsibilities with reduced on-board resource levels. However, it is also important to realistically consider what can and cannot be done within the resources available. To do otherwise creates unmeetable expectations or places unrealistic burdens on staff. Telling Congress that all work cannot be completed effectively with existing resources is not a comfortable stand to take. As Congress continues to add programs for HUD to manage with no additional staffing resources, the department needs reliable data that can show resources to perform work are available, are not available, or can be available only if more work is outsourced.

The Academy panel recommends that HUD:

- **Include all its responsibilities in a bottom-up work definition and resource estimation system.**

- **Identify what work can be done with current resource levels, what tasks must be done less often, not done, or contracted out if they are to be accomplished.**

- **Use the results of the demonstration project as the basis for setting priorities (and thus allocating resources) in the offices that participated in the demonstration, and continue this practice as other units go through the process.**

- **Develop and implement substantive criteria for contracting out work that include factors other than staff limitations.**

- **Complete the design and implementation of a resource validation system that accurately measures what staff do.**

HUD has strategic and annual planning processes that operate in conjunction with GPRA, and these have outcome-oriented goals. Individual units' business and operating plans reflect these goals, though there was discussion in the Advisory Group as to whether the BOPs reflect all the work the department does. The work definition requirement of a resource management system will give HUD a clearer picture of all the department's work and whether it can be cross-walked to the business and operating plans and resources available to accomplish them.

> **The Academy panel recommends that HUD link the resource management system to the GPRA process by using the defined tasks as part of the process to develop outcome-oriented business and operating plans and, from them, the annual performance plan. If needed, HUD should revise the business and operating plans to include work not currently covered in them.**

The resource management system is a tool that will permit HUD to most effectively manage toward its strategic and operating goals. It can also provide input into the planning processes in that senior managers may learn that HUD staff spend more time on certain work and less on other work. While this may mean work processes can be reengineered, this information may also be useful in setting or adjusting priorities.

RESOURCE ESTIMATION AS A MANAGEMENT TOOL

When HUD has the results of its investment in an effort that defines work and the resources needed to accomplish it, the department will be better able to apply the best practices of one organization to others doing like work. It will also be able to request and allocate needed resources based on where work is done, recognizing that the department may see a need to rearrange staff resources to better match work and people.

- **The Academy panel recommends that the secretary make it clear that he is willing to realign staff, perhaps even between major mission areas, to ensure that staff are placed where the level of work most requires them.**

The incentive for honest input to a resource management system or faith in the results it generates will only occur if HUD's managers and staff believe that it produces realistic information and benefits. Those benefits need not be perceived solely as additional staff or other resources. When CPD and Housing staff saw the "rolled up" data from the resource estimation demonstration process, they had information previously unavailable. When a validation system is in place, they will be able to see how staff spend time compared to the department's stated goals and objectives.

The Academy panel recommends that HUD:

- **Create an environment in which staff can provide accurate information on the resources they need to do their work and can accurately report what they are able to accomplish, even if the information is not in synch with current staffing levels or expectations.**

- **Ensure that there are clear links between the information HUD staff input into the system and how that information is used to develop staff estimates and allocations and establish the travel and contract budgets.**

- **Organize work areas so that the tasks, workload, and resource estimates clearly relate to the performance indicators in HUD's annual performance plans.**

- **Develop and use information from the resource management system to assist in routine management activities so that managers can see direct benefits from the system.**

As staff define work and estimate resources, HUD will have a clearer picture of how things are done under *HUD 2020 MRP*, which includes the use of centers to consolidate some types of work.

Managers also will be able to see where the creation of the community builder and public trust officer positions has affected how staff approach and accomplish work. A key component in *HUD 2020 MRP* implementation was HUD's decision not to close offices or make directed staff reassignments and, for the short term, this is understandable. However, this decision has led to reduction-by-attrition with apparently little ability to adjust staff capability, as needed, in some offices. **The Academy panel recommends that HUD:**

- **Use early and continuing data from its new resource management system to assess the balance of work and available staff resources in all its offices, but especially those that have experienced severe levels of attrition over the past few years.**

- **Reassess the issues of: 1) reassigning staff on a directed basis to those offices or centers that have clear staffing needs; and 2) whether it needs to maintain 81 field offices.**

- **Develop and implement a policy to move people or work to or from offices experiencing workload and staffing imbalances.**

THE PROCESS OF IMPLEMENTATION

Many aspects concerning the process of implementing the resource estimation component of the system are discussed in the "Lessons Learned" sections at the end of Chapter Four. However, the panel believes that some process points will particularly affect the accuracy or speed with which the system can be implemented, and they are highlighted here.

Defining work and estimating needed resources will be time-consuming, especially the first year when the process is unfamiliar to most staff. HUD management should recognize that implementing the system will take time away from HUD's programmatic work and will become an additional staff duty.

> **The Academy panel recommends that HUD be prepared to invest substantial on-board or contractor resources, especially in the first phase of system implementation.**

Much of the implementation cost is the time of HUD program and administrative staff. As implementation proceeds, HUD should develop common sets of tasks for given functions (such as the CPD grants management process and a HOC's processing and underwriting function) and organizations that do similar work can build on other HUD organizations' task lists. HUD should establish commonly accepted task dictionaries and HUD should establish a periodic schedule to update them.

The Academy panel recommends that HUD invest the time to develop and maintain accurate task dictionaries and estimated time-per-task data so that these can serve as tools in future years.

The Academy staff found HUD staff to be very articulate in expressing what they did and why and how long it took to do it. Some might think it would speed the process to simply design forms and have staff provide paper or electronic input in some organized fashion or to use a common data-gathering approach throughout HUD. However, because this is the first time HUD staff have done bottom-up resource estimation in many years, the department needs to be systematic in data collection and facilitate the process through which it is collected. A self-directed process is more easily put aside to respond to daily work needs.

The Academy panel recommends that HUD:

- **Use facilitators who invest time to learn an organization's work and, as needed, make preliminary site visits. This will speed the process, produce more complete results, and ensure consistency in how work volume and times are estimated.**

- **Recognize that the work itself may affect the kind or level of data collected. It is important to be flexible. There is no single approach that will meet the needs of all HUD offices and functions.**

While the resource management system will require an annual investment, the first one to two years will be the most labor intensive. To emphasize its importance and minimize the impact on staff during development, HUD should consider such practical things as:

- Ensure that an office is not in the middle of a major workload event when HUD schedules them to participate.

- Invite some recently retired staff to work under short-term contracts to assist in offices when the work definition and resource estimation tasks are underway.

CONCLUDING OBSERVATIONS

The panel believes that Congress' requirements as expressed through GPRA have created an important incentive to develop a resource management system, and its concerns about HUD's inability to assess resource needs should be answered. HUD's leadership has indicated an openness to develop realistic resource estimates and validate how resources are used. If HUD can develop a system that provides meaningful information with a relatively low burden on staff to maintain it, HUD will have a strong management tool. It will take a serious and sustained commitment to make this happen.

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THE RELATIONSHIP BETWEEN PROGRAM NUMBERS

HUD has seen a steady growth in the number of programs it manages since its inception. In 1984, the first year for which the Academy staff could readily identify a number, HUD had 54 programs.

In 1994 and 1998 Academy staff assembled an inventory of HUD work by reviewing program lists prepared by various organizations. In 1994, the starting point was information from the Office of the Inspector General and input from the Office of Policy Development and Research. These organizations again provided input in 1998 (PD&R information is presented on the HUD Web page). The Academy staff also sought information from the Office of General Counsel and examined the sections of the Catalog of Federal Domestic Assistance that pertained to HUD programs

1994 PROGRAM INVENTORY

In its 1994 report, the Academy panel's tabulation of HUD statute-based programs was 206 with an additional 43 that were either formed through the secretary's discretion or other initiatives. Though some did not award funds or serve as vehicles for insurance, HUD staff had noted that many of these "inactive" programs continued to require staff effort.

The Office of Inspector General reported in late 1994 that HUD had 240 programs and that the mix of programs and activities was disproportionate to HUD's resource levels.[i] HUD management responded to the 240 number by saying that there were:

115 active programs (60 of which the department deemed critical to its mission)
10 ongoing functions
29 inactive programs
37 programs it proposed for termination
31 FHA insurance authorities (which HUD did not define as self-standing programs)
17 regulatory authorities
15 support functions
13 programs not on the OIG list
1 program on the list for which HUD had no programmatic responsibilities

Leaving out the last one on the list, this totals to 267 programs, functions, or major activities.

COMPARING 1994 AND 1998 PROGRAM NUMBERS

In 1998, the Academy staff recategorized its 1994 list to make it comparable with the OIG's newest list of programs, which showed that HUD had 340 programs in 1998. After sorting that material and adding additional information, the Academy staff sought input from staff in HUD's program offices to verify which programs were still active, which involved custodial work only, and which were not in use at all.

The Academy looked at the different opinions on "what is a program" and developed its own overall number of 283 as of the summer of 1998[1]. This list may not seem totally accurate to others. In a few cases, HUD program staff may have said that something on the IG list was not a program, but the Academy included it on its list. For example, there is a program called "Bridal Registry" through which a couple can let family and friends know where to make a "wedding gift deposit" that can be used as part of a downpayment on a house. According to staff in the Office of Housing, this is not a program, but rather a component of the overall mortgage insurance program. However, in talking to community groups, they thought of the Bridal Registry as an important component of HUD's efforts to make housing more affordable. One part of the Academy's criteria for inclusion was "if it is perceived as a program by HUD's clients, it is a program."

Table 1 shows the comparison between 1994 and 1998 programs is shown in Table 2-2. It presents an overall increase of 39%, with divergent amounts of change among the major HUD organization.

Table 2-2
Increase in HUD Programs
1994-1998

Program	1994	1998	% Change
CPD	50	61	22
Fair Housing	10	19	90
GNMA	--	4	--
Lead Based Paint	3	4	25
Multifamily	34	52	35
Native American*	3	16	--
Policy Research/Development	--	14	--
Public Housing (non Section 8)**	53	38	(28)
Section 8	15	24	60
Single Family	38	51	34
Total	206	283	39

* In the 1994 data, some NAP programs were considered as part of CPD or PIH programs, though they should not probably have been so considered. In addition, NAP programs have been wholly reorganized by legislation since this table was prepared. That information will all have to be updated for the 1999 report.
** Some of this reduction is because of the NAP programs being more thoroughly counted. Academy staff will ensure consistency and there will probably be no decrease.

Some of the new programs involve large sums of money or serve large numbers of people, and some do not. However, all of them have to be administered, which can mean writing regulations, educating

[1] Academy staff will add the programs HUD has added in the past year prior to issuance of the final panel report.

potential recipients on a program's purpose and how to apply for funds, overseeing fund distribution, and monitoring performance.

No informal list will be perfect, and not all HUD programs would be appropriate to list on the HUD web page or in the Catalog of Federal Domestic Assistance. However, HUD would probably benefit from having its own single list of programs.

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[i] Office of Inspector General, U.S. Department of Housing and Urban Development. *Opportunities for Terminating, Consolidating and Restructuring HUD Programs* (Washington, D.C.: December 1994).

RESOURCE ALLOCATION APPROACHES USED IN HEADQUARTERS PROGRAM OFFICES

Housing

Housing, which absorbed the largest share of recent staff reductions, liked the RAGS system and wanted to maintain it. When that was not possible, it wanted to maintain the Housing components of the system. However, this proved impractical.

Housing has developed the Staff Profile Information & Resource Utilization Tracking (SPIRUT) Data Warehouse, which capitalizes on data already in various HUD data systems. SPIRUT does not provide data on work done by contractors, and it will initially provide workload data only on staff who work on SF programs. While it will provide useful data, SPIRUT will not be able to provide a one-to-one mapping of staff utilization to workload indicators. However, it does permit Housing to look at volume of work (such as Single Family cases processed) and track workload and staff variations.

Public Housing

PIH contracted with two consulting firms to develop the Field Office Resource Utilization Model (FORUM) in 1994. It can be used as a resource allocation model that combines the resources needed for the four primary functions in the PIH Field Offices: 1) performance oversight, 2) compliance assurance, 3) technical assistance, and 4) other on-going activities.

To estimate the total resources required for each field office, the activities performed in an office were identified and compared to the resources (hours) the model estimated were required to complete each activity. Total staffing requirements were computed by multiplying the resource estimate by the volume anticipated for that activity in a specific office. Field staff participated in developing the workload indicators.

The model was tested but was not implemented to develop staff resource estimates. In part this is because it was too expensive to maintain. In addition, one field office PIH manager said that when they used FORUM the process said that the office needed 200 people to do its work. There were fewer than 50 fewer staff in 1998.

Community Planning and Development

Though its field staff do not provide individual workload data, CPD looks at aggregate figures through its Workload Analysis Reports. For each field office, these examine the number of people served, total dollars administered, number of formula program projects administered, number of formula and other projects administered, and number of communities covered. These data are used, at an aggregate level, in *allocating* available staff to the field.

To keep in touch with field office needs, each quarter CPD brings six or seven field staff into headquarters for one week. They discuss workloads, services from headquarters, and training needs.

CPD borrowed one of the Office of Budget analysts to develop an approach for a Workload Measurement Task Force. The plan detailed a team's work steps and how to involve staff throughout CPD to provide input on the work they do and how they do it. If implemented, it would have created a data-based system that would specify work units and time to accomplish them. The proposal was not acted upon due to other changes underway at the time. A reading of the proposal shows that it would have involved a substantial resource commitment to develop the work measurement system; it is not clear how much time would have been required to regularly collect data.

Fair Housing and Equal Opportunity

To reduce its staff to the levels assigned to FHEO, each of the Program Operations and Compliance Centers and components of the Fair Housing Enforcement Division with an FHEO function was given worksheets that showed current staff levels. On these sheets were proposed staffing levels, based on some business process reengineering that FHEO had done. These included time estimates for a wide range of tasks, which were developed by FHEO program staff with input from the field. Headquarters and the field continued back and forth discussion and finally developed an analysis that showed FHEO was short 220 positions overall.

In a 1998 discussion, FHEO staff said the office determined that it could contract out relatively little work (19 positions) because investigative work is an inherently governmental function. To accomplish its work, FHEO looks at what is mandated by law (such as Title VIII work, which has a 100-day completion requirement) and that which is not mandated (such as Title VI Civil Rights Laws). That which is not mandated may not get done. In addition, other HUD program divisions will now do some of the civil rights work.

FHEO is developing the Fair Housing Resource Management System (FHRMS), not yet used to arrive at estimated staffing requirements. For each program or part of a program, it describes such factors as the kind of activity, what variables affect workload, whether the activity is planned or on-demand, all of which are used to arrive at an estimate of the staff hours needed per unit.

Appendix 4

PRIVATIZING SOME OF HUD'S WORK

As part of HUD's mid-1990s management reforms, a 1996 departmentwide study examined seven steps to "make HUD run like a business," and aspect dealt with privatizing some of HUD's work.[1] The stated task was to "coordinate the development of a comprehensive plan for contracting out, in-sourcing,[2] and transferring program and support functions to improve efficiency." The Project Action Team that did the study followed five steps in their process:

1. Conduct a review of program and support activities in coordination with principal staff

2. Identify those activities which are core to HUD's mission and cannot be terminated, contracted out or in-sourced[3]

3. Identify functions which can possibly be eliminated, in-sourced, contracted, or transferred to other agencies including interagency agreements

4. Identify major functions that are already contracted out and approximate the contract costs and number of contractor employees

5. Submit an action plan to the deputy secretary/secretary for approval

The Project Action Team noted that in fiscal year 1995, HUD contracted out $676 million in work and the FTE equivalents were 7,035.[4] At the time the team did its work, HUD had 10,915 employees (excluding the Office of Inspector General and Office of Federal Housing Enterprise Oversight). The team concluded that a total of 120 functions and 6,376 additional FTEs could potentially be privatized or outsourced, and identified the work performed by 2,404 employees as the "best candidate functions."

Using a guide the *Basis For Identifying Contractible Work And Inherently Governmental Work,* which incorporated existing OMB guidance on identifying inherently governmental work, the team separated HUD's major functions into categories of contractible and inherently governmental work. Of all HUD functions and positions reviewed, the team identified 6,388 FTEs as performing work that could be outsourced, and 4,334 FTEs as performing inherently governmental work.

The team identified 10 criteria for future use in selecting from among all the possibilities those functions considered to be best candidates for outsourcing.

These included

1. Potential performance improvement and mission effectiveness

    - Is it likely that outsourcing (irrespective of cost savings) would directly or indirectly result in significantly improved performance in terms of quality, timeliness and overall responsiveness to HUD customers?

2. Program policy control

    - Would outsourcing make programmatic policy development more or less difficult?
    - How would outsourcing impact on policy management and control of policy implementation?

3. Potential cost savings

    - Is it likely that an outsourcing effort would result in cost savings either by contracting out or by retaining the function in-house with improved/reegineered operations?

4. Management controls

    - Would outsourcing weaken or strengthen financial management/internal controls?
    - Would outsourcing decrease or increase the risk of occurrence of a publicly embarrassing incident to the Department?

5. Degree of contractibility

    - Is the function specifically listed on Attachment A to OMB Circular A-76?

6. Feasibility for an employee stock option plan (ESOP)

    - Does the function meet the attached NPR identified four ESOP criteria?

7. Separability

    - Can the contractible function be reasonably separated from any associated inherently Governmental work?

8. Experienced vendors

- Are there sufficient reputable vendors possessing the skills to perform the services at the desired quality levels?

9. Sufficient volume/scale

   - Does the function include sufficient workload/FTE to justify the work required to outsource and for efficient and effective contract monitoring

10. Contract monitoring

   - Is that function one which can be reasonably monitored, without extraordinary efforts or costs?
   - Can monitoring be performed without multiple and frequent visits to numerous sites?

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1 Operational Efficiency and Effectiveness Project Action Team, *Report to the Secretary and Deputy Secretary*, July 1, 1996.

2 Includes the following activities: transfer of functions and staff to or from other government entities; Inter-Service Support Agreements with work performed by federal employees; and franchises with/between federal government entities.

3 Includes direct conversion to contract; contracting out via the OMB Circular A-76 competitive process; elimination of function by transferring workload; Employee Stock Ownership Plans/Programs (ESOPs) and FED COO-OPs, and piggy-back contracts with private contractors through other departments/agencies and Inter-Service Agreements.

4 Operational Efficiency and Effectiveness Project Action Team, *Report to the Secretary and Deputy Secretary*, July 1, 1996. Appendix Five.

SELECTED FEDERAL, STATE, AND LOCAL RESOURCE MANAGEMENT APPROACHES

As part of the Academy panel's effort to design and demonstrate a resources estimation system for HUD, the Academy stuff examined other federal agencies' use of resource estimation/allocation systems. This appendix presents a synopsis of this background work.

FEDERAL DEPARTMENTS AND AGENCIES

Department of Agriculture
Rural Development Work Measurement Standards

The Under Secretary for Rural Development heads the primary Federal agency responsible for improving rural America's housing, business, and infrastructure, includes Rural Housing Service (formerly Farmers Home Administration), Rural Business and Cooperative Development Service, and Rural Utilities Service. Financial services offered include making and servicing direct loans, guaranteeing and servicing the loans of a bank or some other financial institution, and making and servicing grants.

The agency developed with contractor assistance (Unisys, Grant Thornton LLP) a Work Measurement Standards (WMS) and Budget Work Standards (BWS) for loan and grant programs for the three major Service Agencies within Rural Development. A total of 63 programs are covered, which are involved in making and servicing direct loans, guaranteed loans, and grants. Budget Work Standards represent total labor hours associated with specific activities, providing a rationale for appropriate number of FTE required to administer Rural Development programs.

The Work Measurement breaks a program down into its core tasks or accomplishments, and then each accomplishment into work steps. For example, steps required to deliver a loan or grant include: Processing an application, Reviewing construction on-site, and Setting up a payment schedule.

Based on surveys, Work Measurement Standards and Budget Work Standards are then developed. The Budget Work Standard builds on the Work Measurement Standard by adding Outreach Time, a National Office Factor, a Finance Office Factor, and a Non Work Factor (e.g., vacation, sick leave). The Work Measurement Standard is first calculated using an activity-based approach and adding travel time, and then to this figure is added outreach and a national office factor (and finance office) to arrive at a overall Budget Work Standard. There is no established time/man hours reporting system.

Two time figures were obtained: the survey respondent's actual time for a given work step, and the estimated time required to perform the work step if all regulations were followed. However, respondents did not admit to taking any shortcuts on regulations, and differentiation was eliminated. Travel time was also calculated, and total time equaled work time plus travel time.

Then field visits with on site facilitated discussions were used to validate the survey data.

One "Lesson Learned" reported by the agency was that by focusing on loan and grant delivery, other essential activities were missed such as Technical Assistance and Outreach, Customer Service that do not result in a loan or grant, and Program Support that is not easily linked to a specific loan or grant.

The information is updated each year by hiring a contractor who sends out a survey to the state offices for current information.

Contact: Margaret Indellicatte, Budget Staff, tel. 690-1658, fax 720-1981,and Senney Turner, ADP, tel 703-235-5519 or Mary Radinitz at 202-690-0651, fax 720-1981.

Department of Commerce
Patent and Trademark Office,

In support of its basic mission to issue patents, PTO uses The Patent Process Production and Pendency Model to assess impacts of various staffing levels on patent production, and total time required. The number and age of patents pending is the major measure used to measure effectiveness, for example a goal of 75 % of all pending patent applications will be handled in a 12 month cycle time by the end of FY 99, and 100% within 12 months by end fy 2003.

The model shows specific workload volumes, production levels and pendency estimates PTO is anticipating in its projections. The model relies on the results of the Patent Application Location Monitoring (PALM) system, which is a record of all on-going work broken down into process categories and total time spent on each, and completed units. Specifically, the model performs the following tasks:

1. Projects anticipated staffing levels of patent examiners for each of the future years modeled, taking into account anticipated hires, attritions, and promotions.

2. Predicts how many production units can be expected to result from the work of those examiners whose FTEs are devoted to examining regular U.S. patent applications. Production units are calculated by averaging the number of first actions and disposals done by the examiner during a certain period of time. This production figure, patents per FTE, is reviewed frequently to see if goal levels are being achieved.

3. Estimate the number of first actions and disposals that can be expected to result from the projected production units.

4. Calculate how many Supervisory Patent Examiners will be needed to train and supervise the anticipated number of examiners each year.

5. Estimate the number of patents to be obligated for printing during the year (cost driver) and the number to be issued as patents during the year (inventory/pendency driver).

6. Estimate pendency each year under three categories:

    - Pendency from filing to First Action.
    - Pendency from filing to Allowance or Abandonment (disposal).
    - Pendency from filing to Issue or abandonment (the main pendency goal measurement).

PTO is user-funded, but Congress and OMB still control FTEs; PTO can show very clearly the effects on workload of various levels of funding.

Contact: John Mielcarek, Director, Office of Patent Programs Control, Patent and Trademark Office, Crystal Park, Arlington, Virginia, 22202. Tel.: 703-305- 9214, fax703-308-5548

Department of Defense, Defense Logistics Agency

The Performance Labor Accounting System (PLAS) is a windows-based, local area network-served accounting system that permits employees to charge their time each day to the many mission administrative/support processes performed by the Defense Contract Management Command (DCMQ. Entries under the system use three major categories: organization, work process (for example, pre-award survey), and program (for example missile program). All employees from the Commanding General down enter data, thus ensuring both HQ and field representation. In direct time such as meetings are coded to the process and program. Process improvements are encouraged to help offset the imbalance of a 50% staff downsizing against a 35% workload reduction.

PLAS offers a single data base that can provide vital cost information for a number of DCMC decision making tools, including activity Based Costing (ABC), Unit Cost, GPRA, Performance Budgeting, and Return on Investment (ROI). According to Don Peterson, PLAS Program Manager, PLAS data is critical to DLA's application of performance budgeting as well as internal assessment operations. Typical work processes, each with its own code, are:

031 01 Contract Receipt, Review and Post Award
081c 01Mandatory Product Audits
081b 01Contract Delivery Surveillance

Manufacturing Process Surveillance
Non-mandatory Product Audits
Authorizing/Accepting Shipments
Product Integration
Product and Manufacturing Assurance
Proposal Analysis
Contract Close-out

Examples of program codes include:

NA 002 AFATDS-Advanced field artillery tactical data system
NA003 CRUSADER-Advanced field artillery system: future armored resupply vehicle.
NA018 LONGBOW HELLFIRE- HELLFIRE missile system
NA027 SMART-T-Secure mobile anti-jam reliable tactical-terminal

Uses of the data collected by PLAS include: baseline unit cost data including Activity Based Costing (contact Lester Kuhl, tel 609-338-3703, fax 609-338-3717); budgeting resources and tracking results in terms of performance budgeting (contact Marcia Case, tel. 703-767-2394); performance planning and program management(contact Jim Russell, tel. 703-767-2459, fax 703-767-6587); and performance based assessment model which relates contractor performance to hours spent, i.e., the resources allocation question (contact Frank Lalumiere, tel. 703-767-2396). FY 1999 is the baseline year to gather unit cost data which will be used to set performance targets. Those areas who are in significant variance from the "norm" will be asked to justify such variances.

Contact: Don Peterson, Program Manager, fax 773-825-5949, E Mail: dpeterson@dcmdc.dla.mil, tel 773825-6590, PLAS Program Management Center, 10601 W. Higgins road, P.O. Box 66911, Chicago, IL 60666-0911.

Department of Justice
Federal Bureau of Prisons

The Bureau of Prisons (BOP) Staffing Guidelines System is a work/resource models in support of new prison construction, which has grown substantially in the last 10 years. The BOP HRM staff developed the staffing guidelines for the various functions with in a facility; The 1998 Budget also shows some of the staffing guidelines. The system determines S & E resource requirements only.

The system utilizes a workload based model for each function required to run a facility (e.g., example given of proposed new facility, 1152 beds medium security at FCC Beaumont Texas, food service will require 18 FTE's, $781,000, broken out by position). Close monitoring of both the prison population and results of using the models to adjust where necessary, and request new prisons as soon as required.

The cost per inmate is monitored 4 times a year closely, and when it is trending upward, immediate attention is given as to why and corrective measures taken.

Models vary depending on type of facility, (i.e., prison camp, maximum security prison, etc.) Requirements driven by models are not the final word; they are subject to negotiation in that a new facility can be phased in.

Use of this approach enables BOP to maintain creditability with House and Senate Appropriations Subcommittees by returning funds in mid-year when it becomes apparent that due to construction delays, target dates will not be met-funds can be used elsewhere that year.

If there is a shortfall in required S & E funds, adjustments can be made by slowing the opening so the population is "ramped up" in phases, with proportionally lower resource requirements.

The staff to prison population ratio is watched closely, as this ratio affects such things as assaults, homicides, and suicides. Key personnel for a new facility are drawn from existing prison staffs so a new facility gets experienced personnel who can train lower graded new hires.

Program specialists work with the Annual Performance measures, and are able to change spending projections based on different resource availability. In the central office, indicators do not show the affect of staffing levels. The regions have tried different staffing levels based on the four different categories where the employees are based.

The Capacity Plan Committee (made up of staff from facilities, health, correctional programs, etc.) meets once a week. They work on the Capacity Plan, which shows by year the number of male/female inmates, security levels, and population projections. This plan is being constantly redefined, and any changes determine the resource needs. From the plan, they have a good idea of what they need when the budget process starts in the spring.

Once the budget is enacted, the budget execution staff work on resource allocation. For example, if a new prison is being built, a request from that region on staffing levels goes to the Resource Allocation committee for funding. The S&E for existing staff is given to the 6 Regional Directors from the central office, based on formula. The Regional Director then decides how to allocate.

Contact: Robin Beusse, Chief Budget Development, 202-307-3237, fax 202-616-6225.
Federal Bureau of Prisons, 500 First St. N.W. Washington, DC 20530 Syed Zaidi, Budget Development Analyst

Department of the Treasury

Financial Management Service

The Resource Utilization Improvement Project was undertaken to integrate and coordinate the major efforts and initiatives within the Department's Financial Management Service (FMS) related to the effective management of funding, full-time equivalents (FTEs), and planning…Once a complete list of activities is compiled, the activities are ranked in prioritized order based upon criteria established from the Strategic Plan. Savings are realized as we identify low priority programs receiving priority funding.

Contact: Thurman Carey, Director, Finance Division, Financial Management Service (FMS), tel. 202-874-7110, fax 202-874-6533.

Department of Treasury
U.S. Customs Service

Customs has developed and implemented an Activity Based Costing (ABC) pilot cost model which included the development of a survey using the list of activities defined by the users of the Commercial Air Passenger Process (PAX) to gather data on the time employees spent performing PAX sub-processes and activities, and use of a management reporting tool for the cost model by using Pilot Lightship Decision Support Software for accessing cost information. Designing the cost model for the pilot required the identification and definition of the sub-processes and activities performed in the Commercial Air Passenger Process. Major processes (activites) are Passenger Process, Trade Compliance Process, Outbound, and Mission Support.

Examples of Sub-processes include:

- Informed Compliance
- Administrative Processing of entries and declarations
- NAFTA verification
- Personnel management and development

This was accomplished through discussions with managers and employees. First, the Passenger Process Owner identified in the sub-process, then an information gathering session was held with Chief Inspectors and Process Owners from twelve airport locations across the country to list and define the activities under those sub-processes. This session was critical not just for gathering information for the model, but for educating the potential benefits to be derived from the CMIS. Using the list of activities defined earlier, a survey was developed to gather data on time spent by inspectors performing those activities on the job.

Later, this information was collected using a statistical sampling method in which quarterly surveys were sent to a random group of employees for all locations where Passenger Processing Activities were performed. It is envisioned that during Phase III of the Cost Management Information System (CMIS) project the ABC Model will be expanded to incorporate the remaining core processes and all other aspects of the Customs Service. The goal is to formulate a system that encompasses all costs that the Custom Service incurs. This will be accomplished in much the same manner as that for the pilot. Facilitated information gathering sessions will be held with representatives of the other processes and their supporting offices to identify their activities and outputs. Resources will then be mapped to these activities within the model using surveys and other methods to be defined later.

Contact: Linda Dornish, Tel 927-5909, fax 927-1818, Jo Cohen 927-0310. U.S. Customs Service, 1300 Pennsylvania Ave.NW Room 4-5A, Washington, DC 20229

Department of Veterans Affairs
Veterans Benefits Administration

The Department of Veterans Affairs Loan Guaranty Service guarantees mortgage loans for veterans and service persons. The guaranty allows veterans to obtain home loans with favorable loan terms, usually without a downpayment. Loan Processing and Loan Service and Claims functions are being consolidated from 43 offices to nine Regional Loan Centers (RLCs) and one secondary Loan Servicing center. Consolidation of loan servicing was tested in Denver and Cleveland in 1996. These tests demonstrated that consolidation can be accomplished and save resources while maintaining or improving service to veterans and program participants. Consolidation will result in improved services to veterans at reduced costs through greater efficiency and economies of scale. Service to lenders and loan servicers will improve through greater consistency and responsiveness. When completed, the restructuring will result in savings of 20 to 25 percent of the FTE previously conducting these functions, a total of 185 FTE.

VBA uses both a work measurement and work standard system as well as a work productivity system. Work units are defined in hierarchical fashion, going from basic motions, work processes, reportable work units, end products to workload indicators. For example, a workload indicator of “Properties acquired” consists of the following tasks: 1, assign broker; 2, review and authorize payment for voucher; 3, obtain title; and 4, demand eviction.

The work standards are validated by periodic performance studies of some of the larger field offices whereby for a period of 20 days, workers are signaled throughout each day by means of a bell ringing to report what work code (known as observation codes) they are engaged in at that time. For example, the observation codes for Properties Acquired run from #800 through # 814, and each one represents a portion of the tasks described above.

VBA is moving to a balanced score card approach to measuring performance. Categories will be: speed, accuracy, unit cost, customer satisfaction, and employee development. Unit cost as a major performance factor has encouraged VBA to utilize activity-based costing, and the Philadelphia Insurance Center has been used as the first pilot effort there. Plans project that the ABC will be used extensively in the future for resource allocation purposes.

Contact: Keith Pedigo, Director, Loan Guaranty Service, 273-7331, fax 275-3523

Department of Health and Human Services
Social Security Administration

The Cost Accounting System (CAS) tracks workload count data (receipts, processed and pendings); workyear utilization and productivity indicators by workload, for some support functions; and summary data by major line of work, program, component organization, and Agency as a whole. The unit cost and productivity data from the CAS, in combination with measures of program effectiveness, are used to determine where the agency should focus limited resources for improving its service delivery performance as well as comparing alternative courses of action to assess costs versus benefits.

Contact: George Kullgren, Director, Office of Program Budget, tel. 410-965-3081, fax 410-965-5486; Jeff Hild, Director, Office of Program and Accounting Operations, tel. 410-965-0613, fax 410-966-6552.

APPROACHES OF SELECTED STATES

California

California has a number of disparate methods that change from office to office. The Franchise Tax Board uses a "factory approach," which has time and motion people feeding into unit costing, which feeds into performance targets. They can do this because it is a single site with the same activity (processing returns) every year, at the same time every year.

Contact: Bob Smith, Department of Finance, 916-322-2263

Montana

Each state office has a different system, and there is no standard way of doing resource estimating. Several offices are activity-driven, with workload output and indicators. There is some time reporting, but only at a very low level.

Contact: Dave Lewis, Budget & Programming Planning Office, 406-444-3616

Michigan

Michigan does not utilize an activity based approach to budgeting.
Contact: Don Moore, Budget Director.

Commonwealth of Virginia

Each state agency must submit a strategic plan that outlines their initiatives and objectives, and what resources they need to achieve them. The agency submits a budget decision package, which is essentially a request for additional funding. In the package the agency must identify their methodology for determining their needs, and identify performance measures and targets to be met with the new resources. Budget analysts review the methodologies used.

Different methods are used within each agency. The most sophisticated is the Medical Assistant Services, which uses activity-based management. This process, as described in documents sent by Mr. Hill, consists of the following steps:

Step 1 Obtain agency expenditures
Step 2 Develop overhead rate
Step 3 Obtain staff salaries
Step 4 Prepare business process & activity listing
Step 5 Prepare effort spreadsheet
Step 6 Prepare cost worksheet
Step 7 Prepare Input/output worksheet

Many other agencies use program evaluation studies, with varying survey instruments such as random moment sampling.

Contact: Herb Hill, State Planning and Evaluation Manager, Department of Planning and Budget, Commonwealth of Virginia, 200 Ninth St rm 418, Richmond, VA 23219, tel 804-786-7455, fax 804-225-3291.

Oregon

No state agency does activity-based costing. Agencies are either caseload driven, or base their resource needs on historical data and current expenditures. Some agencies have looked into ABC, but have not had the time, money, or staff hours available to set up that kind of system.

Contact: Sheila Baker, Office of Budget and Management, 503-378-3106

Missouri

Missouri's resource estimation system was characterized as "highly unscientific." They do not use an activity-based approach, but go by previous experience. Some agencies attempted starting activity-based approaches, but that has created a dispute between the managers and the staff. The staff felt like the managers were not appropriately identifying the work tasks, or understanding the amount of work that is required per task.

Contact: Lee Capps, Director of Personnel

SELECTED LOCAL GOVERNMENTS

City of Indianapolis

The city of Indianapolis has implemented activity-based costing in an effort to better identify the costs of city activities and services on an outcome basis. Thus, lawn-mowing is measured on a cost per acre, street maintenance on unit cost per lane mile, and garbage collection as cost per household. These cost elements are used in competitions to see what services will be contracted out, and thus provides an incentive for city workers to improve their cost ratios in order to win the competitions. The costs include the depreciation of buildings, and equipment, fixed costs (e.g., idle equipment and building space), and citywide overhead costs that are incorporated into the production costs of a unit of output.

Fairfax County, Virginia

Several methods of workload counting and time reporting are used:

- employees estimate at the end of the day the time they spend on various activities
- a supervisor will estimate the amount of time each employee spends on certain activities.
- the personnel resource information system can be used, and tracking via a job number the time spent on particular activities.

EXAMPLE OF THE DATA COLLECTION TOOL USED IN FIELD OFFICE RESOURCE ESTIMATION

This sample grid is for the Philadelphia CPD Grants Management Process.

Area 6 Annual Community Assessment (ACA) Primary Work Unit: ACA
Task 1 Review all material for each grantee Annual workload: 36
Work Unit: Review of documents Done 1 Priority 1

Title	Vol	# Involved	Low Hours	% Low	Avg Hours	% Avg	High Hours	% High
CPD Rep								
Prg Mgr 1								
Prg Mgr 2								
Dep Director								
Director								
Program Asst								
Secretary								
Fin Analyst								
Other								

The estimation process required HUD staff to consider a number of factors for each task identified, and these were captured on the above grid. The grids used did not specify the % of time spent in the low/average/high categories. However, that information was collected in Denver and was collected after-the-fact in Philadelphia. Future resource estimation sessions would want to capture the percentages.

At the top of the grid

- a primary work unit for each Work Area
- a work unit for each task (could be the same as the primary work unit or might not be)
- how often the task was undertaken during a year – the annual workload
- the priority level assigned to each task (1 - 3, with one being top priority)
- whether the task was fully done (1), partially done (2), or not done at all (3)

On the grid itself

- volume. How many times a staff member did a task
- which staff in the office were involved in doing the task (listed down the left margin)
- how many staff with that job title were involved in doing the task once
- the amount of time it took each staff member to do their part of a task once

  This could be shown as varied amounts of time because of, for example, the client, dollar value, or some other factor

- what percentage of time the task took the low number of hours to complete, what percentage it took the average hours, and what percentage it took the high hours.

Appendix 7

CPD Resource Management Pilot

Grants Management System

Philadelphia Office

Staff Time for CPD Reps, Financial Analysts, Support Staff, Systems Analyst

Area	Time Spent (in staff-hours)	Estimated Workload	Estimated FTE
1. Consult with Communities	11.07	36	0.22
2. Review Consolidated Plans	60.35	7.2	0.24 *
3. Review Action Plans	18.91	36	0.38
4. Program Management - Entitlement Grantees	244.93	36	4.90
5. Perform CAPER	110.12	36	2.20
6. Do Annual Community Assessment	20.86	36	0.42
7. Do Annual Comparative Review	19.76	36	0.40
8. Analyze Best Practices	0.35	36	0.01
9. Manage McKinney Competition	13.25	75	0.55
10. Manage Other Competitions	No info received.		
11. Program Management - CGRs	16.51	200	1.83
12. Interact with Public	5456.32	1	3.03
13. On-site Monitoring - Entitlement Grantees	347.25	11	2.12
14. On-site Monitoring - CGRs	81.56	20	0.91
15. Human Resource Management	277.05	1	0.15
16. HUD Improvement Projects	297.06	1	0.17
17. General Administration	387.05	1	0.22
18. Manage TA	29.83	37	0.61
19. Do Analytical Briefings/Reports	1221.38	1	0.68
20. Interact with HQ	118.43	1	0.07
		Subtotal	19.10
Add two program managers.			2
Add deputy director			1
Add director			1
		Total FTE	23.10

* Consolidated Plans are required of grantees on a 5-year cycle.
Next round of submissions is in FY2000.
Used 7.2 plans per year as a way to average time over 5 years.

Denver HOC Processing and Underwriting Staff Estimates				
HOC PROCESSING AND UNDERWRITING WORK AREAS				
		~~*Staff*~~	~~*Contractor*~~	~~*Total*~~
Test Case Processing		2.63	0.03	2.66
Case Processing and Endorsement		5.90	17.33	23.23
TA to Lenders, Appraiser, Builders, and others		18.80	0.00	18.80
Endorsing HUD Employee loans		0.00	0.00	0.00
Client Training		1.74	0.00	1.74
CHUMS and FHA Connection		1.69	0.08	1.77
Mail and Log In		0.00	5.19	5.19
GTM Activity		8.52	1.78	10.30
Post-endorsement Technical Review		5.11	10.48	15.59
Appraisal Monitoring and Sanctions		4.57	0.96	5.53
Field Office Interactions (with 22 FOs)		0.62	0.03	0.65
Internal HUD Planning and Management		0.34	0.00	0.34
HO Interaction		0.42	0.00	0.42
Interaction with CBs		0.22	0.00	0.22
Interaction with the Public		0.78	0.00	0.78
Briefing and Reporting		0.07	0.00	0.07
Interact with Auditors and IG staffs		0.06	0.00	0.06
HUD Improvement Projects		1.16	0.00	1.16
HRM		2.44	0.00	2.44
General Administration		0.44	0.00	0.44
PUD/CONDO		2.48	0.34	2.82
Waiver Requests		0.16	0.00	0.16
Partial Releases		0.15	0.00	0.15
518 (a) Process		0.26	0.00	0.26
203 (k) Rehab Loans		8.37	0.00	8.37
Repair Escrow		0.42	0.00	0.42
Master Appraisals		0.23	0.00	0.23
TOTAL		67.55	36.22	103.77

TASK LIST

DATE

NAME

JOB TITLE

DIVISION
OTAM, Technical Assistance Division

SUPERVISOR

NO.	Technical Assistance	PERCENT
1	**PREPARE TO ISSUE NOFA**	
	- Identify national technical assistance needs	
	- Issue guidance and instructions to field offices for each year's T.A.	
	- Develop requirements for national competition for T.A. providers, including review of programs' needs list	
	- Prepare requirements for T.A. NOFA	
2	**ISSUE T.A. NOFA**	
	- Issue T.A. NOFA	
	- Conduct satellite broadcasts for providers	
	- Provide field office training via satellite broadcasts	
	- Receive T.A. applications, following logging in procedure	
	- Furnish copies to field offices	
3	**DEVELOP T.A. AWARDS**	
	- Review regional documentation on potential T.A. applications	
	- Work with field offices on potential T.A. awards	
	- Develop T.A. $ apportionment for each field office	
4	**ISSUE T.A. GRANT AGREEMENTS**	
	- Issue T.A. Grant Agreements	
	- Conduct debriefings for unsuccessful applicants	
	- Recommend awards for national competition for T.A. providers	
5	**MANAGE T.A. GRANTS**	
	- Review and process drawdown requests	
	- Review feedback on T.A. performance	

	- Closeout T.A. contracts						
	- Develop T.A. policy, coordinate with OGC, as appropriate						
	- Manage national T.A. awards						
	- Coordinate cross-cutting field T.A. issues						
	- Oversee national T.A. resources, dealing with problem providers						
	as required						
	- Provide field guidance re: administering T.A. grants						
6	**OTHER INITIATIVES**						
	- Administer National Community Initiative and oversee resulting						
	awards						
	- Monitor CPD contracts, i.e., MIS, S&E, Youthbuild						
	- Respond to Office of Secretary's requests for T.A. help						
	- Submit Annual Procurement Plan and other Contract Review and						
	Management Board (CRMB) requrements						

	Director	Staff #1	Staff #2	Staff #3	Staff #4	Staff #5	Staff #6	Staff #7
TECHNICAL ASSISTANCE DIVISION								
PREPARE TO ISSUE NOFA	0.10	0.00	0.10	0.00	0.00	0.00	0.00	0.00
ISSUE T.A. NOFA	0.02	0.00	0.20	0.05	0.00	0.20	0.00	0.00
DEVELOP T.A. AWARDS	0.03	0.00	0.20	0.15	0.20	0.20	0.00	0.00
ISSUE T.A. GRANT AGREEMENTS	0.20	0.00	0.20	0.20	0.20	0.20	0.00	0.00
MANAGE T.A. GRANTS	0.25	0.00	0.25	0.60	0.30	0.00	0.00	1.00
OTHER INITIATIVES	0.15	0.00	0.05	0.00	0.30	0.10	0.00	0.00
PREPARE TO ISSUE TA CONTRACTS	0.20	0.05	0.00	0.00	0.00	0.30	0.05	0.00
DEVELOP TA CONTRACT AWARDS	0.00	0.05	0.00	0.00	0.00	0.00	0.20	0.00
MANAGE TA CONTRACTS	0.04	0.70	0.00	0.00	0.00	0.00	0.75	0.00
MANAGE NON-TA CONTRACTS	0.01	0.20	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00