

PUBLIC HOUSING
OPERATING COST STUDY
HARVARD UNIVERSITY
GRADUATE SCHOOL OF DESIGN

Draft Research Design

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Public Housing Operating Cost Study

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Executive Summary

Overview

Under a Cooperative Agreement with the United States Department of Housing and Urban Development (HUD), Harvard University's Graduate School of Design (GSD) is conducting a study (Cost Study) to determine the cost to operate well-run public housing. The results of this Cost Study are intended to inform the development of a final rule implementing a new Operating Fund formula for allocating public housing operating subsidies.

There are approximately 1.286 million units of federal public housing, administered by some 3,200 public housing authorities (PHAs). Total operating expenditures for public housing are approximately \$5.4 billion annually, of which \$2.2 billion is paid for with rents and other local revenue, and \$3.2 billion is funded with federal operating subsidies.

In April 2001, GSD published a document entitled *Discussion of Research Issues and Initial Recommendations for Review* (April Report) that outlined GSD's recommended research approach to the Cost Study (this discussion document, as well as other related materials, may be found at www.gsd.harvard.edu/phocs). GSD then conducted a series of regional public meetings soliciting comment (see Appendix A for the dates and locations of these Regional Public Meetings). Based on the input received on the April Report, inclusive of written comments, public meetings, and other discussions with industry groups, GSD presents this *Draft Research Design*.

Comments on the *Draft Research Design* may be directed to:

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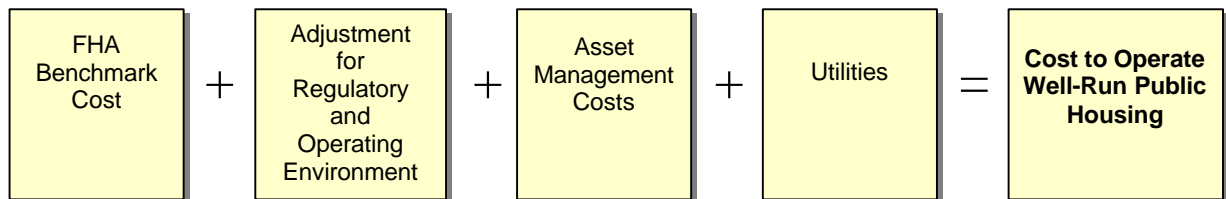
Approach

In the April Report, GSD recommended that the non-utility cost to operate public housing be benchmarked to the cost of operating federally-assisted multifamily rental housing with mortgages insured by the Federal Housing Administration (FHA).¹ FHA insures approximately

¹ As explained in the April Report, the choice of FHA assisted properties versus other assisted housing (such as assisted housing financed by state housing finance agencies) was made primarily because of the FHA database's size, accessibility, number of property variables, etc. The choice was not made based on any perceived differences in characteristics between FHA assisted properties and assisted properties that are financed without FHA insurance.

1.0 million units of federally-assisted rental housing.² This housing is part of a government program in which owners of the housing are committed by contract to rent units to households with incomes below a certain level and at rents specified by program rules. The owners of FHA properties are required to submit annual financial statements to HUD. GSD recommended developing a model that would estimate the cost to operate each public housing property as if it were FHA assisted housing. Using multiple regression techniques, this model would identify determinants of costs according to key property characteristics, e.g., building type, location, percentage of large-bedroom units, etc. The results would then be adjusted to reflect reasonable costs associated with public housing's unique operating and regulatory environment, as determined through case studies of selected PHAs. Finally, GSD would add to this result the costs of asset management and utilities, as determined through supplemental research. Exhibit E.1 illustrates this approach.

Exhibit E.1: Cost Study Approach



Industry Comments

Appendix B includes a list of the major comments received on the April Report, along with GSD's response to those comments. The comments can be grouped into seven main areas, as follows:

- concern that the Cost Study is not doing enough to study “actual” PHA costs (as opposed to studying FHA assisted housing costs);
- concern over the number of case studies to be conducted and the protocol for those case studies;
- concern over the use of FHA-assisted housing as an appropriate benchmark;
- concern over the recommendations for a new financing program for public housing;
- concern over, and request for additional information regarding, the actual costing model and how the FHA database, and other potential databases, will be used;
- concern that GSD may not have sufficiently captured the regulatory and other differences in managing public housing; and

² FHA also insures 0.5 million units of unassisted housing. As explained in the April Report, GSD plans to use the data on these unassisted properties to understand the relationship between certain property characteristics and costs; however, the “benchmark” cost produced by the model is one of operating FHA assisted housing.

- concerns of a miscellaneous nature, from the request for an appeal mechanism to information on the costs of state public housing.

Discussion

GSD's recommendation to benchmark the cost of operating public housing to the cost of operating FHA assisted housing was based primarily on the issue of circularity (see April Report for fuller discussion). The Performance Funding System (PFS), now called the Operating Fund, determines public housing funding levels and has been in place, essentially unchanged, for 25 years.³ PFS was based on the operating costs of a sample of 56 "well-run" PHAs in the early 1970s.⁴ As a result, public housing spending levels are dictated by a formula that has no real relationship to performance or, necessarily, to operating need. PHAs have accommodated their operations to the spending levels allowed under this system. To analyze PHA spending patterns would only lead back to the formula, without explaining whether, perhaps, PHAs have been systematically underfunded, overfunded or appropriately funded over the years. Given this situation, it seems critical to anchor operating costs to the verifiable operating costs of over a million housing units serving a similar population and operating under similar regulations.

GSD does not believe that there is any way around this issue of circularity. Therefore, it recommends moving forward with the proposed benchmarking approach and modifying it based on input received, as explained below. At the same time, and also based on industry feedback, GSD has expanded the scope of the case studies as well as the number of agencies to be studied. Although not mentioned in the April Report, GSD indicated at the regional public meetings that it was contemplating conducting between 6 and 12 case studies. GSD now expects to conduct between 20 and 30 case studies.

A number of requests were made by industry groups to review the case study protocols before they are finalized. GSD agreed to such a review in its April Report. To allow for even greater participation by the industry groups in the development of the case study protocols, GSD has decided to conduct a series of case study pilot sites. Research team instructions for the case study pilot sites are included as Appendix C. GSD plans to meet with industry groups following these pilot sites to share observations and accompanying recommendations for the final protocols.

With respect to whether FHA assisted housing is comparable to public housing in terms of population served, location, building characteristics, or other features, GSD believes that FHA assisted housing is sufficiently similar to public housing to build a reasonable costing model. Moreover, although the statistical techniques that GSD plans to use do not require the costing database to contain a distribution of property characteristics that exactly match the distribution of characteristics in public housing, the properties in the FHA database do match up very well to the public housing stock. For example, the median household income in FHA assisted housing averages 26.2 percent of the local median and in public housing it averages 24.2 percent. Still, to help evaluate the regression model's predictive abilities, GSD will field test the model at a sample of not less than 50 public housing properties. At these sampled properties, GSD will employ qualified property management professionals to prepare independent budgets for each of the

³ Technically, the PFS was replaced by the Operating Fund as a result of the 1998 Quality Housing and Work Responsibility Act. However, the mechanics of the PFS remain essentially unchanged, pending the completion of the Cost Study and subsequent rulemaking.

⁴ *The History and Overview of the Performance Funding System: Evaluation of the Performance Funding System*, May 18, 1979, with clarification provided by the Office of Policy Development and Research, HUD, June 2001.

properties without knowledge of what the model-predicted costs might be and without reference to what the current expenditures on these properties are (even if the PHA is able to provide project-based cost accounting for these properties, the developed budgets will be prepared anew). The developed budgets will then be compared against the model-predicted costs. Among other objectives, this field testing will indicate whether certain public housing property characteristics have not been sufficiently captured in the model and, therefore, whether refinements to the model may be necessary.

With respect to GSD's discussion in the April Report of a new financing program for public housing (Chapter Six, Building a Platform for Broader Change), GSD received strong support for the ideas in this chapter from multifamily housing experts who work outside of public housing but less support from within the public housing community. A number of respondents questioned why this discussion was included in the April Report and wondered whether these ideas reflected a bias in the Cost Study. There are a number of reasons why GSD included this chapter in the April Report. First, these ideas grew out of focus group discussions with both smaller PHAs and with financial institutions. Many of the smaller PHAs expressed the belief that they could operate more effectively if they were treated more like other assisted housing, both in terms of regulations and funding. Second, one of the fundamental components to successful property management is the ability to plan for the orderly replacement of building systems. While the establishment of replacement reserve accounts is now technically permitted in public housing, few PHAs can afford to fund such activities because of the need to address capital backlog needs. Implementing a debt financing program for capital improvements would allow PHAs to address their backlog needs and fund replacement reserves. In the long run, such changes would almost inevitably lead to a more effectively managed public housing program and a better preserved physical stock. That being said, the model-building process that is the core task of the Cost Study is entirely independent of the notions explored in Chapter 6 of the April Report. As discussed in more detail later in this document, GSD will examine the ideas for developing a new financing program more fully by studying this issue at a select number of agencies.

With respect to the methodology for the costing model, and how the FHA and other databases will be used, GSD has expanded the discussion in this document to explain the steps and processes for developing the costing model in more detail.

Finally, with respect to whether GSD had adequately captured the regulatory similarities and differences between public and assisted housing, GSD has prepared a new, more extensive chart on the differences between these two programs (see Appendix D, Comparison of Federal Rules and Regulations in Operating Public and Assisted Housing). Based on industry feedback, this chart contains items not previously included in the April Report, e.g., the requirement to allow for pets in family public housing. This chart is one of the primary tools that will be used during the case studies; as with this entire document, GSD is seeking comment on this chart before the case studies begin. Several comments were received responding not to the differences in regulations but the fact that public housing may be subject to differing standards of enforcement or that, as public bodies, PHAs are often required to implement these requirements more extensively than private operators. One of the purposes of the case studies is to examine more fully the context of local implementation.

Industry Review and Participation in Cost Study

As requested, GSD is examining ways to foster wider industry participation as the Cost Study progresses.

GSD shares progress reports at monthly public meetings in Washington, D.C. These meetings are typically attended by representatives from the major public housing trade/membership associations, as well as other interested parties. GSD is recommending, and soliciting comment on, the establishment of a research working group that would include representation from industry and related groups. The purpose of the working group would be to provide more in-depth feedback to GSD as the Cost Study progresses. For example, GSD envisions several meetings to review the initial regression model results or the observations from the case study pilot sites.

GSD has also been asked to reconvene the Operating Fund Negotiated Rulemaking committee that was originally organized to develop a new Operating Fund formula and that had recommended that a cost study be conducted.⁵ Although GSD has no authority to reconvene or reestablish the Operating Fund Negotiated Rulemaking committee – that authority rests solely with HUD – GSD believes that the aforementioned research working group could serve much the same purpose. Further, GSD has prepared this draft research design so that the work produced through the Cost Study will be useful to any future negotiated rulemaking efforts.

Organization of Report

The remainder of this report is organized into five chapters.

- **Chapter One – Developing Benchmark Operating Costs for Assisted Multifamily Rental Housing**, discusses the recommended methodology for developing the costing model using, primarily, the FHA database.
- **Chapter Two – Case Studies**, discusses how the GSD intends to conduct the case studies of selected PHAs that will be used to adjust the model-predicted costs for the different regulatory and operating environments between public and assisted housing.
- **Chapter Three – Debt Financing for Capital Improvements**, discusses the additional research to be conducted to explore further the feasibility of converting to a financing program for public housing that is more like other assisted housing.
- **Chapter Four – Utilities**, discusses GSD’s on-going feasibility study on benchmarking utility costs to norms in private housing and the implications for operating subsidies.
- **Chapter Five – Project Schedule**, includes a schedule for the completion of tasks under the Cost Study.

⁵ See March 16, 1999 *Federal Register Notice* establishing the Negotiated Rulemaking Committee on Operating Fund Allocation.

CHAPTER ONE

Developing Benchmark Operating
Costs for Assisted Multifamily
Rental Housing

Chapter One

Developing Benchmark Operating Costs for Assisted Multifamily Rental Housing

This chapter describes how GSD will proceed to develop a model to determine the benchmark for the non-utility cost of operating assisted multifamily rental housing. This benchmark cost will be used, along with adjustments described in subsequent chapters, to determine the cost of operating well-run public housing. The treatment of utility costs is discussed in Chapter Four, Utilities.

1.1 Conceptual Framework

A. Benchmarking the Operating Costs of Multifamily Housing Developments

The Cost Study will develop a model that uses the operating costs of FHA-insured multifamily rental housing to produce benchmark operating costs for public housing.⁶ The premise behind this approach is that there is an underlying core cost for operating any multifamily rental housing. Most management and maintenance functions are common to multifamily rental housing, regardless of ownership and tenancy. However, operating costs, considered on a per unit basis, will vary from property to property in some fairly well understood ways.

In the reconnaissance phase of the Cost Study (described in the April Report), GSD gathered information on the sources of variation in operating costs in multifamily housing. GSD tapped many sources of information, as follows:

- GSD conducted a review of the literature on the determinants of operating costs in multifamily housing, and specifically on the operating costs of public housing;
- GSD carried out field research in four cities that compared the costs of public housing with the costs of multifamily assisted housing;
- GSD conducted focus groups with experts from the public housing and private multifamily housing industries to discuss the factors that influence operating costs;
- Real Estate experts who are members of the Cost Study team provided advice based on their experience as housing managers;
- GSD conducted a number of site visits to individual PHAs and examined various PHA operating statements;
- at meetings in Washington, D.C., and around the country, public housing industry groups and individual public housing administrators provided input based on their experience as public housing managers; and

⁶ The FHA database includes all properties with FHA-insured (or formerly FHA-insured but now HUD-Held) mortgage loans, as well as nonprofit housing for the elderly developed under Section 202. Most of these properties have five or more units at a single site, but there are some scattered site properties.

- preliminary data analysis, based on cross-tabulations of several databases on multifamily housing, suggested ways in which property characteristics (including location) may affect costs.

The exploration of multifamily rental housing databases confirmed the basic premise that there exists a core cost of operating multifamily rental housing. While there is a wide range of per unit operating costs for individual properties, large databases, populated by sets of properties that overlap to a limited extent, demonstrate very similar average operating costs for properties in similar geographic locations.

At the same time, all researched databases showed that assisted housing costs more to operate than housing that is not part of a government program with restrictions on rent and income. Therefore, while GSD will use FHA-insured housing that is not assisted as part of the database on which GSD will build a cost model, the benchmark for public housing will be a cost benchmark for operating assisted housing.

The reconnaissance phase of the Cost Study led GSD to the following hypotheses about sources of operating cost variation.

- **Costs will vary substantially from locality to locality.** For example, costs will vary for different metropolitan areas or states, different types of locations (central cities, suburbs, non-metropolitan areas), and different regions of the country. These variations in costs will occur because of differences such as wage rates, housing market conditions (that could, for example, affect turnover rates), the difficulty of doing business in different types of communities, the quality of local public services and infrastructure and—perhaps—management functions that could differ in different areas.
- **Costs per unit will vary with the size of the multifamily property.** There are expected economies of scale associated with the number of units in a property. However, there may be diseconomies for certain types of properties beyond a certain size.
- **Costs per unit will vary with the mixture of number of bedrooms per unit, with higher costs associated with more bedrooms per unit.** For example, units with three or more bedrooms may house families with children who are old enough to place demands on common space.
- **Costs will vary with building type.** Each type of rental development (elevator high rise, garden apartments, townhouses, etc.) has some unique management and maintenance functions. The costs of these different functions are likely to be different.
- **Costs will vary with the types of households occupying the property.** As already suggested in connection with unit sizes, operating costs are expected to differ by the age and number of residents in each unit and by the amount of time residents spend at home, creating additional demands on management as well as more wear and tear on units and common space.
- **Costs may vary with the age of the property or with the date when the property was most recently rehabilitated.** Some older systems may require additional

routine maintenance or may create major repair needs (e.g., leaking roofs or leaking utility distribution systems).

- **Costs may vary for properties operating in different types of neighborhoods.** There may be additional costs associated with the management of multifamily rental housing in a “distressed” neighborhood—for example, because of additional needs to secure exterior and common space from intruders or to repair damage that may be caused by such intrusions.

The reconnaissance phase of the Cost Study also led GSD to understand that there will be cost variations from property to property that are idiosyncratic. These cost differences are the result of choices made by owners and managers on such issues as how to carry out management functions, the level of housing services to provide to residents, and how to treat non-recurring expenses for accounting purposes. It may not be possible to capture these cost differences in a model, but it also may not be necessary or even appropriate to do so. Instead of attempting to measure these sources of cost variation, the model that creates benchmark cost estimates reflects the *average* choices made by property owners and managers.

To further clarify, the choices made by owners and managers that create idiosyncratic cost differences may include:

- **differences in operating style**, such as how many staff to hire based on the number of units and whether to contract for management and maintenance functions or to perform them with in-house personnel;
- **differences in the level of housing services provided to residents**, which may in turn reflect the position of the property in the housing market or the motivations of the owner; and
- **differences in the investment and tax strategies of different owners**, which means that work that is on the borderline between routine maintenance and capital improvements might be included in operating costs and “expensed” for income tax purposes for some properties and not for others.

Finally, there are some sources of cost variation that should *not* be reflected at all, and not included in the cost estimates that are used to benchmark the costs of operating public housing. In developing the costing model, GSD will attempt to control for these sources of cost variation⁷ and to exclude the higher or lower costs associated with them from the benchmark costs. Some of these sources of inappropriate cost inflation/deflation are described below:

- **Costs that have been systematically constrained by a funding system associated with a government program.** If an entire group of properties has operating costs that make it difficult to operate those properties effectively, the lower operating costs of those properties should not be included in the benchmark.

⁷ For example, by using “dummy variables” in the regression analysis that represent either the presence or the absence of a particular property characteristic to measure its effect and exclude that effect on costs from the benchmark. Alternatively, GSD may take the properties that exhibit the characteristic out of the database on which the model is built. See below for more on the planned use of dummy variables in the development of the model.

- **Costs that have been systematically inflated by the rules of a government program** that restrict the extent to which the property's cash flow can be taken by the owner as profit. If an entire group of properties has higher operating costs than otherwise similar properties because of an incentive created by "limited dividend" rules to spend excess cash flow on the property, those additional costs should not be included in the benchmark.
- **Operating costs associated with "luxury" or very high rent housing** that provide additional services to residents (such as doormen or elaborate recreational amenities) in return for the rent.

B. Costs of Assisted or Subsidized Rental Housing

The reconnaissance phase of the Cost Study found that the operating costs of multifamily rental housing are higher for housing that is part of a government program than for unassisted market rental housing. Given that public housing is similar to assisted housing (although not identical) in its regulatory environment and rent and income limitations, the additional costs associated with operating multifamily rental properties as assisted housing should be included in the benchmark operating costs for public housing.

The higher costs of government assisted housing may be the result the following issues:

- **Government regulation**, which may impose costs by creating additional functions for housing management. An example is the requirement that managers collect income information from residents every year. Government regulation may also impose limitations on business operations that could make them less efficient, require additional record-keeping and reporting, or impose additional requirements for services to residents. There may also be additional costs incurred by the oversight activities of public agencies, including extra inspections, substitutions of owner judgements by oversight agencies, and various approvals.
- **The mission of serving low income tenants**, which may lead to management choices that are different from the choices made for unassisted rental housing. It is possible that the operating costs of assisted housing differ from the operating costs of unassisted housing in ways that are not explained either by the costs of regulation or by easily defined and measurable household characteristics. Characteristics such as the greater number of children per unit in assisted housing and the greater likelihood that non-elderly adults in assisted housing are not working and spend more time at home can be measured and, therefore, can be used directly in cost benchmarks. However, owners and managers may provide additional services to residents of assisted housing that would not be needed by residents of market rate housing in ways and for reasons that may not be entirely measurable through resident and property characteristics. The benchmark costs produced by the model will be based on the assumption that the average levels of such services included as operating costs for assisted housing are the appropriate level *to be funded as part of the operating costs of public housing*.

1.2 Development of Database

Given this conceptual framework, GSD sought to develop a database that:

- provides accurate information on the operating costs of multifamily rental properties;
- includes information on all of the characteristics of each property that are sources of possible cost variation that should be taken into account when benchmarking the operating costs of public housing; and
- consists of as large a number of properties as possible, so that (1) the model provides accurate estimates of the effect of measurable property characteristics on costs and (2) the sources of cost variation that cannot be specifically enumerated will balance out into reasonable average costs.

An additional consideration was that property characteristics used to create a model for benchmarking costs should be available for public housing developments, so that the benchmarks could be applied to public housing.

As discussed in detail in the April Report, GSD concluded that a database that uses the Annual Financial Statement data for multifamily properties insured by FHA or developed under the Section 202 Housing for the Elderly program best meets these aforementioned criteria. GSD combined Annual Financial Statement data with data on property characteristics from other sources to create an “FHA database” that will be used to develop a model of operating costs.

- The FHA database⁸ is large, with wide geographic coverage. The 1999 Annual Financial Statements data set includes data on more than 16,000 properties and more than 1.5 million units. All regions of the country and all types of locations—central city, balance of metropolitan area (suburbs), and non-metropolitan—are well represented.
- The properties in the FHA database have many characteristics that are also found in the public housing stock and that are likely to influence operating costs. In particular, the database includes properties that have multiple bedrooms in each unit and serve families with children, as well as properties with smaller units that serve a predominately elderly population. Residents of FHA properties include many persons with disabilities and many single parent families. The FHA database includes all building types found in multifamily rental housing and properties with a wide variety of sizes (total number of units in the property) and age (original construction date and date of the current mortgage). Many properties in the FHA database are found in census tracts with high rates of poverty and other indicators of social distress.
- The FHA database created by GSD includes data elements that can be used to measure the effect of property characteristics on operating costs. In addition to property size, building type, unit mix, building age, and variables relating to the

⁸ While Section 202 properties are not FHA insured (they were developed mostly with direct grants), the financial statements on these properties are submitted annually to HUD. For convenience, GSD is calling the database that it has created the “FHA database.”

property's location, GSD has information on the demographic characteristics of residents and indicators of the property's financial soundness and physical condition.

- The FHA database has a high level of data integrity. The operating costs of multifamily properties based on FHA Annual Financial Statements are subjected to independent audits and separate quality control checks.

A. Operating Costs from FHA Annual Financial Statements

Annual Financial Statements (AFS) are full financial statements (including Statement of Financial Position, Income Statement, Statement of Cash Flows, and various supplemental schedules required by FHA) prepared under Generally Accepted Accounting Principles, submitted by the property owner after the end of the property's fiscal year. Most owners are required by FHA to submit AFS that have been audited by an Independent Public Accountant before the data are submitted to HUD; the remaining owners are required to have a subsequent audit and reflect any adjustments in the next year's AFS.

Beginning with AFS for the fiscal year ending 12/31/98, owners have been required to submit AFS electronically to HUD's Real Estate Assessment Center (REAC). Previously, AFS were submitted in hard copy and entered into an electronic database by a HUD contractor. AFS data are subjected to extensive quality control checks by REAC, as they are used to determine whether a property is financially troubled or at risk of becoming financially troubled. All of the data from fiscal years 1996 through 2000, whether submitted in hard copy or electronically, has been captured in the database which GSD is using for modeling purposes.

The FHA-insured operating costs relevant for benchmarking the non-utility operating costs of public housing properties is defined as the sum of the following items on form HUD-92410, *Statement of Profit and Loss* (the items contained on form HUD-92410 have remained largely intact over the years).

- Total administrative expenses (Line 6200/6300)
- Total operating and maintenance (Line 6500)
- Total taxes and insurance (Line 6700) minus real estate taxes (Line 6710)

Because more recent data are more complete and have been subjected to more rigorous quality controls, GSD is likely to base the model for benchmarking public housing operating costs on Annual Financial Statements for fiscal years 1999 and 2000.

B. Information on Property Characteristics from Other HUD Databases and the US Census

The database containing FHA Annual Financial Statement data has been augmented to include additional data elements from the following databases:

- **HUD's Office of Housing Real Estate Management System (REMS).** This administrative database contains a wealth of information at the development level. For example, it includes variables on the number of units in each property, the distribution of units by bedroom size (i.e., one-bedroom, two-bedroom, etc.), building type (high rise, garden, townhouse, etc.), mortgage sponsor type (for-profit, non-

profit, limited dividend), occupancy type (family, elderly/disabled), HUD program (section of the act for FHA programs and what fraction of the units have Section 8 assistance), and the location of the property.

- **HUD's Office of Policy Development and Research (PD&R) A Picture of Subsidized Households 1998 database.** From this database, GSD has added to the FHA database variables describing the characteristics of the tenants occupying each assisted property, including income, source of income, and size and structure of the household. Data on tenant characteristics are aggregated to the property level from the *Tenant Rental Assistance Characteristics* (TRACS) system. TRACS is a household-level data system to which assisted housing property managers report each month information from the certification of income and characteristics of household members that is required at program admission and annually thereafter.
- **1990 Census of Population and Housing.** From the US Census, GSD has added variables that can serve as proxies for the level of distress of the neighborhood represented by the census tract in which the property is located.
- **Real Estate Assessment Center (REAC) Physical Inspection Scores.** HUD's Real Estate Assessment Center has inspected each property in the FHA database at least once. GSD has obtained from REAC both the most recent overall physical inspection score for each property, as well as a set of sub-scores associated with capital needs.
- **Office of Housing's Field Office Multifamily National System (FOMNS).** This database includes additional property characteristics, such as original age of construction, square footage, heating and cooling system, building materials, and management type.
- **Office of Housing's F-47 database.** This database contains the mortgage endorsement date information, which is useful for determining the age of a property's mortgage.

1.3 Approach to Modeling

The following discussion is intended for non-technical readers who want to understand the details of GSD's approach to, and how to interpret the results of, this important part of the research. However, in order to communicate GSD's plans accurately and precisely, the discussion uses (and defines) some technical statistical terms.

GSD will develop a cost model through the use of multiple regression analysis. This is a statistical technique that allows an outcome measure (called the *dependent variable*, in this case, operating costs per unit month) to be expressed as the result of the combination of characteristics that affect it (called the *explanatory variables* or *independent variables*, in this case, the factors that drive operating costs) multiplied by their respective regression coefficients (called *regression weights*).

The regression coefficients are the key product of the modeling exercise. Each explanatory variable has a regression coefficient that expresses in quantitative terms the extent to which the explanatory variable is found by the model to determine the dependent variable. Generally, an

explanatory variable that has a larger coefficient is more strongly correlated with the dependent variable than an explanatory variable that has a smaller coefficient.⁹ If the sign of the coefficient is negative, then the explanatory variable is negatively related to the outcome variable, meaning that an *increase* in the value of the explanatory variable is associated with a *decrease* in costs; if the sign of the coefficient is positive, then the explanatory variable is positively correlated with the dependent variable. The regression model holds other factors constant, while estimating each coefficient. Thus, the coefficient can be interpreted as the independent effect of each explanatory variable on the outcome, holding constant the values of all other variables in the model.

There are three types of explanatory variables used in the model: dummy (or indicator) variables, categorical variables, and continuous variables.

Dummy (or indicator) variables are “yes / no” variables: in the model, they take on a value of zero or one. An example is the variable “senior building”. The coefficient for a dummy variable is interpreted as the effect of having a “yes” value for the variable, relative to having a “no” value. Thus, if the model generates a negative coefficient for “senior building”, it would mean that operating costs are lower in senior buildings than in non-senior buildings, all else held constant.

Dummy variables are one type of categorical variable. Categorical variables are variables that refer to groups or categories of observations (in this case, properties). In the case of dummy variables, the category happens to have only two values: yes or no.

When GSD uses categorical variables, each explanatory variable includes a value that does not receive a coefficient (called the omitted value, or reference category.) The effect of the omitted value is included in the statistical term called the *intercept* that becomes part of the estimate of the value of the outcome measure or dependent variable.¹⁰ What the coefficients represent, then, is the effect of being in one of the categories, relative to being in the reference category. The omitted value is often the value most typical of the population, since this makes it easier to explain why the coefficients behave as they do.

For example, a variable on building type might have five values: high rise/elevator, garden/walk-up, row/townhouse, detached or semi-detached, and other. GSD might make garden/walk-up the omitted value, since that is the most typical building type. The coefficients then express the extent to which the statistical analysis determines that each other building type has costs that differ from the costs of garden/walk-up apartments. Hypothetically, the model might show that high rise/elevator buildings cost \$10 more to operate per unit-month (after controlling for other property characteristics), while detached and semi-detached units cost \$2 less per unit-month, compared in both cases with garden/walk-ups.¹¹

⁹ This statement assumes the two explanatory variables being compared have the same *units of analysis*. For example, both may be measured in dollars. The statement does not hold true if the two explanatory variables have different units of analysis. Also, this statement assumes that both coefficients are statistically significant. In addition to coefficients, the model also generates a measure of the *statistical significance* of each coefficient, called the standard error of the coefficient. If a coefficient is not statistically significant, it means the relationship between the explanatory variable and the outcome variable cannot be precisely estimated, and GSD cannot with confidence interpret the coefficient as being different from zero, even though the coefficient might be very large.

¹⁰ For simplicity, the intercept can be thought of as the base value of the dependent variable, to which the quantities indicated by the coefficients are added or subtracted. But it is an arbitrary base value, since its size depends on the choices made in structuring the model (such as which values of categorical variables to omit).

¹¹ This statement assumes the dependent and independent variables are both entered linearly. As noted below, GSD may use a model in which the dependent variable is in log form, then GSD would be able to interpret the coefficients as meaning that a high-rise/elevator costs five *percent* more to operate than a walk-up, while a detached building cost

Continuous variables are variables that take on a numerical value, rather than variables that refer to categories of observations. For example, property size (number of apartments) could be entered as a continuous variable. The coefficient for a continuous variable represents the effect on the dependent variable resulting from a one-unit increase in the explanatory variable. For example, a coefficient on property size equal to $-.02$ means that for every one-unit increase in property size, operating costs decrease by $.02$ dollars, or equivalently, for every 100 unit increase in property size, operating costs decrease by 2 dollars per unit-month.¹²

GSD will likely use the most common form of regression, Ordinary Least Squares (OLS). The mathematical formula created by OLS predicts the dependent variable in a way that minimizes the extent to which *any* actual value of the dependent variable (i.e., the operating cost of any property in the database) differs from the predicted value. More specifically, OLS is a rigorous mathematical optimization algorithm that produces the regression coefficients for a given model and a set of observations. This estimation process is performed by high-speed computers and the use of statistical software packages such as SAS and Stata.

GSD is considering the use of alternative regression estimators, including Least Average Deviation (LAD)¹³ and iterative re-weighted least squares or robust regression. In addition to comparing results using alternative estimators, GSD will use *influence statistics* to identify observations (properties) that have a very large effect on an OLS model and seek more information about them. In particular, GSD will look for factors external to the model or the database that may be driving the costs of these properties. It may be preferable to exclude certain idiosyncratic properties from the model and to use OLS, rather than turning to a less commonly used type of regression.

The value GSD is seeking to predict is operating cost per unit month. Ultimately this must be expressed as an absolute value (dollars). However, in the development of the model, GSD is strongly considering expressing this dependent variable as a logarithm. One advantage of transforming the dependent variable in this way is that it will enable GSD to estimate the effect of the explanatory variables on the dependent variable as the *percentage* change created in the dependent variable by a unit change in the explanatory variable. The regression coefficients produced by the model will be percentage changes. To use the example of building type: it may be more accurate to conclude that an elevator building costs 5 percent more to operate than to conclude that it costs \$10 more to operate per unit month regardless of the base cost to which that \$10 is added.

one *percent* less to operate than a walk-up, all else equal. Note that these examples are hypothetical and not to be taken as actual results of modeling.

¹² Once again, this statement assumes GSD is using a linear model. In a log-linear model, a coefficient equal to **A** means that a one-unit increase in the explanatory variable is associated with an increase of size **A** in the log of the explanatory variable. Fortunately, log-linear models are easy to interpret. This is equivalent to saying that a one-unit increase in the explanatory variable is associated with a *percentage* increase of size **A** in the outcome variable. Please note that this is a hypothetical example. GSD may decide to use size as a categorical variable.

¹³ The distinction between OLS and LAD is that OLS, by squaring and minimizing deviations from the predicted value, accentuates the effect of extreme values or outliers. This may make the model predict less well on average. LAD, by not squaring deviations, may create a model that predicts more accurately for a larger number of observations, but with greater inaccuracy at the extremes.

A. Explanatory Variables

The model building starts with the most simple models that include those property characteristics most likely to affect costs and expressed in the most straightforward terms. Additional variables are then added or the form of existing variables is changed to determine whether those additions or changes increase the explanatory power of the model. In each case, either a new variable or a new form of the variable must be based on a hypothesis about its relationship to operating costs. The GSD project team must be satisfied that the data underlying the variable are reasonably accurate and that the variable's meaning is unambiguous. Other desirable characteristics of any additional variables are:

- the relationship between the variable and operating costs must be easy to explain; and
- the variable must already exist for public housing in one of the HUD databases, or the cost of collecting it for both HUD and the PHAs must be modest.

The new or changed variable will be included in the model only if it is found to have a significant statistical relationship to operating costs and only if it improves the overall ability of the model to predict operating costs.

As an example of changing the form of a variable, take the age of the mortgage or building. GSD might start with age as a continuous variable. Assuming that older properties cost more to operate (which the model may or may not find to be the case), age as a continuous variable would produce a coefficient showing how much each year of age adds to operating costs. GSD might, however, find the coefficient for this continuous variable does not meet a statistical test of significance. GSD might then try dividing age into categories (0-10 years, 10-15, 15-20, 20-25, 25-30, etc.), based on the premise that properties between 20 to 25 years old are all similar in the effect that aging building systems have on operating costs.¹⁴

As GSD adds variables or changes their form (from continuous to categorical, shifting the boundaries of the categories, etc.), GSD will watch for their effect on other variables. It may be that the new variable in effect measures the same thing as a variable already in the model, and this causes the coefficients of the original variable to become statistically insignificant or difficult to interpret in a reasonable way. For example, a variable measuring the number of children per unit in a property might measure the same thing as the average number of bedrooms per unit. The addition of the "children" variable could make it appear that larger units are less expensive to operate than smaller units (the confounding effect of variables that measure the same thing is called multicollinearity.) On the other hand, the number of bedrooms per unit and the number of children per unit might well be found to have separate effects on operating costs, and in this case GSD would want to include both in the model.

Exhibits 1.1 and 1.2 provide a snapshot of the variables being tested as GSD develops a model to benchmark operating costs. The tables indicate the source of data for each variable and the theoretical assumption about how the variable affects operating costs. The tables also include comments explaining special issues or plans for the use of the variable. Exhibit 1.1 includes

¹⁴ GSD will also test whether any of the explanatory variables should be expressed in logarithmic form, which would produce a change in the dependent variable associated with a percentage change in the explanatory variable. It is less likely that GSD will recommend such a model (a log-log model, rather than a log-linear model), because GSD does not believe it will find much statistical advantage in expressing both dependent and independent variables in percentage terms.

Exhibit 1.1: Variables that May Affect Operating Costs of Any Multifamily Rental Housing

Variable	Source of Data	Expected Effect on Cost	Comment
Building type (high rise, garden, townhouse, semi-detached, detached)	REMS	High rise/elevator more expensive because of elevator maintenance and costs associated with common hallways and access.	Model may not work well for scattered-site, single-family units.
Property size (number of units)	REMS	In general, expect economies of scale, so per unit cost should decrease with property size.	Test for types of properties with diseconomies: e.g., interact with unit mix or number of children. Test if unassisted large and high cost properties are luxury housing (high rent).
MSA (for non-MSA properties, state)	REMS	MSAs with high wage rates and other local cost drivers (population density, size of MSA, high rental turnover) will have higher costs.	Test wage rates alone or combined with other alternatives to MSA variables.
Property is housing for elderly	REMS	Housing for elderly is less expensive to operate because elders create less wear and tear on units and common space; however, elders may place more demands on management staff.	Test if unassisted high cost elderly properties are luxury housing (high rent).
Average bedrooms per unit	REMS	More bedrooms in a unit are associated with higher costs because of added size of units, common areas, and building systems; and because of use by larger number of people.	
Persons per bedroom	A Picture of Subsidized Households	Additional people associated with higher costs.	Public and assisted housing may have more intensive occupancy because of rules matching household types to unit sizes.
Percent units with 3+ bedrooms	REMS	Units with 3 or more bedrooms house older children, creating wear and tear on units and common areas.	Test alternatives: children per unit, people per unit.
Combined occupancy by elderly and persons with disabilities	A Picture of Subsidized Households	Mixed population creates conflicts managers must spend time resolving.	Test variable for assisted housing not in the Section 202 program.
Mortgage age	F-47	Older mortgages associated with higher operating costs as building systems age.	Interact with assistance, because unassisted properties may have refinanced without rehabilitation. Not available for public housing, although could collect data from PHAs on date and cost of modernization by property.
Property age	FOMNS	Older properties are associated with higher operating costs as building systems age.	Date of substantial rehabilitation (represented by mortgage age) may be more relevant.
Capital backlog	REAC physical inspection results	Properties with backlog of capital needs have higher operating costs.	Test variable based on inspection results that suggest capital backlog
Location type (central city, suburb, non-metro)	REMS	Central city properties cost more to operate; non-metro cost less, both because of wage rates and because some management functions differ.	Test for separate effect of location type, even when MSA and state dummy variables are used.
Turnover rate at property (percent move-ins in past year)	A Picture of Subsidized Households	Properties with high turnover rates have higher operating costs because of unit preparation and/or marketing.	
Younger adults and older children at home	A Picture of Subsidized Households, Census	Properties with high percentages of such households cost more because of additional management attention, wear and tear on units and common space.	Test several forms: single parents in property, single parents in census tract, residents on welfare, families in census tract on welfare, etc.
Social distress of neighborhood (poverty rate, rate of single parenthood in census tract)	Census	Properties in distressed neighborhoods cost more because of security needs, vandalism.	

variables believed to be associated with variations in operating cost for any type of property, whether it is privately or publicly owned, regardless of whether it has the restrictions applied by a government housing assistance program, and regardless of whether it is luxury housing.

B. Adjusting for Costs Associated with Particular Types of Housing

Exhibit 1.2 lists variables that may be used to make sure that the benchmark costs include all of those cost variations appropriate to public housing and that they do not include inappropriate cost variations. There are several ways in which the model could be designed—or applied—to adjust for costs associated with particular types of housing that have cost variations that should not be included in the benchmark.

- GSD could limit the database on which the model is based to a subset of FHA insured and Section 202 multifamily rental properties that do not have the particular characteristic that affects costs in inappropriate ways. GSD believes that it may be preferable to include the additional properties that have the inappropriate characteristics but remove the effect of the characteristic from the model. Excluding these properties altogether might unduly limit the number and types of properties on which the model is based, losing valuable information about property characteristics that the omitted subsets of the database have in common with public housing (e.g., location, property size, occupancy by families with children). Instead, GSD will define as narrowly as possible those properties that will be omitted from the database, and will omit properties only in cases for which other options for adjusting for inappropriate costs do not work well.
- GSD could use dummy or categorical variables to isolate the effect on operating costs of a particular property characteristic. GSD would then omit that cost effect from the application to public housing. For example, suppose GSD determines that unassisted properties with very high rents have additional costs that should not be included in the benchmark. GSD could use a dummy variable that indicates whether a property has this characteristic or not. In applying the model to public housing, GSD will assume public housing is not high rent/luxury housing and not apply the coefficient associated with luxury housing.
- GSD could use combinations or interactions of variables in a way that isolates the effect of a property characteristic that occurs only when that particular characteristic is combined with another particular characteristic. For example, GSD may find that the model predicts costs more accurately if certain variables are associated with the fact that a property is government assisted housing.

Exhibit 1.2: Variables that May be Needed to Include and Exclude Particular Variations in Operating Cost

Variable	Source of Data	Effect on Costs	Comment
Housing assistance (whether the property is assisted by a government program or unassisted)	REMS	Assisted housing costs more to operate than unassisted housing because of regulatory requirements and constraints.	Public housing will be treated as assisted housing in the application of the model. Test alternative definitions of assistance (percent Section 8 only; percent Section 8, Section 236, or BMIR combined) for effect on operating costs and for interaction with other variables. Test both continuous and categorical variables.
Mortgage sponsor type (for-profit, non-profit, limited dividend)	REMS	Some properties owned by non-profits and limited dividend sponsors may have inflated operating costs because of inability to take out cash flow as profit.	Examine cash flow and replacement reserves. Interact with older/newer assisted, since this phenomenon may affect only newer assisted properties (which for many years received automatic annual adjustments to rents).
Type of assistance program (older or newer assisted)	REMS	Older assisted properties may have lower operating costs because operating costs were constrained by budget-based rents negotiated between owners and HUD.	Examine cash flow and other indicators of inadequate funding. Test interaction with ever troubled and REAC score variables.
Ever troubled (property is or was declared troubled by HUD)	REMS	Troubled properties may have lower operating costs because constrained by rents; or owner decision to spend little on property may have led to troubled status. Or they may have higher costs because of deferred maintenance or ineffective management.	Test both effect on dependent variable and other effects on model of omitting troubled properties.
REAC physical inspection scores	REAC	Low scoring properties may have lower operating costs because operating costs were constrained by rents, or because owner decision to spend little on property may have led to physical distress. Alternatively, properties with low-scores may be in poor condition and hence have higher operating costs.	Test both effect on dependent variable and other effects on model of omitting low scoring properties.
Cash flow	AFS	Negative or low cash flow properties may have lower operating costs because constrained by rents.	Interact with housing assistance type, because this phenomenon may affect only older assisted properties, which have had budget-based rents. Test both effect on dependent variable and other effects on model of omitting properties with low or negative cash flow.
Properties with very high rents	AFS, REMS, FMRs	Effect of property characteristics on operating costs of luxury housing may differ from effects of same characteristic for modest, standard housing. Could confound effect of property size, unit mix, etc.	Interact with housing assistance, since this phenomenon only affects unassisted housing. Test effects on model of omitting high rent properties.

1.4 Testing the Accuracy of the Model

A. Tests of How Well the Model Fits the Database on Which it is Based

GSD will test the accuracy of each version of the model under serious consideration, using standard statistical measures of goodness of fit. These include the following:

- **R-squared.** This is a measure of the extent to which the model's independent variables and their coefficients explain all of the variation in the dependent variable observed across the database—i.e., all the different values of operating costs per unit month for all of the properties in the database. The R-squared statistic can have values between 0 (no variation is explained) and 1 (all of the variation is explained). Following standard practice, GSD will adjust the R-squared for the number of variables in the regression. For reasons that can be demonstrated mathematically, adding variables increases the R-squared statistic whether or not the additional variables are significant. The adjusted R-squared statistic corrects for this.

For reasons explained earlier—variations in operating costs that reflect management style, inclusion of non-recurring costs in operating costs, and market positioning—GSD does not expect the model to explain a very high percentage of the variation in operating cost. The objective of the modeling exercise is not to explain all the variation in the operating cost of multifamily rental housing, but to produce reasonable benchmarks for the cost of operating multifamily rental housing.

Nonetheless, a model with a higher R-squared should be selected over a model with a lower R-squared, unless there are other considerations that make the model with the lower R-squared superior. For example, the R-squared statistic can shift substantially with the exclusion or inclusion of a few influential observations (i.e., properties) in the database (that is, observations with extreme values in the dependent or independent variables). Because of this “outlier effect,” R-squared statistics may not capture the overall goodness of fit of a model. For the same reason, as noted elsewhere in this *Draft Research Design*, GSD will consider whether to eliminate properties with extreme values from the database.

- **Mean Absolute Percentage Error (MAPE).** This is a measure of how much the individual values of the dependent variable (i.e., operating costs of individual properties in the database) differ, on average, from the values predicted by the model. For example, if MAPE is .12, the predicted operating cost for each property in the database differs from its actual operating cost by 12 percent on average. This statistic may be more relevant than the R-squared statistic for the purpose of this modeling exercise, which is to predict values for the dependent variable rather than to explain variation.

Because there is a great deal of idiosyncratic variation in operating costs, GSD expects that the MAPE for the model will be fairly large.

- **Root Mean Squared Percentage Error (RMSPE).** The RMSPE measures the deviation of predicted values from actual values in a way that accentuates the importance of large individual errors more than MAPE. This statistic may be a useful diagnostic tool for identifying changes to the model needed to predict better

the operating costs of certain types of properties. GSD will also look at individual “worst case” errors to identify types of properties for which the model fits less well.

- **Distribution of Percent Error (normalized residuals).** This statistic displays, for all of the observations in the database, the difference between the predicted and actual values of the dependent variable. This is a very useful statistic for explaining the model and for making decisions about how to apply it. For example, it can be summarized as: “75 percent of the model’s predicted operating costs fall within $-X$ percent and $+X$ percent of the actual value.” The percentages of predicted values falling above and below the actual value can be displayed separately.
- **Percent Error for Subsets of Properties (prediction of cell means).** GSD will create subsets of properties from the database that represent logical groupings of properties—for example, high rise assisted elderly properties in suburbs by region of the country or non-elderly assisted garden properties in central cities by region of the country—and use statistical measures of goodness of fit to examine how well the model predicts operating costs for that group of properties. The analysis of how well the model predicts operating costs for subsets of properties may be very useful for making decisions on how to apply the model.

Such cell means could also be used directly for benchmarking costs; however, a regression-based model is superior, because it enables the cost benchmarks to control for a larger set of property characteristics and it permits the use of information from observations that do not fit well into a predetermined cell. Nonetheless, it will be useful to test how accurately the model predicts costs for groups of properties within the FHA database that are particularly similar to public housing in location, building type, and so forth.

B. External Tests of the Model

- **Testing the model on a “hold-out” sample of FHA properties.** Because GSD has a very large database of FHA insured and Section 202 multifamily rental properties on which to base the model, GSD will be able to subject the model to a very powerful test of accuracy. GSD will select randomly 25 percent of the observations in the database and hold that sample aside. GSD will base the model on the remaining 75 percent of the observations and then test how well it predicts the reserved sample. (GSD will select the sample randomly, but with some stratification to make sure that certain property characteristics, such as age and size, are well represented in both samples.) GSD will then look at various statistical tests to compare how the model performs for the *hold out sample* with the way in which it performs for the *modeling sample*.

This is a particularly useful test for this modeling exercise because it mimics the actual application of the model to a set of properties other than the set of properties on which the model was based.

- **Testing the model on other databases of multifamily rental properties.** GSD will apply the model to other databases assembled as part of the reconnaissance phase of the Cost Study: data provided by the National Apartment Association (NAA); a database of properties owned by large private housing investors; and a database

provided by the United States Department of Agriculture’s Rural Housing Service on multifamily rental properties assisted by the Section 515 program. It may be necessary to apply a reduced form of the model, since some of the variables used in the model may not be available for those databases. For example, none of the other databases has information on the demographic characteristics of residents and none has identifiers of property location as specific as the FHA database. It will also be necessary to adjust the model in other ways. For example, the NAA database contains very few assisted properties, so GSD will test the model against that database using the coefficient for unassisted housing.

- **Testing the model on individual private multifamily rental properties.** As part of the model-building work, GSD will take advantage of the fact that the proprietary databases from large housing investors include a number of properties that are also in the FHA database and that GSD may be able to obtain additional information about the “overlap” properties. From among the properties that overlap, GSD will identify two groups: those for which the model is predicting with a large error and those that have a large effect on the model’s coefficients. (GSD will use influence statistics to make the latter determination.) Members of the GSD team will then seek information from the owners and managers of these “outlier” and “influential” properties on the reasons for operating costs that (according to the model) are extremely high or low. This will help GSD decide on changes to the model—for example, on changing the specification of variables, on interacting variables, and on whether a subset of properties should be excluded from the model or have certain characteristics controlled for by dummy variables.
- **Testing the model on individual public housing properties.** While the model development is proceeding, GSD will select not less than 50 public housing properties, or 8 to 10 in each of 5 or 6 metropolitan areas (and nearby rural areas), and will ask local property management experts who are experienced in managing assisted housing in those markets to estimate the operating costs of those properties as if they were privately owned assisted housing—that is, as if they had all the regulatory requirements and constraints of project-based Section 8 properties with budget-based rents.

GSD will select properties from a list of all public housing developments in each metropolitan area (and nearby PHAs with rural service areas), with the following selection rules:

- some properties, but not all properties, should be owned by the largest PHA in the metropolitan area;
- the properties should represent a variety of building types and occupancy types typical of both that metropolitan area and of public housing nationally;
- properties that have received HOPE VI grants, or for which the PHA intends to apply for a HOPE VI grant, or that are subject to the viability analysis now required for certain public housing developments should not be included;¹⁵ and
- properties determined (after consultation with the PHA) to have very atypical operating costs for any other reason should not be included.

¹⁵ Section 202 of the 1996 HUD Appropriations Act (subsequently amended by QHWRA) requires the viability assessments and conversion to vouchers of large, substantially vacant public housing properties that have very high rehabilitation costs.

Utilizing a standardized protocol, these property-based budgets will be prepared assuming that the properties are to be operated as well-run assisted housing (it will be assumed that residents will be similar to the current residents or to those who would be eligible to live and choose to live in a Section 8 project-based development in this location and of this quality. The real estate professional would be free to assume the residents could be screened as permitted by program rules and evicted for cause as permitted by program rules). The model-predicted costs for these properties will not be revealed to those preparing the budgets until after the field testing has been completed. These budgets will be supported with accompanying line-item narratives and recommended staffing plans. In the areas of security and resident programs, the budgets will be prepared assuming what is normal and customary for well-run assisted housing in those markets. All of these operating budgets will be created with the Chart of Accounts used for FHA that has been included in the GSD model of FHA operating costs. More specifically, these are the line items on form HUD-92410:

- Total administrative expenses (Line 6200/6300)
- Total operating and maintenance (Line 6500)
- Total taxes and insurance (Line 6700) minus real estate taxes (Line 6710)

Additionally, because the need for deferred capital improvements may affect operating costs, where warranted, these budgets will be developed under two scenarios: (1) assuming current conditions and (2) assuming capital needs were to be addressed.

In addition to testing the predictive abilities of the costing model, another purpose of the field testing is to determine whether there are fundamental differences in the physical design of public housing that affect operating costs, but are not captured in the costing model.

When the model development process has produced a recommended model, GSD will use it to estimate the benchmark costs for the same 50 properties. GSD will then convene a focus group including both the real estate professionals and the key staff who worked on the model to discuss the benchmark estimates produced by the model and the ranges estimated by the real estate professionals. GSD will share these results and observations with industry groups (either through the recommended research working group or through the regular monthly public progress meetings).

This test of the model against specific public housing properties will produce information for further refinement of the model and for decisions about its application. Any adjustments to be made to the model as a result of this field testing process will be fully documented.

1.5 Applying the Model to Public Housing

When a recommended model (or some alternative models) has been selected, GSD will use the model's coefficients to estimate benchmark operating costs for individual public housing developments (further adjustments will be made to those benchmarks outside the model, as

discussed below). In order to apply the model to public housing at a development level, GSD has obtained from HUD the database on public housing developments that is used to allocate capital funds to PHAs. With assistance from HUD's Office of Policy Development and Research, GSD has added to that database some additional information on the locations (street addresses and geocodes) of public housing developments. GSD will also match the database to information in *A Picture of Subsidized Households* and the US Census. If GSD finds that an indicator of physical condition based on REAC inspection results enhances the predictive power of the model, GSD will obtain parallel information from REAC for public housing developments and include these data in the public housing development database.

For most of the variables in the model, GSD expects that the public housing development database will have a precisely comparable variable—for example, property size, building type, unit mix, MSA, and demographic and census variables—and GSD will apply the coefficients from the model directly to those variables. In the application of the model, it will be assumed that *public housing is assisted housing*: that is, the coefficients for assisted housing (and for any variables that combine another variable with the fact that a property is assisted housing) will be used.

In a few cases, there may be variables that GSD has determined should be in the model but that are not available currently for public housing developments or for all public housing developments. The best example is the date of the most recent major rehabilitation of the property, comparable to mortgage age for FHA properties. If the use of this variable substantially enhances the predictive power of the model, GSD will recommend that HUD collect data from PHAs on the timing and cost of expenditures of capital or modernization funds at each property. In the meantime, GSD will apply the model to public housing with that variable neutralized and with information about the maximum percentage change in benchmarked per unit operating costs that could occur once that variable is applied to public housing.

The following public housing developments will be excluded from the application of the model:

- developments that have received a HOPE VI grant; and
- developments that have failed the viability assessment required of certain public housing developments or that are in the process of such an assessment.¹⁶

GSD may also exclude scattered site, single family developments, but that decision will not be made until the end of the modeling exercise.

For each PHA, GSD will develop a composite operating cost benchmark based on the operating cost (per unit month) of each development weighted by the number of units in each development. This composite benchmark will be prepared both excluding the property types listed above and including them. The reason for including them is to compare better the model-predicted costs to current Allowable Expense Levels (AELs) under the PFS/Operating Fund.

¹⁶ Section 202 of the 1996 HUD Appropriations Act (subsequently amended by QHWRA) requires the viability assessments and conversion to vouchers of large, substantially vacant public housing properties that have very high rehabilitation costs.

1.6 Distressed Properties

The cost model will attempt to account for the effect of age and deferred capital needs on operating costs. It may also exclude the lower costs associated with operating distressed FHA properties, if the modeling exercise determines that such a relationship exists. However, public housing may include some properties that are so severely distressed that the model cannot predict their costs.¹⁷ Ultimately, severely distressed public housing properties should be targeted for work-out action or should be demolished or removed from the inventory. Once a property's distressed condition is treated, there is every expectation that the costing model should apply. The issue, then, is the cost to operate a distressed property before it is treated, which should be a temporary condition.

There are two basic approaches to determining the allowable operating costs for distressed properties. The first is to authorize current funding levels until the property's condition is treated. This presumes that the current funding to the property is higher than the model-predicted costs. The second is to negotiate these budgets on a project-by-project basis based on informed knowledge of property conditions. In the event of the latter, and to assist in better understanding what the operating costs might be for distressed properties, GSD plans to undertake an analysis of the property-specific budgets for up to five distressed properties. As indicated, these data will not be incorporated into the costing model but will be used to inform policy makers of the options for dealing with distressed properties.

While GSD acknowledges that distressed properties will need to be addressed separately from the costing model, GSD has no ready way to identify which public housing properties are distressed. From previous HUD research, the number of distressed units, variously defined, may be on the order of 100,000. To qualify as distressed, and therefore be subject to the aforementioned negotiated budget process, HUD could either designate such properties through its local field offices or it could leave such designation to the PHAs themselves. In the case of the latter, and as a condition of declaring a property distressed, and therefore being subject to the negotiated budget process, a PHA might be required to commit to a set of remedial actions to correct the underlying conditions.

¹⁷ The FHA database does not include properties that are so severely distressed financially or physically that HUD has assumed ownership of the property itself, not just the mortgages, i.e., HUD-owned properties.

CHAPTER TWO

Case Studies

Chapter Two

Case Studies

The costing model that was described in Chapter One will estimate the cost to operate each public housing property *as if it were assisted housing*, taking into consideration such property characteristics as building design, location, number of three bedroom units, etc. GSD will conduct case studies of selected well-run PHAs to determine any adjustment in the model-predicted cost as a result of differences in public housing’s regulatory or operating environment.

2.1 Approach

GSD’s earlier research suggests that the regulations governing public housing are similar (but not identical) to those governing FHA assisted housing, and that the cost of those differences can be reasonably estimated based on qualified professional judgement.¹⁸ Consequently, one of the primary purposes of the case studies is to estimate these costs and determine whether they differ for agencies of different sizes. Exhibit 2.1 lists the major areas of differences in regulations between public and assisted housing (a more detailed review of the comparative regulatory environments is found in Appendix D).

Exhibit 2.1: Regulatory Differences Between Public and Assisted Housing

Additional Regulatory Requirements Imposed on Public Housing	Additional Regulatory Requirements Imposed on Assisted Housing
<ul style="list-style-type: none"> • Annual Plan • Community Service • Cooperation with Welfare Agencies • Deconcentration • Designated Housing • Grievances • Income Disregards, Imputed Welfare Income, and Flat Rents • Pets in Family Housing • Procurement • PHAS • Section 3 • Tenant Participation and Resident Consultation • Wage Rates • Waiting Lists 	<ul style="list-style-type: none"> • Financial Reporting • Subsidy Transference • Petition for Project Rent Increases • Audit Requirements

The case studies will be conducted by teams of housing professionals that will include at least one member who is an expert in operating assisted housing and one member who is an expert in

¹⁸ The term “regulations” is used here to refer to the body of rules and regulations governing public and assisted housing. This would include not just items formally published in the Code of Federal Regulations but also HUD handbooks, notices, and other instructions.

operating public housing. Based on their observations, and in accordance with professional judgement, the teams will attempt to answer the question, “What impact would these additional regulatory requirements have on operating costs if imposed on an efficient operator of assisted housing and assuming a competitive operating environment?”

As indicated, the point of reference is the cost to operate assisted housing. The case study teams will be attempting to determine the net burden of public housing’s unique regulatory requirements, i.e., the added cost of regulations imposed or enforced only on PHAs less the cost of regulations imposed or enforced only on operators of assisted housing.

Consideration will be given to both the direct and indirect costs of public housing’s unique regulatory requirements. For example, are there unique regulatory requirements that lead PHAs to incur more extensive (and hence more costly) automation systems than typically found in assisted housing? Similarly, do these regulations give shape to organizational structures or tendencies that are different than assisted housing and that have cost implications?

GSD is also interested in understanding the cost impact based on agency size. For example, federal procurement rules require formal competitive bidding for purchases of more than \$100,000. A smaller agency would generally not have a single operating expenditure in any year that exceeds that amount. On the other hand, there may be certain regulations that require large fixed costs and, therefore, are disproportionately burdensome on smaller agencies, who have less ability to spread those fixed costs over a large number of units.

The other major area of research for the case studies is identifying differences in costs that are driven not by federal regulations but by a PHA’s local operating environment. GSD’s previous research also suggests that these local factors may drive costs much more significantly than differences in regulations. Exclusive of differences in property characteristics or regulations, a PHA may have costs that differ from assisted housing for reasons having to do with the following:¹⁹

- **Mission.** The cost to operate public housing could be higher/lower than the cost to operate assisted housing depending on the mission of the PHA. A PHA may decide to provide a quality of housing that is substantially higher/lower than assisted housing or it may decide to serve a tenant population that is substantially more service-needy (for example, in the case of serving homeless families). Additionally, a housing authority may decide to provide substantially more property or resident services to the residents of public housing than might be traditionally provided in assisted housing. Finally, certain PHAs may be expected to play roles in their communities that extend beyond the actual operation of public housing and may include housing planning or advocacy.
- **Organization.** Public housing costs may differ from those of assisted housing because of the way in which a PHA is organized. For example, as GSD has previously observed, PHAs tend to operate under more centralized arrangements than private operators of assisted housing. These organizational tendencies may have fairly significant cost implications.

¹⁹ A PHA may also incur costs for activities related to the development of new housing. A discussion of these costs is found under Asset Management, below.

- **Local Law.** To the extent that local law (state or municipal) imposes requirements on *all* operators of assisted housing, those costs should be reflected in the costing model. For the purposes of the case studies, the issue is whether local laws impose unique constraints on the operation of public housing. For example, local law may require a PHA (but not a private operator of assisted housing) to provide a minimum level of security coverage in senior buildings or to provide additional due process in the case of evictions.
- **Public Entity Costs.** Costs may be higher than assisted housing as result of a PHA's status as a public body. This can include greater demands for public access and participation in decision making. As public bodies, PHAs may also have less flexible work rules or pay higher wages and benefits, i.e., non-market-standard work rules not otherwise required by local law. Finally, there may be greater public expectations and scrutiny of activities, leading PHAs to implement regulations more elaborately than operators of assisted housing or to establish processes that place more emphasis on equity and fairness over efficiency.

The above items raise a number of challenging policy issues. Beyond the benchmark cost to operate assisted housing, and beyond any differences in regulations, which of these items should be funded with federal operating subsidies? Should federal operating subsidies be used to pay for locally-imposed mandates? For supportive services and programs that exceed the level provided in assisted housing? For differences in organization (unless caused by regulation)? Etc.

Before GSD completes the protocols for the case studies, it will conduct pilot case studies at not less than six agencies. These pilots will be conducted by two senior, experienced research teams, each of which would visit at least one small, medium, and large agency. The pilot case studies will allow GSD to understand better the nature of the cost drivers, the information to collect, the research questions to ask, etc. Instructions to the research teams for these pilot sites are included in Appendix C. These case study pilot sites will also help GSD to determine whether any such adjustments should be expressed in absolute terms (dollars of additional funds) or in percentage terms (X percent above the benchmark costs).

Importantly, following completion of these case study pilot sites, GSD will share its observations with industry groups and accompanying recommendations for protocol development.

In addition to assisting in finalizing the case study protocols, the other advantage of conducting these pilot case studies is that they will allow policy makers an opportunity to provide direction as to which of the local cost drivers should be funded with federal operating subsidies and, hence, should be included in the final case study analysis. Following the case studies, GSD intends to hold conversations with stakeholders (HUD, the Congress, industry groups) regarding which of these functions should be funded with operating subsidies and the implications for the case study process.

2.2 Number and Selection of Case Study Agencies

Including the pilot sites, GSD intends to conduct case studies of between 20-30 PHAs, as shown in Exhibit 2.2.

Exhibit 2.2: Number of Proposed Case Studies, Based on Size of PHA

	Small PHAs	Medium PHAs	Large PHAs	Very Large PHAs	Totals
Minimum	8	5	4	3	20
Maximum	10	8	7	5 ²⁰	30

The selection of case study agencies will be determined based on the following factors:

- **Range of agency size.** Given that some of the potential cost drivers may have differential impacts based on agency size, the case study agencies will represent a range of agency size (small, medium, large, and very large).
- **Geographic distribution.** Case study agencies should be geographically distributed, representing different regions of the country but also representing city/suburban/rural PHAs.
- **Well-run status.** Agencies selected must score at least an 80 on the Public Housing Assessment System (PHAS) but also be widely recognized within the industry as well-run. In the case of very large agencies, a lower threshold may be required in that currently only five of 14 very large agencies have PHAS scores of more than 80.
- **Willingness to share data and participate in the Cost Study.** GSD will not undertake a case study at an agency that does not wish to participate. Data collection would be extremely difficult at such an agency.
- **Sound and consistent financial management systems.** The presence of such systems is essential to analyzing costs.
- **Experience with assisted housing or private management or public housing.** Some, but not all, of the case study agencies will include agencies that have experience in owning or managing assisted housing in addition to their public housing. The comparative operating experience of these agencies should prove helpful in identifying and understanding differential cost impacts. For example, it will allow GSD to see how the different procurement rules play out in the two programs. For the same reason, GSD plans to include some agencies that have experience with the private management of public housing. This latter sub-set of agencies may help GSD to distinguish what might be regulatory cost effects from what might be organizational cost effects.

2.3 Supplemental Research

GSD intends to supplement the case studies with additional research on asset management, mixed-finance public housing, and private management of public housing, as described below:

²⁰ In accordance with the Cooperative Agreement with HUD, at least one of the very large agencies to be included in the case studies will be the Puerto Rico Housing Authority; however, their scope of work is likely to be expanded beyond the areas studied in other case study sites.

- **Asset Management.** The benchmark cost to operate public housing that is produced through the cost model includes only the estimated cost to operate each property. It does not include any asset management costs. GSD believes that asset management is an important part of an owner’s responsibility; however, there is no uniform agreement over what those functions are or how they should be funded. As a consequence, GSD intends to supplement the case studies with research on asset management, helping to define what these functions are (and how they might differ in the context of public housing) and what would be their reasonable costs.

A suggested list of comparative tasks between property management and asset management is found in Exhibit 2.3. Which of these tasks are applicable to public housing and to what extent are they already performed and funded under the Capital Fund? For example, PHAs are currently required to prepare five-year capital plans and related physical needs assessments. These activities are eligible cost items under the Capital Fund. To the extent that public housing continues to maintain a separate capital and operating fund, these specific functions may not need additional funding.

GSD believes that it would be helpful to gain a better understanding of how private owners, as well as private and public asset management organizations (such as housing finance agencies or syndicators of low-income housing) handle and fund asset management functions. Private owners may fund these activities through cash flow or development proceeds, neither of which is currently available to PHAs under the public housing program.

Many PHAs have also indicated that they believe that operating subsidies should be available to support development-related activities. Clearly, as with any business enterprise, PHAs should be permitted to use excess proceeds to support entrepreneurial endeavors. A private management company, for example, might use profit generated by management fees to acquire or build new housing. It seems appropriate that a PHA should be able to do the same; however, the current operating funding system for public housing does not distinguish what might be called the PHA’s management fee from other operating expenses. Hence, there is no way to identify a PHA’s so-called excess revenues related to earned management fees. On a larger policy front, there is the issue of whether operating subsidies should support development related activities, beyond what a PHA might generate in retained earnings, or whether such activities should be funded separately.

- **Mixed-finance public housing.** In recent years, PHAs have been permitted to use alternative sources of financing (other than direct public housing development grants) to develop public housing, and are no longer required to own the housing. These rules have resulted in a variety of so-called “mixed-finance” properties. Such properties typically serve populations which include former residents of public housing, other residents eligible for public housing, and moderate or market level residents. The properties must respond to private lenders and other public lenders as well as HUD. Operating costs of such properties should yield interesting insights about basic and “extra” operating costs for assisted and public housing. Although small in number, GSD intends to complete a survey of the operating costs of mixed-finance properties.

- **Private management of public housing.** During the reconnaissance phase of the Cost Study, GSD examined the experience of a number of agencies contracting with private firms to manage public housing and what those experiences reveal about operating costs. GSD intends to complete this survey of private management operating costs.

Exhibit 2.3: Comparison of Asset Management and Property Management Tasks

Asset Management Tasks	Property Management Tasks
<ul style="list-style-type: none"> • Creation and revision of property-specific strategic plans. • Selection, oversight, and replacement of management agent. • Review of operating statements and other operating reports. • Approval of operating and capital budgets. • Approval of budget deviations. • Approval of major contracts, major capital expenditures and other large purchases that exceed the property manager's approval authority. • Decisions regarding legal actions by or against the owner (other than normal resident lease enforcement actions). • Interaction with lenders, regulatory agencies and other third parties regarding major issues that cannot be handled by the property management agent: refinancing decisions, major compliance issues, interventions to relieve financial or physical stresses on the property, alleged or actual defaults under governing documents. • Approve rents and leases for non-residential spaces. • Determination of policies regarding the operation of the property (tenant selection, maintenance services, lease enforcement, etc.). • Review and acceptance of audit. • Decision to acquire or develop an asset. • Decision to dispose of an asset. 	<ul style="list-style-type: none"> • Suggest revisions to property strategic plans. • Manage property subject to the management agreement. • Produce operating statements and other reports. • Develop budgets for approval. • Submit budget deviations for approval. • Submit for approval major contracts and major capital expenditures exceeding the property manager's approval authority. • Enforcement of leases and other routine legal actions (e.g., actions vs. contractors and suppliers). • Routine interaction with lenders, regulatory agencies and other third parties regarding such items as inspections, questions regarding operating statements and other reports, tenant complaints, capital expenditures, rent adjustments, and Reserve withdrawals. • Renting units (show units, process applications, prepare leases). • Collection and deposit of rent and security deposits. • Providing maintenance (subject to limitations imposed by Owner). • Receiving and investigating service requests from tenants and take action as justified. • Arranging for utilities to the property and units, as appropriate.

CHAPTER THREE

**Debt Financing for
Capital Improvements**

Chapter Three

Debt Financing for Capital Improvements

Under the Public Housing Capital Fund, the Congress appropriates modernization funds on an annual basis and each PHA receives an award equal to its relative share of the overall capital needs in public housing. In recent years, the Congress has appropriated around \$2.7 billion annually for public housing modernization, which amounts to an average of about \$2,100 per unit annually.

As indicated in the April Report, GSD believes that it is worthwhile to examine the feasibility of implementing a new financing program for public housing that is more like assisted housing.²¹ Such a program would allow PHAs to:

- use debt financing to secure large amounts of funding to resolve capital needs now;
- plan capital improvements in a more rationale manner; and
- establish sufficient replacement reserves.

GSD intends to conduct further research on converting from this annual capital grant program to a program of long-term debt financing for capital improvements. This section discusses how GSD will carry out such research.

3.1 Research Objectives

The objectives for this research are to examine the following:

- the overall feasibility of converting to a new financing program for public housing capital improvements;
- the potential sources of financing (FHA, state housing finance agencies, conventional lenders, etc.);
- the ease/difficulty in obtaining such financing;
- the terms, financing structures, required credit enhancements, etc.;
- the amount of debt financing and the cost of that financing;

²¹ The differences in financing between public and assisted housing are primarily in three areas. First, public housing receives its operating funding on an agency-wide basis and not on a project-specific basis and is free to allocate these funds among properties and among uses. Second, capital improvements are funded through a capital grant, in which PHAs receive a fair-share allocation of the annual appropriation for public housing modernization (based on their percentage of the total capital needs in public housing). This fair share amount generally represents only a small percentage of a PHA's total capital needs. In assisted housing, debt service payments for capital work are factored into the operating subsidy to the property at the time the project is developed. Third, the public housing subsidy mechanism has not incorporated funding for the establishment of a replacement reserve account. Please see April Report for a more detailed discussion.

- the level of rehabilitation required, both to maintain the stock as conventional public housing and to attract a mix of incomes (up to what might be comparable to tax-credit housing);
- the expected replacement reserves necessary to sustain the subject properties, and the experience of comparable assisted housing in each locale; and
- a comparison of the current funding available to the subject agencies under the public housing program and the amount needed under this alternative funding arrangement, i.e., a calculation of the annual allocation of funds to retire debt and fund replacement reserves under various assumptions of loan terms.

This research will also examine whether conversion to a debt-financing model can be done on one or more but not all of an agency's projects. Further, this research will examine whether such a program could be accomplished by maintaining aggregated agency funding as opposed to converting to a system of project-based funding and financial reporting (in the April Report, GSD indicated its preference for the latter; however, a number of public housing industry groups expressed desire to maintain the former).

3.2 Approach

GSD plans to conduct feasibility studies in four to six agencies, including an initial test site to develop the overall protocol. The agencies selected will include a range of size and property characteristics.

There will be four phases to the work in each agency. A description of each of these phases is detailed below.

Phase I: Property Based Capital Analysis and Site Visits

GSD will begin the work under this phase by identifying with agency staff a representative sample of properties for which to conduct detailed site visits (in smaller agencies, GSD may conduct site visits at all properties). The properties should contain a mix of building types—family/elderly, design, age, condition, neighborhood location, etc.

Once the properties have been identified, GSD will meet with the appropriate staff in the agency to obtain (as available) the following information about each property:

- Number of Units
- Distribution of Units by Number of Bedrooms
- Unit Features/Project Amenities
- Property Age
- Age of Major Systems
- Last Major Rehabilitation
- Annual Turnover
- Agency Estimate of Existing and Future Capital Needs of Property
- Agencywide Capital Funding Resources

After completing this data collection, GSD will visit each of the selected properties to develop its own estimate of the capital needs of each assuming that the property continues to operate as

traditional public housing. Part of this analysis is to identify and evaluate items that may have been omitted from the agency's own physical needs assessment (PNA) or to update that PNA. The analysis will also be used to determine the annual replacement reserve necessary to assure proper upkeep of the development.

GSD will also insure that, during this phase, sufficient data are collected to estimate the cost of upgrading each property to a level where it could attract a mix of incomes, as established under Phase II.

Phase II: Upgrade Public Housing to Tax Credit Standard Analysis

In the second phase, GSD will examine tax credit properties with a mix of incomes in the local market to better understand the package of property amenities and unit features which might allow public housing to attract a mix of incomes. GSD will try to limit the visits to tax credit properties in the same or similar neighborhoods to those where the public housing developments visited are located.²² For each of the tax credit properties, GSD will collect information on the following characteristics.

- Age of Development
- Number of Units
- Distribution of units by Number of Bedrooms
- Unit Sizes
- Unit Features
- Project Amenities
- Tenant Profile

Once GSD has determined the level of features and amenities which may be necessary to attract a mix of incomes to public housing developments visited, GSD will prepare a cost estimate to determine the additional capital cost associated with these upgraded amenities and features.

Phase III: Financial Instrument Development

Concurrent with the site visits, GSD will begin an interview process to determine if there is a local solution to financing improvements in each public housing community. Specifically, GSD will meet with the local banking community, State Housing Finance Agency, Community Development Department, and active not-for-profit and for-profit funders/developers of assisted housing to determine the existing financing programs available for affordable housing in the community, the potential to develop a localized program to fund public housing improvements, and the potential cost/requirements to be able to utilize such a program for public housing. GSD will additionally look at debt service coverage ratios, necessary capital replacement reserves, and cost of borrowing which may be associated with such a program. GSD will specifically be examining the potential of utilizing unsecured conventional financing, State affordable housing financing, credit enhancements and tax credits, etc., to fund such an effort.

²² Given the interest to deconcentrate poverty and achieve a broad range of incomes in public housing, it seems appropriate to consider the cost of upgrades necessary to achieve these goals. GSD believes that tax credit properties generally can provide such a standard since they are often marketed to families with incomes at between 40 to 60 percent of median income. However, GSD also recognizes that some tax credit properties rely heavily on Section 8 Housing Choice Vouchers for occupants and, as such, may not represent a sufficient market test (they may provide a higher or lower level of amenities than required to meet families with incomes at between 40 and 60 percent of median). GSD will be careful to identify where this condition exists.

Phase IV: Capital Funding Plan and Related Discussion with Agency Staff

Once GSD has collected all the necessary information, it will develop a capital budget for each of the properties under two scenarios (traditional public housing and upgraded public housing), and present to agency staff the overall financial feasibility of implementing a new debt financing program for these properties. Within this analysis GSD will determine the cost and treatment of a modest additional sum of funding to insure adequate debt service coverage and the cost of capital reserves necessary to self-sustain the property over the long term without the need for additionally authorized funding.

At the completion of the agency-specific feasibility studies, GSD will prepare a cross-site report and analysis.

CHAPTER FOUR

Utilities

Chapter Four

Utilities

Under the PFS/Operating Fund, PHAs are funded for utilities according to a three-year average of consumption, adjusted for current rates. At year-end, PHAs reconcile this budgeted amount and are held harmless for any changes in rates but retain 75 percent of the savings associated with decreases in consumption (and bear 75 percent of the costs associated with increases in consumption).²³

Earlier this year, GSD contracted with an energy consultant to conduct a feasibility study of changing from the current utility reimbursement system to one based on norms for utility use in private housing. This section of the *Draft Research Design* discusses the progress of GSD's research in this area and the recommended next steps.

4.1 Activities Undertaken

GSD's utility analysis has completed the following tasks:

- reviewed HUD's present and past efforts regarding utilities and utility conservation;
- selected for study four PHAs in different parts of the country with different program sizes, utility arrangements and fuel combinations. A profile of these four agencies is shown in Exhibit 4.1;
- procured a qualified utilities consultant to undertake field work;
- obtained utility data sets for FHA housing in the same localities as the PHAs in the field sample and obtained other data from IREM publications, the Department of Energy Residential Energy Consumption Survey, and selected military housing facilities;
- undertook a field survey including the following:
 - inspected most of the developments in each housing authority (not including scattered sites), including typical apartment utility spaces and plumbing, heating, and air conditioning equipment;
 - interviewed maintenance and management personnel regarding utility efforts and issues;
 - noted any energy and/or water conservation efforts and generally evaluated the standards of facilities management practices;
 - obtained cost and consumption information for each development;
 - conducted an exit conference with the respective agencies and shared preliminary observations; and

²³ This 75-25 cost sharing in consumption savings was the result of a recommendation by the Neg-Reg Committee; previously, the cost sharing was 50-50.

- identified comparable private multifamily properties in the same communities, visited these properties and requested utility costs and consumption data from their owners or managers. This information was only obtained in a small number of cases.
- began consideration of an energy modeling or heat loss calculation approach; and
- organized and tabulated data collected and completed during the first level of analysis.

Exhibit 4.1: Profile of Four PHAs Selected for Utility Cost Study

Agency	Family Properties		Elderly Properties		Total Units
Providence Housing Authority	8	1,228	8	1,132	2,360
Akron Metropolitan Housing Authority	19	2,790	13	1,880	4,670
Reno Housing Authority	5	474	4	284	758
Athens Housing Authority	10	1,167	1	115	1,282

4.2 Next Steps

GSD will complete its utility research by undertaking the following:

- obtaining additional data sets, adding them to the current utility database, and re-tabulating the utility database;
- completing the data analysis and developing recommendations;
- continuing efforts to analyze standards for water consumption;
- undertaking further review as to how utilities costs are projected for Section 8 FMRs and FHA mark-to-market processing;
- reviewing the project underway in New York State to establish a benchmarking system for utilities in subsidized housing;
- reviewing of the effort by the Department of Defense, which has achieved energy savings in its military housing; and
- further reviewing the methods and reliability of the energy modeling approach.

Upon completion of this work GSD will issue a report that presents findings of this research, evaluates policy options, makes recommendations for a utilities funding system, and recommends any additional efforts needed to implement such a system.

CHAPTER FIVE

Project Schedule

Chapter Five

Project Schedule

The following is a schedule of key events and tasks leading to completion of the Cost Study. In all, GSD plans to conduct the case study pilot sites in August; to complete the model-building process in September; and to conduct the final case studies in the latter part of the year. Final recommendations will be prepared in January, 2002.

July

- Finish cleaning FHA Annual Financial Statements for Fiscal Year 2000.
- Obtain FHA property variables from FOMNS (Field Office Multifamily National System) and integrate into data set.
- Obtain REAC physical inspection results on individual items that may reflect high capital needs.
- Obtain additional MSA variables, e.g., unemployment rate, population size, population density, etc.
- Run regression models with dependent variables based on Fiscal Years 1999 and 2000 Annual Financial Statements.
- Test alternative stratifications of the data by assistance type and sponsor type.
- Test additional forms of variables based on industry comments.
- Test alternatives to MSA level dummy variables (MSA labor market variables, stratification of model by MSA size and region, etc.).
- Test models that include REAC and FOMNS variables.
- Develop parallel models based on National Apartment Association (NAA), Rural Housing Service (RHS), and proprietary data.
- Finalize instructions for research teams for case study pilot sites.
- Finalize research on differences in regulations between public and assisted housing.
- Conduct initial site visit for financing program.
- Finalize protocols for subsequent financing site visits.
- Complete data collection for utility analysis.
- Finalize protocols and conduct training for field testing researchers.

August

- Complete development of parallel models based on NAA, RHS, and proprietary data
- Perform additional tests of the predictive power of the model.
- Refine model based on comparisons with other models and with additional review and feedback from Cost Study team.
- Conduct financing program site visits.
- Conduct “field testing.”
- Conduct training for case study researchers.
- Conduct pilot site case studies.
- Prepare recommendations for utility funding.

September

- Refine and complete costing model based on “field testing” against portfolios of public housing developments, exclusive of regulatory/operating environment adjustment.
- Finalize protocols for case studies based on pilot sites.
- Conduct analysis of distressed properties.
- Begin case studies.
- Prepare analysis/recommendations for financing program.
- Complete research on asset management, mixed-finance properties, and private management of public housing.

October

- Continue case studies.

November

- Continue case studies.

December

- Complete case studies.
- Develop adjustment amount for PHAs’ regulatory and operating environment.

January

- Merge model findings, adjustment for regulatory and operating environment, asset management, and utilities into database.
- Apply model to public housing properties.
- Prepare final recommendations.

APPENDIXES

Appendix A

List of Regional Public Meetings

GSD Public Housing Operating Cost Study Regional Meetings Schedule

Discussion of Research Issues and Initial Recommendations for Review, April 2001

Thursday, April 12, Worcester, MA, 10:00 AM – 1:00 PM
CROWN PLAZA HOTEL, 10 LINCOLN SQUARE, WORCESTER, MA 01608

Monday, April 16, Kansas City, MO, 10:00 AM – 1:00 PM
HYATT REGENCY CROWN CENTER, 2345 MCGEE STREET, KANSAS CITY, MO 64108

Monday, April 16, Pittsburgh, PA, 10:00 AM – 1:00 PM
HYATT REGENCY PITTSBURGH INTERNATIONAL AIRPORT, 111 AIRPORT BLVD., PITTSBURGH, PA 15231

Tuesday, April 17, Chicago, IL, 10:00 AM – 1:00 PM
HYATT ROSEMONT NEAR O'HARE INTERNATIONAL AIRPORT, 6350 NORTH RIVER ROAD, ROSEMONT, IL 60018

Tuesday, April 17, Atlanta, GA, 10:00 AM – 1:00 PM
HYATT REGENCY ATLANTA, 265 PEACHTREE STREET NE, ATLANTA, GA 30303

Friday, April 20, Newark, NJ, 10:00 AM – 1:00 PM
HILTON GATEWAY HOTEL, ACROSS FROM NEWARK PENN STATION, 1 GATEWAY CENTER, RAYMOND BLVD., NEWARK NJ 07102

Wednesday, April 25, Denver, CO, 10:00 AM – 1:00 PM
HYATT REGENCY TECH CENTER, 7800 E. TUFTS AVENUE, DENVER, CO 80231

Thursday, April 26, San Francisco, CA, 10:00 AM – 1:00 PM
WESTON HOTEL SAN FRANCISCO AIRPORT, 1 OLD BAYSHORE HIGHWAY, MILLBRAE, CA 94030

Friday, April 27, Dallas, TX, 10:00 AM – 1:00 PM
HYATT REGENCY DFW INSIDE DALLAS/FORT WORTH AIRPORT, INTERNATIONAL PARKWAY, DFW AIRPORT, TX 75261-9014

Monday, May 7, Portland OR, 2001 Annual PHADA Convention, 2:15 – 5:00 PM
PORTLAND MARRIOTT DOWNTOWN ON THE WATERFRONT, 1401 SW NAITO PARKWAY, PORTLAND OR, 97201 (SEE WWW.PHADA.ORG)

Monday, May 30, 2:30 – 4:30
INTERACTIVE BROADCAST HOSTED BY HUD TO FIELD OFFICE SITES.

Appendix B

List of Comments/Questions

The following is a list of the major comments received on GSD's April 2001 report, *Discussion of Research Issues and Initial Recommendations for Review* (April Report). These comments are grouped below into seven main areas, along with GSD's response. Please note that these comments represent only those expressing concern with GSD's recommended approach; they do not include comments that were supportive of GSD's recommendations.

1. Comments regarding similarities and differences in regulations/operating environment between public and assisted housing.

1a. Comment: Various comments were received suggesting additional items of similarities and differences in regulations that were not included in GSD's April Report.

Response: GSD has expanded the chart of similarities and differences (see Appendix D in this report, Comparison of Federal Rules and Regulations in Operating Public and Assisted Housing). Additional items that were added include the pet rule and deconcentration.

1b. Comment: Various comments were received suggesting that certain regulatory items identified in the April Report as "similar" may in fact be different between public and assisted housing.

Response: Upon review, GSD has reclassified some items.

1c. Comment: Various comments were received indicating that it is not so much that the regulations are different but that the enforcement of those regulations is different.

Response: The issue of differences in enforcement will be reviewed during the case study process.

1d. Comment: Various comments were received regarding the impact on PHAs of a higher level of public scrutiny or the belief that PHAs are held to a higher standard or expectation.

Response: This is also an area for examination during the case studies.

1e. Comment: A comment was received indicating that, while the regulations between public and assisted housing may be similar today, they may have been more different in the past and PHAs may still be affected by these past regulations.

Response: GSD will ask PHAs for such information during the case studies.

1f. Comment: Various comments were received regarding special requirements imposed on PHAs by states or localities, e.g., audit requirements dictated by state law.

Response: The case studies will attempt to catalogue the range of locally-mandated costs. It is expected that these will vary from community to community. Ultimately, the decision to fund these local mandates with federal operating subsidies will likely be a policy issue outside the scope of the Cost Study.

1g. *Concern:* Various comments were received indicating that the overall regulatory burden in public housing is huge. One industry group estimated that burden to be over \$500 million annually.

Response: Because GSD is using a benchmarking system, the issue is not that there are public housing regulatory costs (assisted housing has regulatory costs, too), but that these regulations may be different from assisted housing or that there are differences in enforcement.

1h. *Comment:* Various comments were received indicating that PHAs are more than the sum of their properties (or, that they should be funded at more than the cost of simply operating the real estate). Other functions mentioned include: local housing planning functions, resident services, development of affordable housing, etc.

Response: It is accurate that the benchmark costing model will not address these other functions, since these are functions that are not provided in the operating costs of FHA assisted housing. GSD intends to examine these additional duties or functions through the case studies. As with locally-mandated requirements, the funding of these items will ultimately be a policy issue.

2. Comments regarding the use of FHA assisted housing as a benchmark.

2a. *Comment:* Various comments were received expressing concern over the “quality” of management in FHA-assisted housing, whether such housing is an appropriate standard for public housing, and the standard of service provided.

Response: GSD believes that there is unquestionably a large amount of assisted (and unassisted) FHA housing whose quality is more than acceptable to use for benchmarking purposes. The average REAC physical inspection scores for FHA assisted and unassisted housing is 83 (out of 100). As indicated in Chapter One of this report, GSD will be examining whether to exclude from the database properties with low REAC scores.

2b. *Comment:* Various comments were received requesting more information on how GSD will determine what qualifies as “well-run” FHA housing.

Response: As outlined in Chapter One in this report, GSD may exclude from the FHA database, for purposes of modeling, properties with extremely low REAC scores. GSD will also examine whether there is a relationship between costs and low REAC scores. GSD has not determined the actual REAC score that will be used for such a threshold. Several have also suggested that GSD supplement REAC scores with Field Office-supplied assessments of each property. GSD will explore this option.

2c. *Comment:* Various comments were received expressing concern that FHA assisted and public housing tenant profiles are not sufficiently comparable.

Response: According to tabulations run from *A Picture of Subsidized Households*, the tenant profiles in public and assisted housing are quite similar. The key is not whether there is an exact match, but whether there is sufficient overlap to construct a model. GSD believes this to be the case.

2d. *Comment:* Various requests were made to provide regional demographic comparisons between public and assisted housing tenants.

Response: This information was distributed at an industry meeting on Friday, June 15, and at GSD's June 25, 2001, monthly public meeting. These tables are now posted on GSD's web-site. These tables indicate that, at the regional level, the demographic profile of public and assisted housing is quite similar.

- 2e. Comment:** Various comments were received requesting that GSD use only "fully-assisted" properties, excluding both unassisted properties and partially-assisted properties.

Response: GSD's proposed use, and accompanying rationale, for these different data sets is explained more fully in Chapter One of this report.

- 2f. Comment:** Various comments were received expressing concern that the physical attributes of FHA assisted housing may not be sufficiently comparable to public housing—for example, FHA assisted housing has fewer large properties and fewer properties with a preponderance of large units.

Response: As with the tenant demographics, GSD believes that the physical attributes of FHA assisted housing are sufficiently similar, and have sufficient overlap, to construct a model. When using multiple regression techniques, it is not necessary that the characteristics match precisely, but only that there is enough overlap to construct a model that adjusts for differences.

- 2g. Comment:** Various comments were received expressing concern that FHA assisted housing may suffer from the same "circularity" issues as public housing.

Response: GSD has indicated that some FHA properties may not face sufficient market pressures on operating costs. Various industry experts have predicted that the following categories of privately owned assisted housing may carry higher operating expenses than necessary: (a) nonprofit-owned properties (on the theory that nonprofits are less concerned about efficiency); (b) properties with budget based rents (on the theory that the ability to pass costs through the budget lessens efficiency); and (c) limited distribution properties that have high cash flow potential (on the theory that the inability to pocket incremental cash flow lessens efficiency). GSD is testing the FHA data to see if these factors are in fact cost drivers. To the extent that the statistical analysis can identify such factors as cost drivers, GSD will attempt to correct for such in the final cost model. The notion has also been advanced that the operating costs of assisted properties with budget-based rents may be artificially constrained. The theory here is that HUD does not approve sufficient rent increases to allow the properties to be adequately maintained. GSD's discussions with industry experts lead GSD to believe that, over time, although maybe not every year, the owners of these properties are able to obtain rent increases to allow adequate operating resources. For FHA assisted properties, HUD has a financial interest in making sure the property does not go into default. Even with these concerns, the situation is far different from public housing, where, for all practical purposes, the formula for determining operating funding has remained constant since 1975, without any real opportunity for appeals or adjustments.

- 2h. Comment:** Various comments were received expressing concern that the financial motivations of owners of assisted housing may affect operating costs.

Response: In general, GSD expects FHA owners to operate efficiently because they are concerned about having positive cash flow and making a profit. To the extent that FHA owners expect to sell properties soon, they would want to provide adequate levels of maintenance and other housing services. On the other hand, owners who think they may

- sell to an entity that will substantially rehabilitate the property may defer maintenance. GSD will test these ideas by looking at patterns of operating costs for FHA properties that are nearing the date of expiration of their subsidy contracts.
- 2i. Comment:** Various comments were received requesting information on the level of profit in FHA-assisted housing and the amounts contributed to reserves.
Response: This information will be examined in the multivariate analysis of the FHA database and will be available during the second phase of the Cost Study.
- 2j. Comment:** Various requests have been made to obtain from GSD the addresses of FHA properties as well as other cost and property characteristics.
Response: GSD has formally requested permission to provide this information (GSD's Cooperative Agreement with HUD restricts the disclosure of any such information without the approval of HUD.) HUD has indicated that any distribution of information on FHA housing should be handled directly through the Freedom of Information Act and not through GSD.
- 2k. Comment:** Various comments were received expressing concern that the FHA database does not include enough variables on each property (acreage, topography, square footage, median age, physical condition, etc.).
Response: GSD believes it will be able to test the effect on operating costs of age, physical condition, and square footage. When GSD compares the model's results with expert opinion on the costs to operate 50 individual public housing properties, one of the things GSD will look for is whether there are construction or site characteristics that influence costs that are not accounted for in the model.
- 2l. Comment:** Various comments were received stressing the importance of neighborhood location as a driver of costs.
Response: GSD's multivariate analysis of the FHA database is examining location as a key variable impacting operating costs (see Chapter One in this report).
- 2m. Comment:** Various comments were received expressing concern that FHA housing might have lower operating costs where owners intend to sell or refinance their properties.
Response: GSD will test this idea by looking at operating cost patterns for properties that are approaching the date when their subsidy contract expires.
- 2n. Comment:** Various comments were received expressing concern that public housing has a different mission than assisted housing.
Response: Under the Annual Contributions Contract, PHAs must "develop and operate each public housing property solely for the purpose of providing decent, safe, and sanitary housing for eligible families in a manner that promotes serviceability, economy, efficiency, and stability of the project, and the economic and social well-being of the tenants." The extent to which public housing's mission is substantially different than assisted housing will be explored in the case studies.

- 3. Comments regarding use of a regression model to predict public housing costs at a property level.**
- 3a. *Comment:*** Various comments were received requesting more information on the methodology GSD will use to develop the regression models, including how GSD will evaluate the predictive abilities of that model.
Response: These issues are addressed in Chapter One of this report.
- 3b. *Comment:*** Concern over how GSD proposes to use, and whether to use, REAC data.
Response: A discussion of how GSD proposes to use REAC data is described in Chapter One of this report.
- 3c. *Comment:*** Various comments were received regarding how GSD will capture the impact of capital needs on operating costs.
Response: This issue is addressed in Chapter One of this report.
- 3d. *Comment:*** Various comments were received expressing desire to know how GSD will measure neighborhood distress.
Response: GSD is testing various measures of neighborhood distress, including poverty rate, extent of welfare dependency, and percentage of single parent households in the census tract in which the property is located.
- 3e. *Comment:*** One comment was received expressing concern that metro area identifiers are not that precise and may not capture important intra-market cost factors.
Response: Absent a study approach that would conduct comparability studies of each individual public housing property, unusual site characteristics will be difficult to pick up in the model. Please see response to the question on appeals, below.
- 3f. *Comment:*** Various comments were received indicating concern that a regression model will be better at predicting “portfolio” costs than “project” costs.
Response: GSD agrees that any model will be more accurate for a portfolio of properties than for any particular property. The alternative to conducting a regression model, however, would be to conduct local comparability studies of each property, which would be well beyond the resources of the Cost Study. The property-vs-portfolio issue exists regardless of the database used.
- 3g. *Comment:*** Various comments were received suggesting that GSD test the FHA database for quality.
Response: GSD is convinced of the high quality of the FHA database, both from examining the way in which the data elements that feed into the database are created and from cleaning the data for internal consistency and other standard checks. The April Report provides more details.
- 3h. *Comment:*** Various comments were received suggesting that GSD produce a “range” of costs for each property as opposed to one figure.
Response: Under the costing model, GSD plans to produce one figure for each property, which GSD expects to be the estimated cost within a certain range.

4. Comments regarding GSD's Recommendation to not Base the Cost Study on a "Sample of Well-Run PHAs"

4a. Comment: Various comments were received expressing concern that GSD has not spent enough time attempting to examine existing PHA costs or to develop an appropriate methodology for capturing/examining those costs.

Response: As indicated in the Executive Summary of this report, GSD's recommendation to use a methodology that benchmarks the cost of operating public housing against the cost to operate FHA assisted housing is based primarily on the issue of circularity.

4b. Comment: One industry group expressed concern over GSD's rejection of the component costing approach, referring to "successful HUD research that used a component costing basis."²⁴

Response: The referenced report does not constitute a component costing study. In fact, the report clearly states that it has made "no effort to determine what the costs of administering the certificate or voucher programs should be." Instead, the primary research method used in the HUD study for determining whether Section 8 administrative fees should be revised was to analyze the extent of year-end surplus revenue across PHAs of different sizes who operate these programs. HUD's 1994 report, however, does reference a 1988 study by Abt Associates, funded by HUD, in which Abt examined the operating costs of a sample of agencies administering the Section 8 program.²⁵ Please note that this Abt study only measured how much PHAs were spending and how those amounts compared to administrative fees earned. The Abt study did not determine what should have been spent nor did it evaluate the results of spending. Importantly, there was industry criticism of the allocation of overhead and non-labor costs used in that study, notably:²⁶ "PHAs have never been required and have no need to precisely define and attribute costs to the certificate and voucher programs. Since PHAs were never required to allocate precisely, their estimates are unlikely to be sufficiently accurate."²⁷ Further concerns were expressed regarding the "inevitable inaccuracy of time studies of PHA activities since PHA staff are not used to such reporting." It seems that these same criticisms and concerns would be advanced if GSD recommended component costing as a methodology for establishing the cost of operating well-run public housing.

4c. Comment: Various comments were received suggesting that, in actuality, PHAs do capture project level data and, therefore, it is unnecessary to examine costs in assisted housing.

Response: In its April Report, GSD indicated that, even if one could get around the circularity issue, insufficient project-level operating cost data exist for the development of a costing model that would predict what it should cost to operate public housing of different building types and characteristics (high-rise, garden, scattered sites, etc.). Public housing is not required to report financials on a project-level basis nor is there any review of such reports by HUD. In contrast, HUD-assisted properties are not only

²⁴ Division of Policy Development, Office of Policy Development and Research, *Section 8 Administrative Fees: A Report to Congress*, prepared for U.S. Department of Housing and Urban Development, June 1994.

²⁵ Mireille L. Leger and Stephen D. Kennedy, *Administrative Costs in the Housing Voucher and Certificate Programs*, prepared for the U.S. Department of Housing and Urban Development by Abt Associates Inc., June 1988.

²⁶ Comments by the Council of Large Public Housing Authorities on "*Administrative Costs of the Housing Voucher and Certificate Programs*", October, 1988, CLPHA.

²⁷ *Ibid*, Attachment, p. 7.

required to report costs on a project-by-project basis but those reports must be audited. At several of the agencies studied during the reconnaissance phase that are regarded as among the more decentralized PHAs in terms of property management. GSD found that half or more of the non-utility costs in those agencies were not directly charged to the properties but were centrally incurred. Any effort to assign these centralized costs to each property would be an extremely time-consuming undertaking and would require a consistent level of detailed tracking of expenses over a several year period that is not currently required of PHAs. In the end, this method would likely fall to simple allocation systems—for example, assigning the same percentage of fleet maintenance costs to two 200 unit developments even if one were a single building high-rise next to the central maintenance garage and the other were scattered sites spread throughout the locality. Clearly, such allocation schemes do not capture the true costs of managing different types of properties. Further, because of the effort associated with such a task, GSD would be limited in the number of agencies that it could study. In contrast to public housing, cost information on over 10,000 FHA assisted properties is (1) readily accessible, (2) captured at the project level, (3) audited, and (4) available for multiple years.

4d. Comment: Various comments were received concerning the fact that the Public Housing Assessment System (PHAS) is changing and, therefore, GSD should either not study public housing costs at this time or will not be able to estimate the future costs as PHAS changes.

Response: The issue is not PHAS itself but how similar PHAS is implemented relative to assisted housing, which does not have PHAS, per-se, but has REAC physical inspections and financial reporting requirements. Assisted housing will soon also have resident surveys. GSD cannot predict what changes in PHAS may occur in the future.

5. Comments regarding case studies.

5a. Comment: Various comments were received requesting that GSD expand the number of case studies to be conducted.

Response: GSD had expressed orally at the Regional Public Meetings and at the Monthly Public Meetings that it had considered conducting between 6-12 case studies. GSD now intends to conduct between 20-30 case studies.

5b. Comment: Various comments were received regarding how the case study agencies will be selected and how GSD will determine what is “well-run.”

Response: The selection of case study agencies is discussed in Chapter Two of this report.

5c. Comment: Various comments were received requesting industry review of the case study protocols.

Response: As previously indicated, GSD will share the draft protocols with the industry for review before they are finalized. Also as indicated in this report, GSD plans to conduct approximately six pilot case studies, one of the purposes being to help design the final case study protocols.

5d. Comment: Various comments were received requesting that GSD consider “self-reporting” or sending surveys to PHAs regarding their operating costs.

Response: GSD is willing to examine this approach as a supplement to the case studies; however, it is not clear how survey responses can be verified.

5e. Comment: One comment was received requesting that GSD test the predictive power of the “adjustment factor” resulting from the case studies against a number of agencies.

Response: GSD has not incorporated this comment. Other than more case studies using the same methodology, there would be nothing to test the adjustment against.

6. Comments regarding the Cost Study’s recommendation of a new financing program for public housing.

6a. Comment: Various comments were received regarding the need for possible credit enhancements to allow PHAs to move to a debt-financing model for capital improvements.

Response: GSD plans to conduct four to six feasibility studies of this debt-financing model at selected PHAs. The need for special credit enhancements will be examined as part of these feasibility studies.

6b. Comment: Various comments were received expressing concern that HUD’s Office of Public and Indian Housing would not have the capacity to implement GSD’s recommendations.

Response: Indeed, new skills would be needed, necessitating, among other implementation issues, a transition period.

6c. Comment: One respondent commented that FHA insurance is too cumbersome a tool, limiting its attractiveness.

Response: Although FHA insurance would not necessarily be required under this approach, GSD will examine the opportunities and constraints of FHA insurance during the feasibility studies.

6d. Comment: Various comments were received suggesting the need for either a demonstration program or a transition period.

Response: To the extent that the recommendations would be adopted on a large scale, a transition plan would appear to be essential. Demonstration programs have often proven successful in the past, and may be an option for HUD to consider.

6e. Comment: Various comments were received expressing concern over the recommendation for project-based budgeting.

Response: Project-based budgeting/funding is a fundamental aspect of both conventional and assisted housing. For reasons expressed in the April Report, GSD feels that it would have a number of important ancillary benefits, including greater accountability. During the feasibility studies, GSD will examine whether debt financing of capital improvements could be possible without project-based budgeting.

6f. Comment: Various comments were received expressing doubt that Congress/HUD would ever allow PHAs to accrue replacement reserves or would change the way public housing modernization is funded today (direct grants as opposed to debt financing).

Response: The approach recommended is already an established way of financing HUD-assisted housing. GSD also believes that this approach would lead to a more effective program and result in lower long-term costs, coupled with better quality public housing.

6g. Comment: Various comments were received on whether \$1,000/unit annually in replacement reserve funding would be adequate.

Response: On the one hand, affordable housing properties are routinely financed with replacement reserves in the vicinity of \$300 to \$500 per unit annually. On the other hand, a study completed for HUD in 1998 estimated “accrual” needs in public housing at \$1,679/unit annually.²⁸ Since publication of GSD’s April Report, various operators of assisted housing have commented that this \$1,000 figure seems more than adequate to fund replacement reserves. GSD will examine replacement reserve practices in association with its feasibility studies.

6h. Comment: One comment was received indicating concern that HUD would dictate too many of the standards and items for capital improvements under a debt financing program.

Response: It is likely that both HUD and the lender will scrutinize the proposed capital improvements more fully under a debt financing model than under the current Capital Fund program.

7. Other Comments/Concerns

7a. Comment: Various comments were received regarding the adoption of a process to appeal the model-predicted costs for any property.

Response: Although any appeals process would likely be implemented by HUD, and not GSD, one method for implementing such a mechanism would be for HUD to publish a uniform appeal protocol, in which PHAs wishing to appeal would be permitted to conduct their own comparability studies, comparing their public housing stock with assisted properties in their locales. PHAs would be required to bear the cost of such studies, in much the same way that PHAs may now appeal HUD-published Fair Market Rent levels by conducting random digit dialing surveys. HUD might limit appeals to certain classes of properties or agency characteristics not well represented in the model. HUD might further establish a threshold whereby the model-predicted costs could not be appealed unless the PHA-conducted comparability study resulted in an increase in costs of more than five or ten percent. GSD’s field testing of a sample of 50 public housing properties should prove to be a valuable experience in developing the protocol for such an appeals process.

7b. Comment: Various comments were received regarding the use of private housing as a benchmark for determining utility costs in public housing, especially given public housing’s design or condition.

Response: In accordance with the project schedule, GSD will be preparing recommendations in the area of utility subsidies in August, 2001. These recommendations will be based on field research at the four PHAs previously described in Chapter Four of this report. These recommendations will take into consideration issues of design and condition.

²⁸ *Formula Capital Study: Capital Needs of the Public Housing Stock in 1998*, prepared for the U.S. Department of Housing and Urban Development by Abt Associates Inc., March 2000.

7c. Comment: Various comments were received expressing the need for transition relief for PHAs that may be adversely affected by any resulting formula.

Response: While the decision regarding transition relief is beyond the scope of the Cost Study, experience seems to indicate that transition periods are commonly associated with any major change in federal funding formulas.

7d. Comment: Various comments were received regarding the impact of the Cost Study on smaller PHAs and the cost-effectiveness of smaller agencies.

Response: GSD believes that there are a sufficient number of FHA assisted properties with similar characteristics to smaller PHAs to model their costs. As previously indicated, GSD is also examining the feasibility of using Rural Housing Service data as a proxy for small PHAs. As to the cost-effectiveness of smaller agencies, this is not an area of inquiry for the Cost Study.

7e. Comment: Various comments were received regarding the future role, if any, of the Operating Fund Negotiated Rulemaking Committee in the Cost Study.

Response: As indicated in the Executive Summary in this report, GSD has no formal authority to reconvene the Neg-Reg Committee, but would look forward to working with it were it to be reconvened.

7f. Comment: Various comments were received regarding how GSD will handle distressed properties.

Response: A discussion of GSD's approach to distressed properties is found in Chapter One of this report.

7g. Comment: Various comments were received regarding information on the operating costs of "mixed-finance" properties.

Response: GSD conducted a survey of mixed-finance properties during the reconnaissance phase of the Cost Study. Although that research is not complete, and although the number of properties surveyed was less than 30, preliminary results indicated that there were no apparent patterns in costs. GSD intends to complete this survey and publish its findings.

7h. Comment: Various comments were received requesting information on operating costs in military housing.

Response: The military has been undergoing similar attempts to determine what it should cost to operate military base housing, whose costs appear to be significantly higher than conventional housing.

7i. Comment: Various questions were received regarding information on state public housing.

Response: The experience in New York and Massachusetts, with approximately 20,000 and 50,000 units, respectively, suggests that these state public housing programs are seriously underfunded relative to federal public housing.

7j. Comment: Various questions were received regarding the experience of private management of public housing.

Response: As indicated in Chapter Two of this report, GSD plans to complete research on private management of public housing in the second phase of the Cost Study.

7k. Comment: Various comments were received requesting additional vehicles for involving industry representatives in the Cost Study process.

Response: As indicated in the Executive Summary in this report, GSD suggests forming a research working group to review the draft case study protocols and provide feedback on the model building process and the case study data.

7l. Comment: Various comments were received requesting that GSD not prepare a final research design without first finalizing the case study protocols.

Response: GSD has rejected this recommendation. GSD believes that it is important to move forward with the model-building process.

Appendix C

Case Study Pilot Sites: Research Team Instructions

C.1 Introduction

This document provides instruction for the research teams that will pilot test the case study process under the Public Housing Operating Cost Study.

Each case study team will include one member who is an expert in operating assisted housing and one member who is an expert in operating public housing. Teams will visit at least one PHA of each size (small, medium, and large). Following completion of the site visits to the case study pilot sites, GSD will convene a meeting of the research teams to review observations and recommendations for protocol development for future case studies.

C.2 Objectives

Using standard statistical techniques, and based on a large database of FHA-insured properties, GSD will be developing a model that estimates the cost to operate each public housing property as if it were assisted housing, adjusting for such property characteristics as design, location, number of large bedrooms, etc. The research to be done under the case studies is intended to determine the appropriate adjustment or adjustments to the cost model for such factors as public housing's unique regulatory and operating environment.

The primary objective of the case study pilot sites, therefore, is to assist in developing the protocol for the final case studies. Secondly, the research teams will attempt to identify the actual cost drivers in these pilot agencies, as described below.

The pilot sites are an opportunity for GSD to explore different avenues for this research and different lines of inquiry, albeit within a general research framework.

C.3 Agency Selection and Preparation

In addition to representing a range of agency size, the agencies selected to participate in the case study pilot sites will have scores under the Public Housing Assessment System (PHAS) of at least an 85. These agencies will have agreed to participate in the pilot sites and should be fully familiar with the GSD's Draft Research Design and the instructions for the case study pilot sites. As part of their advanced preparation for the site visits, each agency will have submitted the following package of materials (items marked with an asterisk indicate information provided on GSD-supplied forms):

- Agency fact sheet, along with contact person*
- Organizational Chart
- Mission Statement

- Agency staffing, by position, property, and program, including vacancies
- Operating Budget (form HUD-52564) for three past fiscal years
- PFS Worksheet (form HUD-52723)
- Statement of Operating Receipts and Expenditures*
- Allocation schedule for overhead, indirect and other direct costs
- Listing of Other Operating Funding*
- State Enabling Legislation
- Description of Properties*
- Capital Budget
- Five-year capital plan
- Physical Needs Assessment
- Admissions and Occupancy Policy
- Lease
- Deconcentration Policy
- Community Service Requirement Policy
- Procurement Policy
- Pet Policy
- Grievance Policy
- Annual Plan
- Cooperation Agreement
- Resident Demographics*
- PHAS report for most recent fiscal year
- Names/types of Tenant Organizations
- Responsibility Matrix*
- Basket of Services*
- List of local mandates*
- Site maps
- Audit

Because the purpose of these case study pilot sites is to understand costs, one of the more important items listed above is the Statement of Operating Receipts and Expenditures. This form, to be completed for the most recently ended fiscal year, separates costs according to direct property expenses, centralized property management services (central leasing office, central maintenance, etc.), centralized administrative costs, and resident programs. A sample form is included as Exhibit C.1, reflecting an agency with 1,000 units and five properties.

C.4 Approach

The research teams should attempt to separate differences in costs that are a result of differences in regulations from costs that may be the result of a PHA's local operating environment, as discussed below.

Regulatory Environment

The research teams will examine how each agency implements the list of regulations unique to public housing in Appendix D: Comparison of Regulatory Similarities and Differences in Operating Public and Assisted Housing. For each item, and based on professional judgement, the research teams should attempt to answer the question, "What impact would these differences in

regulations have on operating costs were they to be imposed on an efficient operator of assisted housing?”

Operating Environment

GSD’s previous research suggests that a PHA’s local operating environment may be far more significant a factor in driving costs than differences in federal regulations. A PHA may have costs that differ from operators of assisted housing, after adjusting for both property characteristics and regulations, as a result of the following:

- **Mission.** The cost to operate public housing could be higher/lower than the cost to operate assisted housing depending on the mission of the PHA. A PHA may decide to provide a quality of housing that is substantially higher/lower than assisted housing or it may decide to serve a tenant population that is substantially more service-needy (for example, in the case of serving homeless families). Additionally, a housing authority may decide to provide substantially more property or resident services to the residents of public housing than might be traditionally provided in assisted housing. Finally, certain PHAs may be expected to play roles in their communities that extend beyond the actual operation of public housing and may include housing planning or advocacy.
- **Organization.** Public housing costs may differ from those of assisted housing because of the way in which a PHA is organized. For example, as GSD has previously observed, PHAs tend to operate under more centralized arrangements than private operators of assisted housing. These organizational tendencies may have fairly significant cost implications.
- **Local Law.** To the extent that local law (state or municipal) imposes requirements on all operators of assisted housing, those costs should be reflected in the costing model. For the purposes of the case studies, the issue is whether local laws impose unique constraints on the operation of public housing. For example, local law may require a PHA (but not a private operator of assisted housing) to provide a minimum level of security coverage in senior buildings or to provide additional due process in the case of evictions.
- **Public Entity Costs.** Costs may be higher than assisted housing as result of a PHA’s status as a public body. This can include greater demands for public access and participation in decision making. As public bodies, PHAs may also have less flexible work rules or pay higher wages and benefits, i.e., non-market-standard work rules not otherwise required by local law. Finally, there may be greater public expectations and scrutiny of activities, leading PHAs to implement regulations more elaborately than operators of assisted housing or to establish processes that place more emphasis on equity and fairness over efficiency.

Through a combination of reviews of agency materials and structured interviews, the research teams should attempt to identify local operating environment cost drivers (relative to assisted housing), and the relative magnitude of those cost drivers. Consideration should be given both to costs incurred only by the subject PHAs as well as costs incurred only by the operators of assisted housing.

C.5 Itinerary

Following review of the materials provided in advance by each agency, the case study teams should prepare an itinerary for each site visit and should forward that itinerary to the respective agencies at least one week before the site visit. This itinerary should generally include the following:

- Kick-off meeting with agency senior staff. In addition to coordinating schedules, this kick-off meeting should be an opportunity to review the submitted material, to discuss the agency's mission and organizational structure, and to understand the allocation of operating funds.
- Tour of properties. At larger agencies, it may not be practical to visit all properties. In those cases, the research teams should select a representative sample of properties.
- Interviews with appropriate agency staff. Possible agency staff that the teams may want to interview include: Executive Director, Director of Finance, Director of Resident Programs, Director of Personnel, Director of Modernization, Director of Planning, Director of Property Management, Director of MIS, and Site managers. Please note, however, that agencies differ in their organizational arrangements. For example, the Director of Planning may also be the Director of Modernization.
- Interviews with one or more local operators of assisted housing. While the research teams will include at least one expert in managing assisted housing, interviews with local operators of assisted housing will be helpful in comparing organizational arrangements, local market conditions, regulatory enforcement, and specifics of operating housing in a particular community under a particular HUD office.
- Interviews with local HUD staff, from both public and assisted housing. This will give insight into local HUD approaches to oversight and enforcement of regulations.
- Exit interview. At the exit interview, the research teams can share their observations, if developed, and also identify additional information for follow-up analysis. The research team should also obtain from the respective agencies their own estimates of the differences in costs and the source of those cost drivers.

C.5 Analysis and Observations

Following the site visits (one each to a small, medium, and large agency), and in preparation for a cross-site de-briefing, each team will prepare a summary of observations addressing the following:

Regulatory Environment

- How differently did the agencies approach or implement public housing's regulatory requirements?
- What is the magnitude of the regulatory differences in public and assisted housing?
- Which of these regulatory differences are the most material?

- How differently do operators of assisted housing and the studied PHAs implement similar regulations?
- Compared to assisted housing, does there appear to be a difference in enforcement of those regulations? Which regulations appear to be enforced less uniformly?
- Is there a different impact from these regulations based on agency size? Which regulations are more sensitive to agency size?
- How easily can the cost of regulatory differences be captured? What types of data are available to track and support observations? To what extent are costs quantifiable?

Operating Environment

- Which are the major cost drivers?
- How did those cost drivers differ from agency to agency, and from PHA to operator of assisted housing?
- To what extent are these cost drivers quantifiable?
- Was the research team able to establish a credible range of costs for these cost drivers?

Process

- Which additional data would the research team suggest be collected in future case studies that were not collected at the pilot sites? Which data are not necessary to collect?
- How easily were the agencies able to discuss, and quantify, cost drivers?
- What suggestions would the research teams have for the development of the eventual protocol for the remaining case study sites?
- Is it possible to separate cost impacts that are a result of regulatory differences from cost impacts that are a result of a PHA's local operating environment?
- What is the length of time required to conduct future case studies?

C.6 Guide to Research Questions

To assist the research teams, GSD has prepared a set of interview/research questions. The research teams should ask each of the agencies these questions, but should also follow lines of inquiry that, based on professional judgement, would be helpful in understanding the nature of the cost drivers and, importantly, how best to study these costs in future case studies.

Wherever possible, the research team shall attempt to identify if hard data exist to support conclusions or observations. Subject areas marked with an asterisk (*) represent areas of regulatory difference between public and assisted housing. The other areas of questioning relate either to a PHA's operating environment or to areas where the regulations are the same but where the enforcement or implementation may be different.

In cases where the agency also owns or manages other assisted housing, the research team should examine how regulations are implemented differently in these separate programs.

For each area, the research teams should attempt to determine if hard data exists on actual cost impacts. If hard data does not exist, the research teams should attempt to estimate the direct and

indirect cost impact. Alternately, the research teams should ask the agencies the following question: “If this regulation did not exist, would you lay off any staff, use fewer computers or less office space, or do something that you cannot currently do? If no, what is the opportunity cost of this regulation?” For example, if the subject agency has implemented the community service requirement through a contract with a social service agency, what is the amount of that contract?

Procurement*

- Describe the basic procurement procedures (e.g., thresholds, signature authority, use of central warehouse, etc).
- What local constraints, formal and informal, are placed on the agency?
- Is the agency under any special HUD corrective action order?
- What special state requirements are imposed on the agency?
- What purchasing authority is given to site managers? To the extent that this authority is different from assisted housing, why?

Community Service*

- How has the agency chosen to implement this requirement?
- How long has it been in effect?
- What is the estimated cost, e.g., staff time, materials and supplies, rented space, consulting fees, insurance, and other opportunity costs?
- Do the families report compliance themselves?
- Does the PHA report compliance to HUD?
- How closely does HUD monitor/enforce this mandate?

Pet Rule*

- How has the agency chosen to implement this requirement?
- How long has it been in effect?
- To what extent have residents responded to this rule?

Site-based Waiting Lists*

- Has the agency implemented site based waiting lists?
- If so, in what form? To what extent does a centralized list exist despite the adoption of site-based lists?
- What is the experience so far?

Section 3*

- How does the agency implement Section 3?
- What are its results?
- How does it track compliance?
- To what extent does HUD monitor compliance?

Resident Participation*

- What does the agency do in the area of resident participation?

Grievance Process*

- Please describe the process.
- How many grievance hearings are held monthly, quarterly, annually?
- What is the time requirement on the agency?
- Does the PHA have a separate legal entity set up to deal with grievances?

Eviction Process*

- Please describe the formal eviction process in the agency and the approach to lease enforcement.
- Does the agency use in-house counsel or outside counsel?
- What special requirements are imposed on the agency by state or local governments?
- What are the expectations of local courts? What is the impact?

Annual Plan*

- Please review the basic plan.
- Please describe the process of completing/submitting this plan.
- What is the approximate level of effort/cost to prepare the plan?
- To what extent are residents involved in the preparation?

Public Housing Assessment System (PHAS)*

- What has been the agency's experience with PHAS?
- What are the costs of implementing PHAS? Describe the nature and amount of those costs.
- What impact has PHAS had, formally and informally, on the agency and its organizational arrangements?

Deconcentration*

- How did the agency choose to implement the deconcentration rule?
- What are the fiscal implications of this requirement?

Cooperation with Welfare Agencies*

- Does the agency have a cooperation agreement with the local welfare agency?
- How is it implemented?

Income Disregards, Flat Rents, Minimum Rents, and Imputed Welfare Income*

- How are these provisions implemented?

Resident Programs

- What types of programs does the agency provide?
- How are they funded?
- What is the amount of funding from federal Operating Fund sources?

- Are these programs administered by the site manager, a separate operational unit, contracted out through community organizations, or administered through on-site management?
- To what extent do the local/state/federal agencies provide services to residents?

Family Self-Sufficiency

- Does the agency implement a FSS program? Is it required?
- If so, what is the size? How long has it been in place?
- What is the amount and source of funding?
- Does the PHA contract with anyone to help with this program? Explain.

Cooperation Agreement with Local Municipality

- Please describe the requirements of the local municipality under the Cooperation Agreement.
- Are the services in the Cooperation Agreement provided?
- Does the municipality waive the PILOT payment?
- Does local government provide the same services or standard of services that it provides to the community at large?

Private Management

- Does the agency have any units under private management?
- If so, for how long?
- Please describe the basic responsibilities of the agency/firm that manages the property.
- How are the contracts enforced/monitored?
- What is the level of performance?
- What is the amount of funding provided to each property and how were those amounts determined?
- What operating functions are not required of the private firms but are required of agency-managed properties?
- To what extent does the PHA still conduct operating functions centrally for privately managed properties?

Admissions and Preferences

- What are the agency's preferences for admissions?
- How long have they been in effect?
- What are the demographics of public housing?

Project Based Budgeting

- What is the extent of project based budgeting?
- In the absence of project based budgeting, which properties consume more and why do you think that?
- How long has project-based budgeting been used?

- What is the level of authority of site-based personnel? How much autonomy do they have regarding budgeting decisions for their property?
- What are the systems for allocating costs to properties that are not directly charged to the properties, such as overhead, central maintenance, etc.? What are the allocation systems used to allocate general overhead across programs?
- Are income/expense reports provided on a monthly basis for each property?
- Who receives/reviews these reports?
- How are these reports used?
- What is the total funding provided to each property?
- To what extent or what percentage of costs are not allocated to sites but incurred centrally?

Property Management Delivery System

- Do you consider this a centralized or decentralized management system?
- What are the basic organizational arrangements?
- Please review responsibility matrix.
- What is the reason for the agency's choice of organizational style?
- What are the different levels of operating services?

Security

- What types of security services are provided by the agency?
- How are these services funded? What is the amount of funding?
- What are the community expectations around security services?
- What types of security services does the locality provide?

Drug Elimination Grant

- Does the agency receive PHDEP funds?
- Where in the agency is this administered?
- How does the agency use its PHDEP funds?
- What would the agency do if this program was eliminated?

Property Characteristics

- Examining the property characteristics chart, please discuss the similarities and differences between the public housing and assisted housing stock in the subject community.
- Does the agency operate any distressed properties? How does the agency define distress?
- What unique operating constraints are imposed by these distressed properties?
- What are the extra costs associated with operating the distressed properties?

Capital Program

- Please briefly describe the physical needs of each property.
- Please review the capital plans for each property and provide a brief comment.

- To what extent does property condition and available capital funding affect the operating costs of the agency?
- Please describe the use of Capital Fund monies.

MIS System

- Briefly describe the type of automation system used by the agency.
- How does this system vary from what is used by other private operators?
- Which parts are mandated by HUD?

Mission

- What is the mission of the agency?
- How does that mission differ from other operators of assisted housing in the community?
- To what extent is this mission mandated by HUD or locally-driven?

Local Municipal Arrangements

- What is the relationship of the agency with the local municipal government?
- What types of services are provided to the agency that are not provided to other assisted operators and/or the local community?
- What services are not provided to the agency that are provided to other assisted operators and/or the local community?

Public Costs

- Do you think you incur costs specifically because you are a public agency, even in areas where the regulations are essentially identical?
- What are those costs?
- Are they quantifiable?

Additional Duties/Responsibilities

- What types of additional duties/responsibilities are expected of the housing authority? By HUD? By residents? By other local pressures?
- What is the level of effort?

MBE/WBE

- Does the agency have any formal MBE/WBE programs?
- How are they implemented?
- How are they monitored by HUD? By the agency?

Screening and Eviction for Drug Abuse and Other Criminal Activity (Formerly “One Strike”)

- How often does the PHA invoke this rule?
- What has been its affect?

Other Areas

- 504 regulations
- Energy
- Unit inspections
- Insurance
- Wage rates
- Designated housing
- RMCs, ROSS, ROBs
- Homeownership activities

Exhibit C.1: Sample Statement of Operating Receipts and Expenditures

HOMETOWN HOUSING AUTHORITY
 STATEMENT OF OPERATING RECEIPTS AND EXPENDITURES
 FISCAL YEAR ENDING DECEMBER 31, 2000

AEL:	\$250
AUEL:	\$75

ACCOUNT	Acct No.	Properties					Total	Central Property Services	Central Admin	Resident Programs	Total
		Birch	Williams	Wallace	S. Beech	Benton					
Units		100	150	200	250	300	1,000	1,000	1,000	1,000	1,000
INCOME											
Dwelling Rent	311000	\$120,000	\$180,000	\$240,000	\$300,000	\$360,000	\$1,200,000				\$1,200,000
Non-dwelling Rental	319000	\$0	\$0	\$0	\$0	\$0	\$0				\$0
Fraud Recovery	330001	\$600	\$900	\$1,200	\$1,500	\$11,800	\$16,000				\$16,000
Interest	361000	\$0	\$0	\$0	\$0	\$0	\$0				\$0
Other Income	369001	\$0	\$0	\$0	\$0	\$0	\$0				\$0
Vending Machine	369002	\$600	\$900	\$1,200	\$1,500	\$1,800	\$6,000				\$6,000
Telephone/Laundry	369003	\$0	\$0	\$1,500	\$0	\$0	\$1,500				\$1,500
Parking/Trash	369004	\$0	\$0	\$0	\$0	\$0	\$0				\$0
Maintenance Charges	369005	\$1,200	\$1,800	\$2,400	\$3,000	\$3,600	\$12,000				\$12,000
Late Charges	369006	\$1,200	\$800	\$2,400	\$3,000	\$3,600	\$11,000				\$11,000
Allocated Subsidy	802000	\$188,530	\$175,795	\$246,360	\$252,625	\$249,390	\$1,112,700	\$744,000	\$700,960	\$96,000	\$2,653,660
TOTAL INCOME		\$312,130	\$360,195	\$495,060	\$561,625	\$630,190	\$2,359,200	\$744,000	\$700,960	\$96,000	\$3,900,160
ADMINISTRATIVE EXPENSE											
Salaries	411000	\$25,000	\$37,500	\$50,000	\$62,500	\$75,000	\$250,000	\$150,000	\$400,000		\$800,000
Legal Costs	413000	\$1,500	\$2,250	\$3,000	\$3,750	\$4,500	\$15,000		\$0		\$15,000
Eviction Costs	419016	\$750	\$1,125	\$1,500	\$1,875	\$2,250	\$7,500		\$480		\$7,980
Staff Training	414000	\$100	\$150	\$200	\$250	\$300	\$1,000		\$0		\$1,000
Travel	415000	\$100	\$150	\$200	\$250	\$300	\$1,000		\$480		\$1,480
Memberships	416000	\$0	\$0	\$0	\$0	\$0	\$0		\$0		\$0
Accounting/Auditing	417000	\$0	\$0	\$0	\$0	\$0	\$0		\$0		\$0
Office Rent	418000	\$0	\$0	\$0	\$0	\$0	\$0		\$0		\$0
Miscellaneous Costs	419000	\$4,000	\$6,000	\$8,000	\$10,000	\$12,000	\$40,000	\$64,000	\$120,000		\$224,000
TOTAL ADMINISTRATIVE		\$31,450	\$47,175	\$62,900	\$78,625	\$94,350	\$314,500	\$214,000	\$520,960	\$0	\$1,049,460
RESIDENT SERVICES											
Salaries	421000	\$0	\$0	\$0	\$0	\$0	\$0		\$0	\$25,000	\$25,000
Recreation and Publications	422000	\$0	\$0	\$0	\$0	\$0	\$0		\$0	\$53,500	\$53,500
Contract Costs	423000	\$0	\$0	\$0	\$0	\$0	\$0		\$0	\$10,000	\$10,000
TOTAL RESIDENT SERVICES		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$88,500	\$88,500

Exhibit C.1: Sample Statement of Operating Receipts and Expenditures (continued)

HOMETOWN HOUSING AUTHORITY (continued)
 STATEMENT OF OPERATING RECEIPTS AND EXPENDITURES
 FISCAL YEAR ENDING DECEMBER 31, 2000

AEL:	\$250
AUEL:	\$75

ACCOUNT	Acct No.	Properties					Total	Central Property Services	Central Admin	Resident Programs	Total
		Birch	Williams	Wallace	S. Beech	Benton					
Units		100	150	200	250	300	1,000	1,000	1,000	1,000	1,000
UTILITIES EXPENSE											
Water and Sewer	431000	\$104,000	\$75,000	\$75,000	\$86,000	\$115,000	\$455,000		\$10,000		\$465,000
Electricity	432000	\$38,000	\$35,000	\$85,000	\$83,000	\$45,000	\$286,000		\$30,000		\$316,000
Natural Gas	433000	\$20,000	\$25,000	\$35,000	\$17,000	\$20,000	\$117,000				\$117,000
Fuel		\$0	\$0	\$0	\$0	\$0	\$0				\$0
TOTAL UTILITIES		\$162,000	\$135,000	\$195,000	\$186,000	\$180,000	\$858,000	\$0	\$40,000	\$0	\$898,000
MAINTENANCE EXPENSE											
Salaries	441000	\$50,000	\$75,000	\$100,000	\$125,000	\$150,000	\$500,000	\$250,000			\$750,000
Materials	442000	\$12,000	\$18,000	\$24,000	\$30,000	\$36,000	\$120,000	\$72,000			\$192,000
Contracts	443000	\$13,000	\$19,500	\$26,000	\$33,000	\$39,000	\$130,500	\$38,000			\$168,500
Other		\$0	\$0	\$0	\$0	\$0	\$0				\$0
TOTAL MAINTENANCE		\$75,000	\$112,500	\$150,000	\$188,000	\$225,000	\$750,500	\$360,000	\$0	\$0	\$1,110,500
GENERAL EXPENSE											
Insurance	451000	\$11,680	\$17,520	\$23,160	\$29,000	\$34,840	\$116,200		\$20,000		\$136,200
PILOT	452000	\$0	\$0	\$0	\$0	\$0	\$0				\$0
Terminal Leave Payments	453000	\$300	\$450	\$600	\$750	\$900	\$3,000				\$3,000
Employee Benefit Contribs	454000	\$22,500	\$33,750	\$45,000	\$56,250	\$67,500	\$225,000	\$120,000	\$120,000	\$7,500	\$472,500
Collection Losses	457000	\$1,200	\$1,800	\$2,400	\$3,000	\$3,600	\$12,000				\$12,000
Interest on Notes	458000						\$0				\$0
Other General Expenses	459000						\$0				\$0
TOTAL GENERAL EXPENSES		\$35,680	\$53,520	\$71,160	\$89,000	\$106,840	\$356,200	\$120,000	\$140,000	\$7,500	\$623,700
EXTRAORDINARY EXPENSES											
Non-expendable equipment	754053	\$5,000	\$7,500	\$10,000	\$12,500	\$15,000	\$50,000		\$0		\$50,000
Replacement of Equipment	752000	\$3,000	\$4,500	\$6,000	\$7,500	\$9,000	\$30,000	\$50,000	\$0		\$80,000
TOTAL EXTRAORDINARY EXPENSES		\$8,000	\$12,000	\$16,000	\$20,000	\$24,000	\$80,000	\$50,000	\$0	\$0	\$130,000
TOTAL OPERATING EXPENSE		\$312,130	\$360,195	\$495,060	\$561,625	\$630,190	\$2,359,200	\$744,000	\$700,960	\$96,000	\$3,900,160
Surplus/(Deficit)		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
PUM		\$260	\$200	\$206	\$187	\$175	\$197	\$62	\$58	\$8	\$325
PUM, Less Utilities		\$125	\$125	\$125	\$125	\$125	\$125	\$62	\$55	\$8	\$250

Appendix D

Comparison of Federal Rules and Regulations in Operating Public and Assisted Housing

(Draft)
**Comparison of Federal Rules and Regulations in Operating
 Public and Assisted Housing**

The chart below is organized into four sections:

- I. *Areas of Similarity,*
- II. *Areas of Differences Affecting Costs for Public Housing,*
- III. *Areas of Differences That Could Affect Costs, but are Voluntary for the PHA to Implement, and*
- IV. *Areas of Differences Affecting Costs for Assisted Housing.*

This chart includes rules/regulations that govern the Operating program only. It does not include rules/regulations affecting the Capital Fund, Development, Drug Elimination, Section 8 Housing Choice Vouchers, and various special grant programs. Furthermore, it does not include or address issues of difference in enforcement or interpretation.

I. Areas of Similarity			
Item	Reference		Comment
	Public Housing	Assisted Housing	
504 Regulations	24 CFR Part 8	24 CFR Part 8	There is no difference in regulations with respect to 504 for public or assisted housing.
Admission of non-citizens	24 CFR Part 5.500 Subpart E- Restrictions on Assistance to Noncitizens	24 CFR Part 5.500 Subpart E- Restrictions on Assistance to Noncitizens	Same rules. Only U.S. citizens or those with a signed declaration of eligible immigration status may receive financial assistance or be admitted to HUD subsidized housing.
Annual and Interim Reexaminations	24 CFR Part 5.617 24 CFR Part 960.209- Reexamination of family income and composition 24 CFR Part 960.257	24 CFR Part 5.617	Both public and assisted housing are required to conduct annual reexaminations of tenant incomes and to process interim reexaminations whenever tenant incomes/circumstances change necessitating a decrease in tenant rent. In assisted housing, an “interim” must be conducted once family income increases by more than \$40 monthly. In public housing, interim reexaminations are not required when incomes increase, but are allowed according to the particular PHA’s policies. If a flat rent is elected by the tenant, the PHA has the option to reexamine income as infrequently as every 3 years. Interim reviews can be conducted at family’s request, but the PHA does not have to adjust rent due to findings in the review (for assisted housing, rent MUST be adjusted).
Annual Family Income	24 CFR Part 5.609- Annual Income Draft Notice 10/9/97 (Areas where pub. and assist. hsg. differ)	24 CFR Part 5.609- Annual Income Draft Notice 10/9/97 (Areas where pub. and assist. hsg. differ)	Definition of Annual Income is the same in public and assisted housing. The regs are identical, but there are about a dozen items that are interpreted differently which are laid out in the 10/9/97 Draft Notice from HUD. However, it is not believed that these differences affect cost.
Eligibility Rules	24 CFR Part 960.202	24 CFR Part 5.605 24 CFR Part 5.653	Basic eligibility rules are the same in public and assisted housing.

I. Areas of Similarity (continued)			
Item	Reference		Comment
	Public Housing	Assisted Housing	
Energy	24 CFR Part 965 Subpart C Energy Audits and Energy Conservation Measures		Both public and assisted housing are required to operate economically with respect to utilities. Owners of assisted housing are required to conduct annual energy reviews; PHAs are required to complete energy reviews every five years for each public housing project.
Evictions	24 CFR Part 966.4 Lease Requirements Notice PIH 2001-8 (HA)		For failure to pay rent, public housing must provide a 14-day notice of failure to pay rent; assisted housing has to give a 10 day notice for which to discuss the proposed termination of the lease with the owner. Otherwise, eviction rules are the same. See <i>Grievances and Screening and Eviction for Drug Abuse and Other Criminal Activity</i> sections of this document for more information.
Federal Preferences	Previously found in 24 CFR Part 5.415, 5.420, 5.425, 5.430	Previously found in 24 CFR Part 5.415, 5.420, 5.425, 5.430	For several years, federal preferences for admissions were suspended under annual appropriations acts. QHWRA formally eliminated federal preferences for both public and assisted housing.
Income targeting/Income Limits for Admission	Sec. 16 of the 1937 United States Housing Act QHWRA Sec. 513(a) 24 CFR Part 5.607- Income Limits for Admission 24 CFR Part 960.202(b)	QHWRA Sec. 513(c) 24 CFR Part 5.607- Income Limits for Admission 24 CFR Part 5.653- Section 8 project-based assistance programs: Admission—Income- eligibility and income-targeting	In both public and assisted housing, no less than 40% of admissions must be below 30% of median income. However, assisted housing must still limit admissions to not more than 25% lower income (as opposed to very low income) in projects opened on or after 10/1/81 and 15% for projects opened before 10/1/81 (this provision was repealed for public housing in 1998). This does not appear, though, to have a material cost impact.
Insurance Requirements	24 CFR Part 965 Subpart B, and Annual Contributions Contract	24 CFR Part 207.260(c) Handbook 4350.4, Section 2-16 Handbook 4350.1, Chapter 21 Mortgage Letters 83-24 and 86-8	Public housing is required to maintain specified insurance coverage for property and casualty losses that would jeopardize the financial stability of the PHA. If a PHA undertakes lead-based paint activities, it must assure that it has reasonable insurance coverage for itself for potential personal injury liability associated with those activities. For assisted housing, mortgagors must carry fire and extended coverage insurance in an amount that meets the coinsurance requirements of the insurer and is at least equal to 80 percent of the actual cash value of the project's insurable improvements and equipment. To determine the amount of insurance required at project completion, mortgagees must use the estimate of insurable value shown on form HUD-92329, Property Insurance Schedule.
Lease	Sec. 6(l) of the 1937 United States Housing Act 24 CFR Part 966.4 Subpart A	Handbook 4350.3	The lease is essentially the same in public and assisted housing. Lease is 12-month term, automatically renews. Both are leases in "perpetuity", however, with the QHWRA mandate for Community Service requirement, PHA must see if tenant is in compliance with Comm. Serv. requirement before they can renew their lease.
Maintenance			Other than the broad statutory and regulatory language requiring both public and assisted housing to maintain their housing in good condition, there are no specific requirements regarding maintenance practices.

I. Areas of Similarity (continued)			
Item	Reference		Comment
	Public Housing	Assisted Housing	
MBE/WBE	HUD Handbook 7460.8, REV 1, Procurement Handbook, Section 9-4, (B) and (C)	HUD Handbook 4381.5, REV 2- Management Agent’s Handbook, Chapter 5, paragraph 5.3	There is no special requirement regarding MBE/WBE in assisted or public housing. Only encouraged by HUD, not required.
Minimum rent	Sec. 3(a) of the 1937 United States Housing Act QHWRA Sec. 507 24 CFR Part 5.630 (Final Rule is 65 FR 16692)	Sec. 3(a) of the 1937 United States Housing Act QHWRA Sec. 507 24 CFR Part 5.630 (Final Rule is 65 FR 16692)	Both public and assisted housing must impose minimum rents; however, in assisted housing it’s \$25 and in public housing it is \$0- \$50.
MTCS/TRACS (electronic reporting of household information)	form HUD-50058 (draft)	form HUD-50059 form HUD-50059-D form HUD-50059-F form HUD-50059-G	Both public and assisted housing must electronically submit household information. Public housing submits through MTCS, assisted housing through TRACS. Currently (as of 6/6/01) MTCS is being transferred into the PIC computer system. The current form HUD-50058 is still in draft form.
Screening and Eviction for Drug Abuse and Other Criminal Activity (formerly known as “One Strike”)	1996 Hsg Program Extension Act- Sec. 9- Safety and Security in Public Housing QHWRA 24 CFR Parts 5 et al. 5/24/01 Notice PIH 2001-8(HA)	1996 Hsg Program Extension Act- Sec. 9- Safety and Security in Public Housing QHWRA 24 CFR Parts 5 et al. 5/24/01	Applies to both public and assisted housing, affecting admissions and lease terminations. The rule enables PHAs to deny admission and terminate tenancy on the basis of specific criminal activity, and provides a mechanism for PHAs to obtain access to criminal records. The new final rule may create some difference in implementation, including crime data collection and lease and grievance procedures. (PHAs within the jurisdiction of the United States Court of Appeals for the Ninth Circuit can only evict tenants if there is proof that the leaseholder is at fault; evictions cannot be carried out if guests of the tenants are at fault. Except in the Ninth Circuit court region for public housing, in all other public and assisted housing, the tenants are held responsible for actions of guests, and can be evicted because of those guest’s actions.)
Security/Safety	24 CFR Part 5, Subpart G 24 CFR Part 902	24 CFR Part 5, Subpart G	There are no specific requirements regarding security in either public or assisted housing, although HQS inspections require security related repairs (e.g.. locks for doors and windows). Uniform Physical Condition Standards inspections for both public and assisted housing cover locks, fences, gates and lighting.

I. Areas of Similarity <i>(continued)</i>			
Item	Reference		Comment
	Public Housing	Assisted Housing	
Uniform Physical Condition Standards	24 CFR Part 5 Subpart G Uniform Physical Condition Standards 24 CFR Part 5.705 (2000) 24 CFR 902, et seq 24 CFR Part 965.601	24 CFR Part 5 Subpart G Uniform Physical Condition Standards 24 CFR Part 5.705 (2000)	Physical condition standards address: the site; the building exterior; the building systems; the dwelling units; the common areas; and health and safety considerations. REAC uniform inspections are conducted using the same protocol for public and assisted housing. Both have every property inspected, with a random sampling of units. However, there is a difference in frequency. Assisted housing that has a score of 90 and above is inspected every 3 years, 80-89 every 2 years, and below 80 every year. PHAS is still undergoing revisions, including frequency of inspections for high performers, all PHAS scores are currently advisory. This item still needs further clarification.
Unit Inspections	Sec. 6(f)(3) of the 1937 United States Housing Act 24 CFR 902, Subpart B	Handbook 4350.3, Chapter 4, Section 4 Unit Inspections Handbook 4350.3, Appendix 21 Uniform Inspection Report	Sec. 6(f)(3) of the 1937 United States Housing Act requires public housing to do annual unit inspections. Handbook 4350.3 requires move-in and move-out inspections for assisted housing, but not annual inspections; however, most state Housing Finance Agencies (HFAs), as well as the Rural Housing Service, require annual unit inspections. Also, it's generally good practice for owners to conduct annual unit inspections.

II. Areas of Differences Affecting Costs for Public Housing		
Item	Reference	Comment
Annual Plan	<p>Sec. 5A. of the 1937 United States Housing Act</p> <p>QHWRA Sec 511</p> <p>24 CFR Part 903</p> <p>PIH Notice 2000-43(HA) September 18, 2000 to September 30, 2001</p> <p>PIH Notice 2000-4(HA) January 19, 2001-January 31, 2002</p>	<p>Only public housing is required to implement this requirement.</p> <p>At risk and troubled agencies may have to submit more information. HUD may establish a streamlined plan for high performing PHAs, those with fewer than 250 public housing units, and those that only administer tenant-based assistance.</p> <p>Small PHAs may submit a streamlined plan called a Small PHA Plan Update that is a brief statement of upcoming grant activities and changes in policies from previous year. Includes items on the submission checklist, and form can be in HUD provided template, narrative, or edited version of previous. RABs and public still comment. Small PHAs don't have to certify that Update is consistent with jurisdiction's Consolidated Plan.</p>
Community service	<p>QHWRA Sec 512</p> <p>24 CFR Part 960 Subpart F</p>	<p>PHAs are required to assure that unemployed adults are engaged in 8 hours per month of either community service and/or are participating in an economic self sufficiency program, if not otherwise participating in TANF programs. This requirement excludes elderly, disabled residents, working residents, and those in another self-sufficiency program.</p> <p>Community service activities are administered directly by the PHA, or a contractor, partnership, etc. This requirement is phased in by fiscal year, and/or when the resident is reexamined. PHAs must determine eligibility of tenants for participation (approximately 15% of families in public housing nationwide will be eligible), give tenant a written description of obligation to participate, review compliance (tenant needs 3rd party verification for exemption or participation), retain documentation, and draft notice of noncompliance if needed. In the noncompliance notice, PHA cites the termination of the 12-month lease (when the lease otherwise would have been renewed); resident can submit grievance, take judicial action; or, can make up hours.</p> <p>HUD has given PHAs latitude in implementing this requirement. Essentially, compliance is self-reported by the PHA to HUD. The impact of this reg may depend on how a PHA defines their policy (could either run it themselves, do a cooperation agreement, or let the tenant comply on own).</p>
Cooperation with Welfare Agencies	<p>QHWRA Sec. 512(d)(7)</p> <p>24 CFR Part 5.613 (Final Rule- 65 FR 16692)</p>	<p>Not widely implemented.</p> <p>PHAs have a responsibility for making best efforts for establishing cooperation agreements.</p> <p>Assisted housing often has informal dealings with welfare agencies because tenant income is based on welfare assistance.</p> <p>This agreement may be just good business practice.</p>

II. Areas of Differences Affecting Costs for Public Housing (continued)		
Item	Reference	Comment
Deconcentration	24 CFR Part 903 Subpart A 12/22/00	<p>Compliance is not intended to impair or adversely affect a PHA's implementation of other statutory provisions such as local preferences or site-based waiting lists.</p> <p>PHAs must implement rules for deconcentrating low-income properties.</p> <p>PHAs must:</p> <ol style="list-style-type: none"> 1)determine avg. income of families in all developments; 2)determine avg. income of families in each dev.; 3)determine which developments are outside the Established Income Range (between 85 to 115% of PHA-wide avg.); 4)option to provide reasons why outside range and not comply w/ deconcentration; 5)create strategy for implementing decon. policy (including providing incentives for families to move to higher/lower developments, investment and capital in dev. with lower incomes, preferences of working families, and skip tenants on list). <p>Exemptions include: PHAs with fewer than 100 units; elderly and/or disabled properties; properties approved for demo/section 8 conversion; mixed finance/HOPE VI dev. b/4 this reg.</p>
Designated Housing	<p>Sec. 7 of the 1937 US Housing Act</p> <p>24 CFR Part 945 Subpart C (these regs are no longer being used, instead, refer to HUD Notice 97-12)</p>	<p>PHAs may designate public housing properties for elderly families, or for disabled families, or for elderly and disabled families in the same property. A PHA wanting to designate properties for elderly families or for disabled families has to develop a Plan. Under some circumstances, a PHA may choose to develop a Plan to designate a property formally for elderly and disabled families (a mixed population project). However, the plan is not required in the case of mixed population properties. In 1997, it was estimated that each year, there would be approximately 176 PHAs applying for designation. HUD also estimated that the development of the Plan should take an average of 21 hours, and that most of the information a PHA would need to develop its Plan was gathered as a part of the PHA's day-to-day operation.</p>
Grievances	24 CFR Part 966 Subpart B	<p>PHAs must provide formal grievances whereas owners of assisted housing must only notify tenants that they have ten days to discuss the proposed termination with the owner. Grievance is any dispute that a tenant has with a PHA involving the lease, or PHA regs which adversely affect tenants' rights, duties, welfare or status. Grievance procedures apply both to a PHA's actions and a PHA's failure to act.</p> <p>Procedure:</p> <ol style="list-style-type: none"> 1) Resident presents grievance to PHA in writing to see if can settle informally w/out a hearing; 2) if not settled informally, written request by resident for a hearing presided by hearing officer or hearing panel chosen by all parties; 3) decision by hearing is binding, unless PHA Commissioners say not; 4) but, this decision shall not constitute a waiver of the rights of the complainant to a trial de novo or judicial review in any judicial proceedings. <p>Some PHAs only have attorneys handle grievances, but this is a local choice, and the regs do not require a semi-judicious process.</p>

II. Areas of Differences Affecting Costs for Public Housing (continued)		
Item	Reference	Comment
Income disregards, Imputed Welfare Income, and Flat Rents	<p>QHWRA Sec 508</p> <p>24 CFR Part 5.611</p> <p>24 CFR Part 960.255</p> <p>24 CFR 960.253 (b)</p> <p>Sec. 12(d) of the 1937 United States Housing Act</p> <p>24 CFR Part 5.615</p>	<p>PHAs must exclude income from individual enrolled in official employment and training programs and must also provide a 12-month disregard (PHAs may also exclude other earned income, at their option, but without corresponding increase to subsidy). Mandatory deductions include \$480 for each dependent; \$400 for elderly or disabled family; the sum of the following, to the extent the sum exceeds three percent of annual income: unreimbursed medical expenses of any elderly or disabled family; unreimbursed reasonable attendant care and auxiliary apparatus expenses for each member of the family who is a person with disabilities...; and any reasonable childcare expenses necessary to enable a member of the family to be employed or to further his or her education. For public housing only: Permissive deductions, and any deduction PHA deems appropriate in a written policy.</p> <p>A person is eligible only if they have been unemployed for the last 12 months, has received welfare in last 6 months, or has been in training. For first 12 months, get full income disregard, for next 6 months disregard 50%. The PHA can offer the 12-month disregard or an Individual Savings Account, from which the family chooses.</p> <p>With respect to imputed welfare income, PHAs are required to impute income from families on welfare when not participating. If tenants do not comply with welfare policies, and therefore receive a decrease in benefits (sanction), the PHA will not respond with a decrease in monthly rent until it receives official notice from the welfare office. There are two instances where the PHA will not reduce the family's rent: if the family's benefits are reduced because the welfare agency verifies that a family member has committed welfare fraud; or because the family is being sanctioned for noncompliance with a requirement to participate in an economic self-sufficiency program.</p> <p>With respect to flat rents, every PHA has to establish a flat rent structure (what market value of the unit would be). PHAs have 3 years from the date of reg to implement. Every family will be offered a choice of paying the income-based rent or flat rent. PHAs have the option to recertify the incomes of families that choose flat rents as infrequently as every 3 years (although they may continue to reexamine annually). PHAs that had ceiling rents authorized and established before October 1, 1999, may use them in lieu of flat rents until October 1, 2002. However, certain requirements apply. Annual reexaminations must continue until the PHA shifts to true market-based flat rents.</p>
Pet Rules	<p>Sec. 31 of the 1937 United States Housing Act</p> <p>QHWRA Sec. 526</p> <p>24 CFR Part 5 Subpart C (this addresses only Elderly and Disabled pet rules?)</p>	<p>Both public and assisted housing have been required since the 1980s to admit pets in elderly housing. QHWRA required that public housing admit pets in family housing; however, implementing regulations allow PHAs to limit the type and size of pets and to impose pet deposits and other reasonable rules.</p>

II. Areas of Differences Affecting Costs for Public Housing (continued)		
Item	Reference	Comment
Procurement	<p>24 CFR Part 85.36</p> <p>Assisted Housing: HUD Handbook 4381.5, REV 2- Management Agent’s Handbook, paragraph 6.50</p> <p>Assisted Housing: HUD Notice: 99-13 issued 5/17/99</p>	<p>PHAS are bound by 24 CFR Part 85.36, wherein formal bidding (sealed bidding, RFPs, or RFQs) is required for all work over \$100,000. If an assisted housing owner is using the replacement reserve, three bids are required for work over \$10,000 or thresholds set by HUD office. For ongoing supply or service contracts estimated to cost less than \$5,000 per year, agent should solicit verbal or written cost estimates. HUD Notice 99-13 covers pre-work approval for reserve for replacement releases (one example is 1-15 units \$10,000 or more, 16-100 units \$25,000 or more, 101-250 units \$50,000 or more, 251 and above \$100,000).</p> <p>The small purchase threshold is not an issue for smaller and medium-sized PHAs, which procure few if any contracts in the operating budget of over \$100,000.</p>
Public Housing Assessment System (PHAS)/REAC	<p>24 CFR Part 5 Subpart G Physical Condition Standards and Inspection Requirements Subpart H Uniform Financial Reporting Standards</p> <p>24 CFR Part 902 Public Housing Assessment System</p> <p>PHAS website on HUD intranet (internal HUD website)</p>	<p>While the inspection system is the same for both programs, public housing must submit “management indicators” and consolidated year-end financial statements. They are also subject to a resident survey. However, field office staff in multifamily housing perform periodic reviews of management of assisted properties. Furthermore, certain contract administrators are required to review management activity of assisted properties.</p> <p>Assisted housing has implemented a resident survey, but will have different scoring mechanism, and used more as a management tool.</p> <p>PHAS is still undergoing revisions; all scores are currently advisory.</p>
Section 3	<p>24 CFR Part 135</p> <p>Handbook 8023.01</p> <p>Notice- FR 4651N-01 Proposed Info. Collection, Comment Request, Economic Opportunities for Low- and Very Low-Income Persons, January 18, 2001</p> <p>Section 3 Brochure</p> <p>Form-HUD 60002</p>	<p>Section 3 requires PHAs to reach goals with respect to hiring/training opportunities for “Section 3 residents” and business opportunities for Section 3 business concerns.</p> <p>Every PHA is required to write a Section 3 strategy, and for those implementing the program, an annual report is required. Have to submit form HUD-60002. However, for a few years, system has been down, and submission of form decreased b/c PHAs had to submit manually. HUD’s Office of FHEO conducts compliance reviews and reviews complaints.</p> <p><i>Note: There are different opinions of HUD staff whether this applies to both public and assisted housing, but the FHEO is only enforcing Section 3 for public housing. Some say it is not a requirement for assisted housing, but only encouraged.</i></p>

II. Areas of Differences Affecting Costs for Public Housing (continued)		
Item	Reference	Comment
Tenant Participation and Resident Consultation	<p>Sec. 5A (e) of the 1937 United States Housing Act</p> <p>QHWRA Sec. 505(b)</p> <p>QHWRA Sec. 511</p> <p>24 CFR Part 245 (for assisted housing)</p> <p>24 CFR Part 903.13</p> <p>24 CFR Part 964</p> <p>24 CFR Part 990.108(e)</p> <p>Notice PIH 00-36 8/21/00</p> <p>Notice PIH 01-3 1/18/2001</p>	<p>Assisted has no formal requirement for resident participation in management. However, assisted housing regulations require owners to give “notice” to residents of certain major changes (rent increases, conversion of utilities, capital improvements, etc.). Owners of assisted housing must also not “impede” reasonable efforts of tenants to organize or unreasonably withhold meeting space.</p> <p>In contrast, PHAs must provide notice to residents under the following circumstances:</p> <ul style="list-style-type: none"> • Change in rent, lease, grievance rules • Drafting of PHA Plan • Deciding upon the usage of the \$25 Resident Participation funding • If PHAs/ Tenant/ Community groups apply for ROSS, required to consult and MOU <p>Public housing requires one resident on the board, unless the PHA has less than 300 units and residents do not express an interest in serving. The Neg-Reg Committee recommended that each PHA receive \$25 per occupied unit annually for resident participation (PIH Notice 2001-3). PHAs must provide this funding regardless of financial status, and determine use of the \$25 between the PHA and Community Wide Resident Organizations (CWROs). If no CWROs exist, then the PHA decides with the Resident Council. If no Resident Council exists, then the Resident Advisory Board participates in the PHA plan process.</p>
Wage rates	<p>Sec. 12 of the 1937 United States Housing Act has Davis Bacon</p> <p>Sec. 9(d) of the 1937 United States Housing Act has Capital Fund provisions</p> <p>24 CFR Part 968.110(f) -Technical wage rates</p> <p>24 CFR Part 968.110(e)- Wage rates (Davis Bacon and HUD Determined)</p>	<p>PHAs are required to pay prevailing wage rates for maintenance staff, architects and draftsmen. Additionally, PHAs must make sure that HUD-determined wages are paid for maintenance service contracts and non-routine work.</p> <p>Davis Bacon (as opposed to HUD-determined wage rates) only applies to modernization work or construction contracts over \$2000 regardless of source of funding.</p>
Waiting lists	<p>Sec. 6(r) of the 1937 United States Housing Act</p> <p>24 CFR Part 903.7 (waiting lists discussed in Annual Plan reg)</p> <p>24 CFR Part 960.206- Waiting List: Local preferences in admission to public housing program.</p>	<p>PHAs are no longer required to operate central waiting lists, which are presumed to be more costly to administer. However, few PHAs have actually adopted site-based waiting lists, and HUD has not provided guidance for this new legislative flexibility. Even if they adopt site-based waiting lists, PHAs are still bound by HUD requirements concerning income targeting, deconcentration and income-mixing, and selection preferences for developments designated exclusively for elderly, disabled, or mixed population.</p> <p>When PHAs do operate a central waiting list, there are very specific requirements rooted in Title VI of the Civil Rights Act of 1964, implementing regulations are 24 CFR Part 1, and still-effective provisions in Handbook 7465.1 REV-2.</p> <p>Assisted housing waiting lists have always been project based.</p>

III. Areas of Differences That Could Affect Costs, but are Voluntary for the PHA to Implement		
Item	Reference	Comment
Contracting with resident owned businesses	24 CFR Part 963 Subpart B	PHAs are encouraged but not required to contract with ROBs. There is no funding for this reg, but because voluntary, not a cost impact. This reg was written to emphasize/extend the Section 3 reg.
Family Self-Sufficiency	Sec. 23 of the 1937 United States Housing Act National Affordable Housing Act, 1990- Sec. 554 QHWRA- Sec. 509. Fact sheet: Family Self-Sufficiency Program (FSS) March 2001	For most PHAs, FSS is a voluntary program. PHAs have been permitted to receive “add-on” funding for an FSS coordinator, but this is not required. PHAs have been required to operate FSS programs for each “incremental” public housing unit built since 1993 or for PHAs that received “incentive” development awards in the early 1990s (agreeing to operate FSS as a condition of receiving development funds). Any PHA that received funding from 1993-1998 had a mandate to conduct the FSS program for the same number of units it built (not necessarily for THOSE units, but the same number of units). According to HUD, the following number of public housing units were reserved using public housing development funds (either acquired or new construction, but mostly new construction): 1993- 3548, 1994-4462, 1995- 1475. Collectively, this is less than one percent of the entire public housing inventory. Participating families have an earned income disregard once begin working (they still pay the same amount of rent, just that a portion goes to the escrow account). Excess funds go into an escrow account to save for down payment on home, education expenses, etc for the tenant. QHWRA stipulates that there will be a one for one reduction in the program for each post 1998-graduate.
Public Housing Homeownership	QHWRA Sec. 536 24 CFR Part 906- Sec. 5(h) Homeownership Program	Voluntary; should not affect costs. A PHA may sell all or a portion of a public housing development to eligible residents for purposes of homeownership, according to a homeownership plan approved by HUD.
Resident Management Corporations (RMCs)	QHWRA Sec. 532 24 CFR Part 964.120	In public housing, residents can ask to form RMCs; there is no similar permission in assisted housing. However, a PHA is not required to honor a request to establish an RMC, unless project is troubled. It is also HUD’s policy to encourage resident management of public housing. RMCs are set up as nonprofits to do economic development in the public housing community.
Resident Opportunities and Self Sufficiency Program (ROSS)	Sec. 34 1937 of the United States Housing Act QHWRA Sec. 538 NOFA 12/20/00 NOFA 2/26/01 Fact Sheet: Resident Opportunities and Self Sufficiency Program (ROSS) September 1999	Grant, therefore voluntary. Links public housing residents with supportive services, resident empowerment activities and assistance in becoming economically self-sufficient. Combined previous Tenant Opportunities Program (TOP), Economic Development & Supportive Services (EDSS), and Public Housing Service Coordinator. There are four competitive grant programs: Resident Mgt. And Business Development, Capacity Building and Conflict Res., Resident Services Delivery Models, Elderly and Disabled Service Coordinators.

VI. Areas of Differences Affecting Costs of Assisted Housing		
Item	Reference	Comment
Audit Requirements	HUD Handbook 4381.5, REV 2- Management Agent’s Handbook	Assisted owners must provide audits, which include property level financial data; public housing must only provide an audit on the entire agency. The assisted housing audits have become more detailed, and cost about \$5,000 per property.
Financial Reporting	HUD Handbook 4381.5, REV 2- Management Agent’s Handbook	Assisted operators must account for costs on a project-by-project basis
Rent Increases	HUD Handbook 4381.5, REV 2- Management Agent’s Handbook	Owners of assisted housing must submit justification for rent increases. However, no rent increases after Mark to Market program, only slight annual adjustment. This has been an issue with covering costs. Review class action lawsuit for details.
Subsidy transference	HUD Handbook 4381.5, REV 2- Management Agent’s Handbook	PHAs are set up on automatic payment schedules whereas, in assisted housing, the owner must submit a monthly voucher for housing assistance payments.