INDIAN HOUSING OPERATING COST STUDY





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I. Executive Summary

Study Background

The Indian Housing Operating Cost (IHOC) Study was commissioned to investigate the costs of operating 1937 Act housing programs in Indian Country and Alaska. The study follows discussion of the Allowable Expense Level (AEL) factor during negotiated rulemaking sessions reviewing the Indian Housing Block Grant (IHBG) formula in 2003 and 2004. While some committee members expressed that use of the AEL was generally acceptable, others stated their belief that continued use of the AEL was not appropriate because it was "not reflective of the true costs of operating affordable housing units" and "that individual AEL calculations were often inaccurately calculated."[1] No consensus was reached on the use of AEL in the formula, but during the course of the discussions, the Department of Housing and Urban Development (HUD) indicated its intention to conduct a study on the use of the AEL in the IHBG formula allocation.

One key focus of the study was to develop an understanding of the availability and nature of specific measures of the operating costs of Low Rent (LR) and Mutual Help (MH) units, based on actual cost data gathered from tribes and tribally designated housing entities (TDHEs). Another was to examine possible data sources and approaches on which to base the allocation of Formula Current Assisted Stock (FCAS) funds. The operating cost information gathered from tribes was considered for possible use as a local area cost adjustment factor to distribute IHBG FCAS funds. In addition, the study evaluated other data sources for their possible use as a local area cost adjustment factor.

Findings

Formula considerations

The Native American Housing Assistance and Self-Determination Act of 1996 (NAHASDA) states in 25 USC 4133:

> Each recipient who owns or operates (or is responsible for funding any entity that owns or operates) housing developed or operated pursuant to a contract between the Secretary and an Indian housing authority pursuant to the United States Housing Act of 1937 [42 U.S.C. 1437 et seq.] shall, using amounts of any grants received under this chapter, reserve and use for operating assistance under section 4132(1) of this title such amounts as may be necessary to provide for the continued maintenance and efficient operation of such housing. IHBG recipients with 1937 Act units shall use for operating assistance "such amounts as may be necessary to provide for the continued maintenance and efficient operation of such housing."

[1] Summary information taken from description presented in "NAHASDA Revisions to the Indian Housing Block Grant Formula, Final Rule." *Federal Register* 72:76 (April 20, 2007) p. 20022.

The regulations present specific variables and equations to be used in the formula. They specify the allocation of FCAS funds based on per unit amounts, then the distribution of remaining available funds on the basis of need variables.

The regulations specify that funding be adjusted using local area cost adjustments. For operating costs, this is based on the national average AEL and the national average Fair Market Rent (FMR). For modernization costs, this is based on the Total Development Cost (TDC) adjustment.

The method of assigning an AEL to a tribe varied depending on the type and timing of housing development. Before 1975, tribes would use their actual operating costs as AEL if eligible (i.e., within the range of operating cost estimated by the AEL equation). After that, a tribe's AEL was selected from a Public Housing Agency (PHA) or Indian Housing Authority (IHA) that was deemed comparable.

Some tribes do not have an AEL. Tribes that never operated Low Rental Income Assistance Program or LR units may not have an AEL, in addition to tribes that developed their first LR units after NAHASDA was implemented. Tribes may also lack an AEL if their units used to be operated by an umbrella IHA but no longer are.

These historical quirks mean that comparable neighboring tribes may have very different AELs, or one may lack an AEL while its neighbor has one. In some cases, neighboring tribes with comparable housing units may receive vastly different per unit funding.

The location indices used in the IHBG formula—AEL, FMR, and TDC—use data that were developed for other purposes, and provide an efficient way to adjust the formula funding. Like any indicator or measure, they do not perfectly reflect the intended purpose.

See Chapters III and IV, for further discussion of formula and formula indices.

Indian Housing Operating Cost Data

Current reporting requirements and structures, including the Annual Performance Report (APR), do not include annual operating costs for 1937 Act units, because some operating cost categories on the APR include expenses for other programs as well. In addition, the APR does not include the collection of annual operating costs by program. Program costs must be considered in developing a cost-based local area adjustment factor because funding and spending levels on Mutual Help Homeownership Opportunity Program or MH and LR units reflect different program requirements.

In the absence of required reports on detailed annual expenditures, tribes/TDHEs use a variety of accounting systems and financial report formats to meet their internal accounting needs.

Operating costs are rarely tracked by project, making project-based accounting or funding allocations unworkable.

Existing data are not easily usable as a cost adjustment factor because of problems with data availability. In this study and under current regulation, the number of actual Indian housing operating cost data sets is limited by the voluntary basis of the cost study and by data incompatibilities that limit standardization and comparability.

Actual Indian housing operating costs reflect location factors, but also reflect other situational factors and policy factors. Thus, if the local area cost adjustment factor is intended to be a pure location factor, reported Indian housing operating costs are not suitable as a basis for local area cost adjustment.

However, reported costs may be suitable as a local area cost adjustment factor to achieve policy, if the goals of cost adjustment based on actual levels of spending on 1937 Act units are to represent local policy and situation, as well as reflecting location-based differences in cost.

Average operating cost for LR units in the study is $7,818, excluding modernization costs. The Alaska region reports the highest average cost. While the administration and maintenance cost categories are shared by all tribes, some cost categories figure minimally if at all for some tribes, but are a major cost for others. Examples include utilities, for which some tribes pay for residents and some do not, protective services, which are not provided by all tribes, and tenant services.

Average operating cost for MH units in the study is $3,687, again excluding modernization costs included. MH operating costs show much more variation than do LR costs. This is attributed to the MH program's smaller set of operating requirements, which allows greater discretion to spending levels based on tribe policies and priorities.

See Chapter V and VI, for further discussion of operating costs and collection of data on operating costs.

Alternative Data Sources

USDA 515 data are an appropriate alternative data source and provide a more consistent location factor than actual reported Indian housing operating costs, because this program does not incorporate the same spending flexibility as IHBG. The 515 units are located in rural areas, as are most 1937 Act units.

For this study, an adjustment factor based on 515 data is generated by using average cost from 515 projects located in a tribe's formula area counties. If a tribe's counties do not have four or more 515 projects, data from projects located in adjacent counties is used. Using this approach, all tribes have data with good geographic fit and sufficient data coverage.

Replacing the AEL factor with this 515 factor would narrow the range of cost adjustment, increasing the funding for some tribes and decreasing funding for others. It would result in steep funding drops for some tribes, particularly those in Alaska.

Using the 515 factor to supplement, rather than replace, the AEL and FMR factors in the IHBG formula is a good solution because no single cost measure perfectly captures local cost variation. This approach would raise funding for some of the tribes currently receiving the lowest per unit amounts. At the same time, it avoids big funding declines for any tribes.

See Chapter VII, for further discussion of alternative data sources.

Recommendations

1. Add 515 to supplement AEL and FMR

This recommendation follows from the recognition that the current adjustment factors used in the IHBG formula, AEL and FMR, may not capture local operating cost variations with full accuracy in all cases. No single cost measure perfectly captures local cost variation. AEL numbers were derived in different ways at different periods of time in program history. In addition, many tribes currently do not have an AEL. FMR represents the cost of rental housing in a location, rather than operating costs. This cost to rent is affected in some areas by housing supply and demand factors other than operating costs.

Operating cost data from the USDA 515 rural housing rental program is also a good, but not perfect, stand in for Indian housing operating costs. While the 515 program covers much of the same locations as Indian housing, there are no cost data available for some locations, such as remote parts of Alaska. The three measures together provide the best and fairest cost measure available.

2. Consider collecting operating cost data annually

Annual collection of detailed operating cost data could be useful for a number of purposes. First, the lack of information on the actual costs of operating LR and MH units limits understanding of how best to target resources to these units. In addition, collection of these data, perhaps as part of a revised APR, would provide useful input data that could be incorporated into performance measures in the future. Finally, if operating cost data are collected annually, the local area cost adjustment could incorporate actual Indian housing operating cost data, an approach that is not feasible using currently available data.

3. Use of actual cost data should not be adopted unless implementation difficulties can be solved

A major focus of this study was the collection of data on the actual costs of operating 1937 Act housing units. In addition to the benefits of increased understanding of these operating costs, the actual costs of operating 1937 Act units might be used as an adjustment factor. Actual costs have some attributes that make them an appealing measure for use in the IHBG formula. They can provide costs that reflect actual housing cost conditions in a current time frame. In addition, they could address the issue of underfunded maintenance by providing an

incentive to spend on this existing housing stock. However, actual cost data have some significant drawbacks and challenges which should be considered.

Issues complicating the adoption of actual cost data in the IHBG formula process include the need to institute cost data collection, the fact that total costs reflect variation in tribe policies and services as well as location-based cost differences, possible instability in the funding process, problems of verification and correction of self-reported data, and the possibility that basing funding on costs, by providing an incentive to increase costs, will lead to inefficient overspending on 1937 Act units. While several of these can be addressed, the last two, the administrative difficulties and cost of monitoring self-reported data, and the direct rewarding of increased spending on these units, are quite problematic and may be insurmountable obstacles to the use of actual cost data.

4. Consider modifying formula to separate program funding

The current regulations recognize that operating costs differ for each type of program included in FCAS: LR, homeownership (MH and Turnkey III or TK3), and Section 8. Each program has its own base funding amount derived from its own 1996 national average. This recommendation suggests that HUD and the negotiated rulemaking committee consider allocating each program's FCAS funding separately as well. This differentiation is recommended because of the differences in program purposes, operating needs, and future housing stock trends.

Further Recommendation: Assign missing AELs

The history of AEL use and assignment to tribes reflects changes in the use and application of the AEL. While differences in AEL assignment arose unintentionally, they have created an unequal situation in that some tribes have no AEL. Thus, these tribes cannot use the more beneficial of two indices, the AEL and FMR, as most tribes do. Rather, they must use the FMR index. An additional action to take might be to assign AELs to the tribes who do not have them. The analysis in this report indicates that the lack of AEL values for some tribes with current assisted stock appears to have under-funded at least four tribes. The criteria of fairness and equity suggest that all tribes should have an appropriate AEL value in the IHBG data files.

See Chapter IX, for further discussion of recommendations.

Study Methodology

The study team conducted outreach to maximize the diversity and number of tribes represented. The Operating Cost Data Entry System was designed to standardize the cost information which was received in many formats. The Research Design Plan's sampling approach changed to a more flexible approach that emphasized multiple contacts made to all tribes/TDHEs to maximize their ability to participate. Voluntary submission of data will not

yield high returns in cases where the outcomes for individual tribes/TDHEs are not beneficial to all.

The IHOC study included the research activities listed below. In addition, a number of other study-related tasks were conducted, including the development of a Purpose Report and a Research Design Plan and participation in a review after 25 percent of research was conducted. Research activities included:

1. Gathering input from tribes and tribal organizations.

2. Reviewing documents.

3. Developing and testing data collection categories, forms, and processes.

4. Gathering housing cost information from tribes/TDHEs in whatever format the tribes were using.

5. Compiling and reviewing the cost information.

6. Coordinating Paperwork Reduction Act requirements for approval of data collection.

7. Reviewing and evaluating other sources of housing operating cost information for use as possible location factor.

8. Reviewing IHBG formula operating cost funding procedures necessary to make recommendations on revised formula data or process

See Appendix for further discussion of methodology.

II. Introduction to the Indian Housing Operating Cost Study

The Indian Housing Operating Cost study was commissioned to develop an understanding of the costs of operating assisted housing in Indian Country and Alaska.

Study Background

The study follows discussion of the AEL factor during negotiated rulemaking sessions reviewing the IHBG formula in 2003 and 2004. While some committee members expressed that use of the AEL was generally acceptable, others stated their belief that continued use of the AEL was not appropriate because it was "not reflective of the true costs of operating affordable housing units" and "that individual AEL calculations were often inaccurately calculated."[2] No consensus was reached on the use of AEL in the formula, but during the course of the discussions, HUD indicated its intention to conduct a study on the use of the AEL in the IHBG formula allocation.

In December 2004 then Assistant Secretary Michael Liu and Deputy Assistant Secretary Rodger Boyd wrote to all tribes and TDHEs informing them of the beginning of the IHOC Study. The letter stated that there was a need to establish accurate measures of the costs of operating housing in tribal areas when that housing was developed under the Housing Act of 1937. It also stated that this study was undertaken with the goal of producing, for consideration, fair alternatives to the AEL factor currently used in the FCAS portion of IHBG formula where AEL values are used in the formula calculations. A copy of the Purpose Report describing the IHOC study was distributed with their correspondence.

This study was preceded by the Public Housing Operating Cost Study, which was carried out by Harvard's Graduate School of Design from 2000-2003. Although the names of the two studies are similar, their structures, goals, and premises are very different. The purpose of this study is to develop an understanding of the costs of operating assisted housing in Indian Country and Alaska, and to assess the use of cost data within the context of the IHBG formula, specifically its use as a local cost adjustment factor for distributing FCAS funds. This study addresses both the availability and collection of the actual costs of operating housing, as well as the assessment of these actual cost data and alternative cost data for suitability as a local cost adjustment factor in the IHBG formula. It is not intended to determine in a predictive or prescriptive way what the costs of operating Indian housing should be. The Public Housing Operating Cost Study, in contrast, was designed to estimate expected costs, and determine funding, for PHAs based on characteristics of each housing project. The Harvard study did not study the costs of operating assisted housing in Indian Country.

[2] Summary information taken from description presented in "NAHASDA Revisions to the Indian Housing Block Grant Formula, Final Rule." *Federal Register* 72:76 (April 20, 2007) p. 20022.

Organization of the Study

The study was conducted in two phases. The focus of the first phase was on gathering information in order to understand the critical issues and environment in which the study would operate. This phase included extensive effort to gather input from tribes and to identify the context affecting cost data collection. The second phase focused on the systematic collection of data that could be used in examining alternatives to the AEL in the IHBG formula. This report is a summary of the key findings during both phases of the study.

Organization of the Report

This report presents the results of the Indian Housing Operating Cost study. The first chapter provides an executive summary. The second chapter presents background information on Indian housing to set the context for the study. It describes the history of Indian housing and the present day housing programs and existing 1937 Act housing stock. The third chapter describes the IHBG formula funding mechanism in detail. Additional background information concerning the AEL and its history is presented in Chapter IV.

The fifth and sixth chapters relate to the costs of operating 1937 Act units. Chapter V presents the housing cost data gathered in this study, and discusses factors that affect operating costs. Chapter VI focuses on what was learned in terms of data availability and other aspects of the process of gathering housing cost data.

Chapters VII and VIII describe other data sources that might be used as a replacement for AEL. Chapter VII discusses the evaluation of many data sources, and Chapter VIII describes the most suitable alternative data source, operating costs from the USDA 515 program, in detail.

Chapter IX presents the study recommendations. It begins by presenting a framework for evaluating formula aspects, followed by recommendations. Study methodology follows in an appendix.

Overview of HUD's Indian Housing Program

When studying the costs of operating 1937 Act in the IHBG, it is important to understand the unique relationship that the Federal Government has with Native American tribes.[3] This chapter will outline the history of housing assistance beginning with the United States Housing Act of 1937 follow by HUD's Indian housing programs, and concluding with the NAHASDA. This chapter will provide the background for explaining how the NAHASDA Legislation changed HUD's programs which has led to the operating cost study.

Unique Relationship with the Federal Government

Native American tribes have the status of independent, sovereign governments. This status results from a history of conflict, negotiation, and treaties. Over time the Federal Government

[3] For the purpose of this study, Native Americans are defined as American Indians and Alaska Natives.

has obligated itself through laws, treaties, and pledges to protect Native American tribes and to interact as sovereign governments.

History of HUD's Housing Assistance

In the 1960s, HUD was assigned the task of providing affordable housing assistance to Native Americans. The United States Housing Act of 1937 (1937 Act) was the primary vehicle for this assistance. HUD's programs have changed significantly from the 1937 Act to the present 1996 NAHASDA legislation. These policy changes are also reflected in the current sovereign relationship between the Federal Government and tribes.

The 1937 Act Housing Program

The 1937 Act created the national public housing program for low income households. However, the 1937 Act did not address specific housing needs of the Native American population living in tribal communities. In 1961, the Public Housing Administration issued legal opinions that Indians living on reservations and in other Indian areas were eligible to participate in public housing programs. As a result of this determination, IHAs were created for the maintenance, operation, and development of affordable housing in tribal communities. IHAs were designed to operate similarly to Local Housing Authorities (LHAs).[4] However, it was clear by the 1970s that the unique housing conditions facing Native Americans still exhibited unmet needs in tribal communities. These needs were challenging to meet in part because of geographical location, economic conditions, and tribal cultural practices. It was also becoming clear that PHA operational practices and programs were different from those of IHAs.

A shift in the approach to servicing Indian housing needs came in 1974 when HUD established the Office of Indian Programs. Tribes finally had an advocate within HUD for their community and housing development needs. In 1984, HUD established the Office of Indian Housing as a part of the Department's Office of Public and Indian Housing (PIH). The Office of Indian Housing was renamed the Office of Native American Programs (ONAP) in 1992. This change brought the regional offices established for administering Native American programs under the management of a central office. Currently, ONAP consists of a headquarters office in Washington DC, and a network of six field offices located in Chicago, Oklahoma City, Phoenix (and Albuquerque), Denver, Seattle, and Anchorage.[5] ONAP's mission is to:

- Increase the supply of safe, decent, and affordable housing available to Native American families.
- Strengthen communities by improving living conditions and creating economic opportunities for tribes and Indian housing residents.
- Ensure fiscal integrity in the operation of the programs it administers.

[4] ONAP: New Employee Orientation Manual, March, 2007, pg. 3-1.
[5] ONAP: New Employee Orientation Manual, March 2007, pg. 5-1.

In the decades following this Act, fourteen programs provided funds to tribes and IHAs, either through a competitive process, a noncompetitive formula, or on a first come, first served basis. However, HUD/ONAP's primary 1937 Act housing programs in Indian Country until October 1, 1997 were:

LR

The LR program is essentially the Low Rent Public Housing Administration Program. This program became available to Native Americans in 1961. HUD funds would go to an IHA who used them to acquire the rights to land and to build new units, or to acquire and rehabilitate existing ones, for rent by income eligible families. The IHAs then managed the properties and received additional HUD funds representing the difference between allowable operating costs and tenant payments toward rent.

MH

The MH program provided opportunities for lower-income Native American families to purchase decent, affordable housing. The program became available in 1962. The purpose of the program was to provide opportunities for income eligible families to purchase decent, affordable housing and to participate more fully as homeowners. As with the LR Program, the IHA developed the housing with HUD funding. However, the individual home buyer became responsible for all operating and maintenance costs. The program was a lease-purchase arrangement that built equity in a MH equity account (MEPA) which was applied toward the purchase price of the home or refunded should the family leave the MH program prior to achieving ownership.[6] Families did not actually gain title to their properties until all of their payment obligations were met, they exercised their option to acquire title, and the tribe completed the conveyance process. The MH Program was available to qualified low-income Indian families on Indian lands. Over the years the program evolved into two components:

1. Old MH Program-Homeownership units developed before March 9, 1976, authorized under HUD administrative directives and handbooks.
2. New MH Program-Homeownership units developed since March 9, 1976, under the first consolidated Indian housing regulations. The 1988 Indian Housing Act

[6] In the private sector "equity" usually refers to the funds that would remain from the sale of a house once the mortgage and other obligations were paid off. In the private market, equity grows more quickly in active housing markets. The restricted housing market on Indian lands does not provide the same increase in asset value as might be found in the private sector. In the MH program equity generally refers to any payments over the administrative charge. These excess payments were credited to the homebuyers Mutual Help equity account. When the equity account balance equaled the remaining balance on the purchase price schedule, ownership could be achieved. In the best case scenario where the homebuyer paid the maximum payment under the program, the term of the purchase price schedule could be cut in half. A homebuyer with a 25-year agreement could own the property in as little as 12.5 years. Conversely, if the homebuyer never paid more than the administrative charge, ownership would be achieved in 25 years. As this was a lease-to-own program homebuyers did not have the ability to sell their home before ownership. Should a homebuyer leave the program before achieving ownership the IHA continued ownership and found another income eligible family to become a subsequent homebuyer. The MEPA money from the original homebuyer is refunded and the subsequent homebuyer gets a new purchase price schedule with the purchase price and the term determined by the IHA. Like the original homebuyer, the subsequent homebuyer earns equity in the same manner, i.e. any amount over the administrative charge is credited to the MEPA account.

provided a statutory basis for MH. However the MH program design and execution that had already existed in the regulations did not change.[7]

TK3

The TK3 became available to American Indians in the early 1970s. The purpose of the program was to provide homeownership opportunities for lower-income families. Under this program, only 2,300 units were built. The IHA managed the properties and received additional HUD funds to cover the difference between allowable operating costs and the occupant's TK3 payments.

Modernization Program

Finally, another very significant HUD program for the IHAs was the modernization program. Funds for modernization of IHA housing were provided through the Comprehensive Improvement Assistance Program (CIAP) and the Comprehensive Grant Program (CGP). The National Affordable Housing Act of 1990 expanded the allowable uses for CIAP beyond modernization for rental housing to include modernization grants for MH units, TK3 units, and management improvement grants for other homeownership developments. CIAP was distributed under a competitive allocation process. CGP, which became effective in 1992, provided large PHAs and IHAs (250 units or more) with a more flexible program which was distributed by a formula allocation.

Impact of the 1937 Act Program in Indian Country

According to the *1996 Assessment of American Indian Housing Needs and Programs: Final Report,* these housing programs had a significant impact on the provision of housing in tribal areas in the decades after 1961. Under HUD's two major Indian housing programs, over 100,000 units had either been completed or were in various stages of production pipeline at the end of Fiscal Year 1997. In Fiscal Year 1998, 41.3 percent of the units were LR, 57.6 percent of the units were MH and 1.1 percent of the units were TK3. The MH Program was very popular because of the strong preference for homeownership in Indian Country. Table 2-1 below illustrates the housing inventory for these programs, as represented by the number of units in management by the six area offices at the beginning of FY 1998, the first year of NAHASDA.

Area Office	Low Rent	Mutual Help	Turnkey III	Total
Alaska	903	5,038	0	5,941
Eastern/Woodlands	5,376	3,574	382	9,332
Northern Plains	9,635	6,572	322	16,529
Southern Plains	3,124	10,255	0	13,379
Southwest	8,425	12,674	53	21,152
Northwest	1,926	2,879	6	4,811
Total	29,389	40,992	763	71,144

Table 2-1: Units Under Management by Six Area Offices
(Source: IHBG Database, FY98FIN.spss file)

[7] U.S. Department of Housing and Urban Development, Assessment of American Indian Housing Needs and Programs: Final Report, May 1996, pages 104-108.

NAHASDA

Congress further attempted to address the unique needs of Native Americans, as well as their housing conditions, with the passage of NAHASDA on October 26, 1996.[8] The Act recognizes the right of tribal self-governance and the unique relationship between the Federal Government and the governments of Indian tribes, established by long-standing treaties, court decisions, statutes, Executive Orders, and the United States Constitution.[9]

NAHASDA reorganized and simplified the process of providing Federal housing assistance by eliminating several separate programs (including the LR, MH, TK3, and the modernization programs) and replacing them with single block grant program. NAHASDA also provided Federal assistance for Indian tribes in a manner that recognized the rights of tribal self-governance. NAHASDA has been the primary housing program for tribes since Fiscal Year 1998-present. Section 202 of the NAHASDA Act lists the following eligible affordable housing activities:

1. **Indian Housing Assistance**. Modernization or operating assistance for housing previously developed or operated under HUD's former Indian housing programs.
2. **Housing Development.** Acquisition, new construction, reconstruction, and moderate or substantial rehabilitation of affordable housing.
3. **Housing Services.** Housing-related services for affordable housing, such as housing counseling for rental or homeownership assistance, establishment or support of resident management organizations corporations; energy auditing; activities related to self-sufficiency and other services.
4. **Housing Management Services.** Management services for affordable housing.
5. **Crime, Prevention and Safety Activities.** Safety, security, and law enforcement measures and activities appropriate to protect residents of affordable housing from crime.
6. **Model Activities**. HUD may specifically approve housing activities that are designed to develop and support affordable housing.

The first activity listed, Indian Housing Assistance, targets costs associated with units developed under the 1937 Act. Aside from Housing Development, the remaining activities may cover costs associated with 1937 Act units as well as units developed under NAHASDA.

[8] Pub. L. No.104-330, 110 Stat. 4016 (codified as amended at 25 U.S.C. §§ 4101-4195 (Supp. IV 1998).

[9] U. S. Department of Housing and Urban Development, Office of Public and Indian Housing-Office of Native American Programs: Report to Congress, Fiscal Year 2006, pg. 6.

IHBG

The IHBG program gains its statutory authority directly from NAHASDA which authorized direct block grants to tribal governments or TDHEs. The regulations governing the IHBG program were established in a final rule that became effective on April 13, 1998.[10] Grants are awarded based on a formula that was established through a negotiated rulemaking process with tribes. IHBG funds are to be used to maintain existing 1937 Act units and may also be used for the other eligible activities. Grants may also be used for the six affordable housing activities listed previously.

Grants are now available to 581 participating tribes based on a noncompetitive allocation formula developed through a process of negotiated rulemaking.[11] Section 302 of NAHASDA (25 U.S.C. 4152) required that the formula consider:

> (1) The number of low-income dwelling units owned or operated at the time pursuant to a contract between an Indian housing authority for the tribe and the Secretary.
>
> (2) The extent of poverty and economic distress and the number of Indian families within Indian areas of the tribe.
>
> (3) Other objectively measurable conditions as the Secretary and the Indian tribes may specify.

IHBG Formula

The formula developed by the negotiated rulemaking committee is described in 24 CFR 1000, Subpart D. The formula first determines an amount for the 1937 Act units that continue to be operated by approximately 260 tribes. These 1937 Act units are referred to as FCAS. An amount that represents continuation of the 1937 Act Operating Subsidy is calculated, and then an amount that represents the 1937 Act Modernization subsidy is calculated. In both cases each FCAS unit is funded at the 1996 national average rate for that type of unit, e.g., LR operating subsidy, LR modernization subsidy, etc. These 1996 amounts are annually adjusted for inflation. The current year average amounts are then adjusted for the tribe's geographic location.

There are three indices that are used in adjusting a tribe's FCAS allocation. The modernization subsidy is adjusted by the ratio of the tribe's current year TDC to the national current year TDC. The operating subsidy is adjusted by one of two ratios, the tribe's current

[10] U. S. Department of Housing and Urban Development, Office of Public and Indian Housing-Office of Native American Programs: Report to Congress, Fiscal Year 2006, pg. 6.
[11] FY 2007 IHBG allocations as found on http://www.hud.gov/offices/pih/ih/codetalk/onap/ihbgformula/fy07finsummaries.xls

year 2-bedroom FMR compared to the national average FMR[12] or the tribe's 1996 AEL compared to the national average AEL.

Although the FCAS portion within the IHBG represents funding to manage and maintain 1937 Act Indian housing, there is no requirement that all of these FCAS funds be spent on 1937 Act units alone. Also, there is no requirement that prevents additional funds from the Need portion of the grant from being spent on 1937 Act units. NAHASDA allows TDHEs to determine how their affordable housing funds are distributed.

Operation

While the block grant is allocated to tribes, many tribes select a TDHE to be the actual recipient of funds. In a few cases, different tribes appoint the same TDHE to receive funds and administer housing programs. The TDHE becomes responsible for preparing an Indian Housing Plan (IHP) before funds are received and an APR to describe progress made. Within limits allowed for financial reporting in 24 CFR 85.41, HUD has the authority to monitor expenditures of NAHASDA block grants and to require recipients to submit quarterly expenditure reports beyond what is included in the IHP and APR. If HUD discovers through site visits or reviewing tribal reports that housing programs fail to comply with the regulations of NAHASDA, it can reduce or terminate future grant requests and/or provide replacements for the housing entities managing the programs.

In 2007, 581 tribes were eligible to receive allocations through the IHBG formula. However, not all eligible tribes chose to participate. A few have withdrawn from the IHBG formula allocation process, and a few others have never submitted an IHP. Approximately 260 tribes are eligible to receive FCAS funds.[13]

Continued Operation of 1937 Act Units under Management

Even though NAHASDA eliminated the 1937 Act Program, a large number of LR and MH units continue to operate under tribe/TDHE management. As Table 2-1 showed, in FY 1998, the first year of NAHASDA, 71,144 LR, MH, and TK3 units were under management. Table 2-2 shows that as of the beginning of FY 2007, 59,374 LR, MH, and TK3 units were still under management. Since the start of NAHASDA, 11,770 units, or about 16 percent of the units in FY 1998, have been removed from the IHBG database because of conveyances, demolition, or deprogramming of units for other uses such as a day care facility.

[12] HUD assigns FMR values to counties as part of its continuing 1937 Act activities. A tribe's FMR value is the average of the FMR values for the counties in its IHBG formula area. The national average FMR is the average of the FMR values for tribes. It is not the average for all counties in the nation.

[13] Alaska represents a unique situation where most villages do not submit an IHP and thus the Regional Corporation becomes the recipient. FCAS are counted for the Regional Corporation rather than for the village. Thus, the number of tribes eligible for IHBG funds counts villages and the number of tribes eligible for FCAS does not.

Area Office	Low Rent	Mutual Help	Turnkey III	Development	Total Under Management
Alaska	1,172	3,195	0	4	4,367
Eastern/Woodlands	5,752	2,660	105	209	8,517
Northern Plains	9,938	4,173	59	105	14,170
Southern Plains	3,251	6,005	24	41	9,280
Southwest	9,284	9,638	15	220	18,937
Northwest	2,045	2,058	0	70	4,103
Total	31,442	27,729	203	649	59,374

Table 2-2: 1937 Act Units Still under Management or in Development, as shown in FY 2007 Final Data
Source: www.hud/gov/offices/pih/ih/codetalk/onap/ihbgformula

Rental Units

Since the LR Program was one of the original Public Housing Programs, LR units will remain under management until the units are demolished, deprogrammed, or destroyed. Comparing Tables 2-1 and 2-2 shows that between 1998 and 2007 there has been an increase of 2,053 LR units, about 7 percent of the 1998 number, in the units under management. It is interesting to note that the Northern Plains, Southwest, and Eastern/Woodlands Area Offices have the largest number of LR units under management.

Homeownership Units

MH and TK3 units are both homeownership units and are treated as equivalent within the IHBG formula. Southwest, Southern Plains, and Northern Plains Area Offices have the largest number of MH units under management. MH units will convey to homeownership after 15-25 years (depending on the individual MH Occupancy Agreement). Comparison of Tables 2-1 and 2-2 shows that while there were 41,755 homeownership units in FY 1998 this had declined to 27,932 homeownership units in FY 2007, a decline of 33 percent. However, this decline may be deceiving when considering the cost of operating units developed under 1937 Act programs; many TDHEs are still choosing to provide maintenance and repair services to homeowners. This is especially true for conveyed units occupied by elders.

Units Still in the Development Pipeline

New units are continuing to be developed under the 1937 Act programs even though NAHASDA discontinued the program. The FY 2007 FCAS data shows there are still 649 units of 1937 Act units in the development pipeline. Southwest, Eastern/Woodlands, and Northern Plains Area Offices have the largest development number of these unbuilt units.

Age of 1937 Act Units

Modernization and operating assistance for 1937 Act housing is an eligible affordable housing activity under NAHASDA. The age of current units under management has been analyzed by Dates of Full Availability (DOFA). The DOFA dates provide information on the production levels of new construction by decades. Table 2-3 lists the number of LR, MH, and TK3 units still under management by decades by DOFA dates.

The most productive time frame was 1980-1989 with 24,887 units built or 42 percent of all currently existing units. Between 1990 and 1999, 19,859 units or 33 percent of all current units were built. Over half of all current 1937 Act units were built before February 28, 1988. Over half or all LR units were built before March 31, 1986. This performance rate is of concern because of wear and tear that occurs naturally after 20 years, especially in assisted housing units.

Decade	Low Rent	Mutual Help	Turnkey III	Total
1963-1969	2,095	38	0	2,133
1970-1979	8,621	1,649	120	10,390
1980-1989	12,784	12,044	59	24,887
1990-1999	7,095	12,740	24	19,859
2000-2007	847	1,258	0	2,105
Total	31,442	27,729	203	59,374

Table 2-3: Production Dates of Units under Management for FY 2007, by Decades

Figure 2-1 shows the number of current LR and MH/TK3 units that DOFAed in each FY. There are few homeownership units shown before FY 1979. This reflects the nature of the MH program. Units are expected to convey 15-25 years after DOFA. The ONAP has been working extensively with tribes/TDHEs to identify homeownership units that have conveyed to buyers and remove these units from their management stock

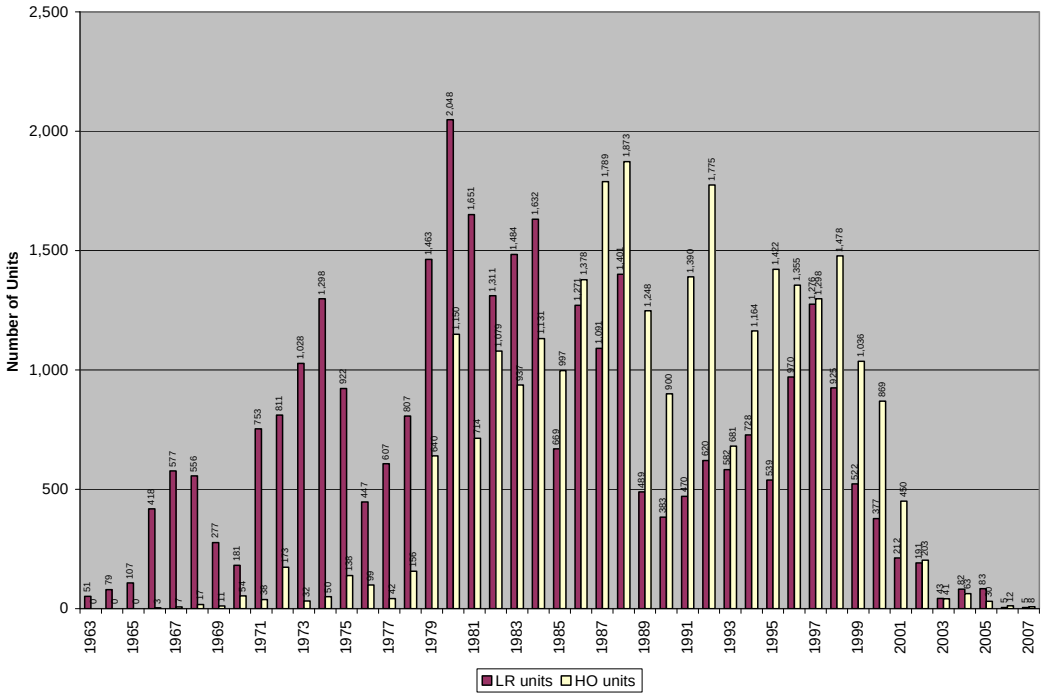

Figure 2-1: Number of LR and MH/TK3 units DOFAed by Year[14]

Figure 2-2 provides a projection of the number and time line of homeownership units remaining under management based on DOFA dates. The time line extends into Fiscal Year 2031; this indicates that tribes/TDHEs will be working with MH and TK3 units for at least another 24 years.

[14] Represents the number of units reaching DOFA during the previous fiscal year.

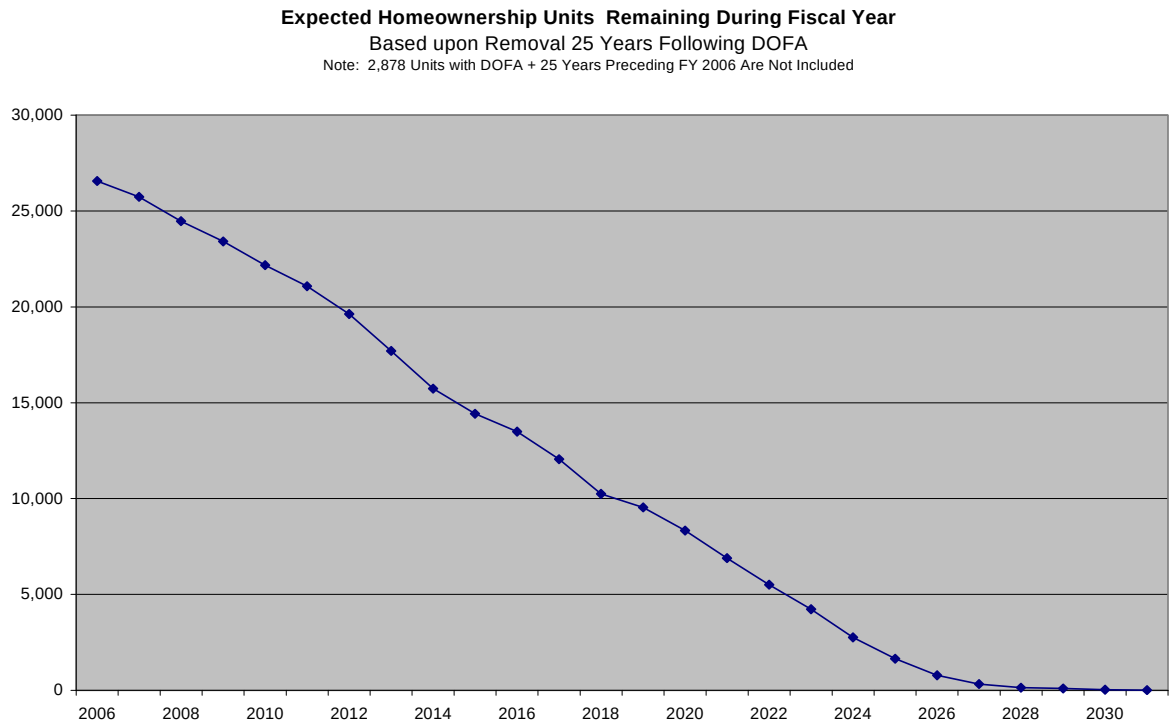

Figure 2-2: Predicted Homeownership Units by Year

ONAP's Role in 1937 Act Program

ONAP is responsible for ensuring program compliance for existing LR and MH units through monitoring, and the review of tribe's self-monitoring, IHPs, and APRs. This role will continue as long as there are 1937 Act units under management.[15]

Summary

The IHBG Final 2007 allocation run has reported that there are 59,374 of 1937 Act units under management (see Table 2-2). There may continue to be homeownership units under management for at least another 24 years. LR units will remain under management for an indefinite period unless they are demolished, deprogrammed, or destroyed. There are currently 31,442 LR units under management. There are still 649 units in the pipeline for development. The numbers show that MH units, as well as LR units, will continue to be a major factor in the IHBG funding.

Key Points

NAHASDA Block Grant funding represents a shift to increased flexibility and self-determination on the part of tribes/TDHEs to meet housing needs.

[15] ONAP New Employee Orientation Manual, March 2007, pg. 3-5.

NAHASDA specifies that a portion of IHBG funding be used for the operation and maintenance of units funded under the 1937 Act that are under management by the tribe/TDHE.

The number of LR units is expected to remain stable. The number of homeownership units is expected to decline to close to zero over the next 25 years, but is expected to remain above 10,000 units for the next 10 years.

III. The IHBG Formula

This chapter describes the IHBG formula in detail, starting with its statutory basis and its regulatory framework. The mechanics of the formula are described, so that a thorough understanding of the formula can serve as a basis for the report's discussion of the AEL, with considerations for changing the formula process or procedures, and recommended changes.

Statutory Requirements

The IHBG formula was designed to implement NAHASDA. Its two components, FCAS and need, reflect language in that statute. Any formula alternatives must be consistent with the statutory language. Section 302 of NAHASDA (25 U.S.C. 4152) established the basic building blocks of the formula. This excerpt shows that the statute first specifies that the formula be based on the number of 1937 Act units under management. The second part specifies factors used in the Need portion of the formula. Finally, the statute allows for the use of additional factors as agreed upon by HUD and tribes.

> The formula shall be based on factors that reflect the need of the Indian tribe and the Indian areas of the tribes for assistance for affordable housing activities including the following factors:
>
> > (1) The number of low-income dwelling units owned or operated at the time pursuant to a contract between an Indian housing authority for the tribe and the Secretary.
> >
> > (2) The extent of poverty and economic distress and the number of Indian families within Indian areas of the tribe.
> >
> > (3) Other objectively measurable conditions as the Secretary and the Indian tribes may specify.

FCAS funding is also addressed elsewhere in the statute. NAHASDA places priority on the existing 1937 Act housing stock with this language in 25 USC 4133,

> Each recipient who owns or operates (or is responsible for funding any entity that owns or operates) housing developed or operated pursuant to a contract between the Secretary and an Indian housing authority pursuant to the United States Housing Act of 1937 [42 U.S.C. 1437 et seq.] shall, using amounts of any grants received under this chapter, reserve and use for operating assistance under section 4132(1) of this title such amounts as may be necessary to provide for the continued maintenance and efficient operation of such housing. [16]

[16] US Code-Electronic Edition, accessed at http://www.access.gpo.gov/uscode/uscmain.html

The statute also establishes a funding "floor" for each tribe based on the 1996 operating subsidy and modernization levels, so that tribes are assured funding at this level as a minimum. These statutory references indicate that NAHASDA intends for the IHBG formula to provide funding for tribes/TDHEs to use to continue operating units funded under the 1937 Act, while at the same time providing funding that reflects specific need factors.

IHBG Formula Regulations

Regulations for implementing the IHBG formula are listed in 24 CFR 1000 subpart D, including the accompanying Appendices A and B. The regulations set out general principles for the formula, including the criteria that "The IHBG formula is used to allocate equitably and fairly funds made available through NAHASDA among eligible Indian tribes."[17]

The regulations also set forth the concept of cost adjustment for local area costs. They define two variables to make these adjustments. Local area cost adjustment for management, to be applied to operating funds, is defined as the AELFMR[18], "the greater of the AEL factor or FMR factor." The local area cost adjustment for construction, defined as the TDC factor, is used to adjust the amount of modernization funds each tribe receives. In addition, the regulations state that Need allocations are adjusted using the TDC.

Finally, the regulations set forth specifics to operationalize the formula; they also specify, name, and define formula variables. The detailed specifications of the formula are included in Appendix B to 24 CFR 1000. The regulations are referenced where appropriate in the formula discussion below.

IHBG Formula

The IHBG formula was developed through negotiated rulemaking, as directed by Congress in passing NAHASDA. The main steps in the formula are summarized in Table 2-1. The formula first calculates, for each tribe with 1937 Act units under management, an initial total FCAS funding amount for operating subsidy and modernization The initial amounts are calculated by multiplying the number of each type of unit—LR, MH, TK3, and Section 8—by a per unit base funding level based on the 1996 national averages for operations and maintenance. The initial subsidy amount is then adjusted for inflation and also adjusted using two local area cost adjustments, the AELFMR factor for operating funds and the TDC factor for modernization funds. The total amount distributed to tribes with FCAS, for operating and modernization costs, is subtracted from the total allocation to obtain amount available for Need allocations. The formula then distributes these remaining funds to all IHBG tribes using seven indices of need developed from measures of population, income, and housing status. After making these distributions, funding amounts for each tribe are adjusted to ensure that tribes with FCAS units have a current year allocation at least as high as their FY 1996 allocation. The first two steps, those concerned with FCAS, are the focus of this study, in

[17] 24 CFR 1000.301

[18] The regulations refer to the AELFMR, while the actual formula code labels this variable FMRAEL. In this report we refer to this variable as AELFMR.

particular the second step which concerns the use of AEL as a local area cost adjustment factor.

Description of Formula Steps

The three main parts of the IHBG formula are: calculate the amount of FCAS allocation for each tribe; calculate each tribe's need funds; and adjust total allocations as necessary to meet minimum funding levels for each tribe. The following discussion details the steps within the FCAS subsidy allocations, particularly in regard to the operating subsidy.

Calculations for the operating subsidy component begin with the current number of FCAS units for each of the three 1937 program categories: LR, homeownership (which includes MH and TK3 units), and Section 8. The formula makes an initial calculation of the amount needed to fund, for each tribe, units in each of the three program types by multiplying its number of FCAS units by the 1996 national average for that type: $2,440 per unit for LR, $528 per unit for MH, and $3,625 for Section 8 units. These amounts are summed creating a value for the variable Operating Subsidy. In addition, an initial amount of modernization funds for each tribe is calculated by multiplying the tribe's number of LR and homeownership units by the modernization base amount, $1,974. This base amount also represents the 1996 national average.

At this point the formula has calculated a funding amount for FCAS units based on per unit amounts from 1996. This amount is next adjusted for inflation, i.e. the change in the value of money since 1996. The inflation adjustment applies the change in Consumer Price Index (CPI) for housing since the beginning of FY 1996.[19] This establishes each tribe's initial base amount for FCAS funding, including operating and modernization assistance.

The second main step (See Table 3-1) in the FCAS portion of the formula makes adjustments for location to each tribe's funding amount. The operating subsidy is adjusted using the AELFMR factor. The AELFMR factor is the "greater of (the) AEL Factor or FMR Factor weighted by national average of AEL Factor and FMR Factor." [20] Each of these two location factors represents the ratio of local values to the national weighted average, where the weighting is based on the tribe's unadjusted operating subsidy. The combined AELFMR, which applies the more favorable of the two factors, is divided by the national weighted average of the AELFMR. This recalibrates the AELFMR factors to average to one (representing 100 percent of funds).

[19] The variable is described as "inflation," but it is the relative difference in the CPI for the last complete FY compared to the CPI value for housing in October 1995. Since 1996, the variable has always represented an increase; however, under certain economic conditions, this could reflect deflation from year to year.
[20] § 1000, Appendix B

Table 3-1 Overview of IHBG Formula Steps

Main step	Description of Steps
Calculate each tribe's base FCAS funding amount.	—Multiply number of FCAS in each category (LR, MH, Section 8) by national base amounts, generating aggregate funding for each program. —Adjust for inflation. —Sum the total base funding for the three program types. —Calculate total modernization funding by multiplying LR, MH, and TK3 units by base mod amount and inflation adjustment.
Adjust FCAS funding.	—Calculate AEL factor and FMR factor for each tribe, dividing tribe's AEL by the national average AEL and FMR by national average FMR. —Create AELFMR for each tribe by selecting highest of its AEL factor or its FMR Factor. —Calculate AELFMR factor for each tribe, dividing its AELFMR by the national average AELFMR. —Adjust tribe FCAS operating funding by multiplying the tribe base amount by the local area cost adjustment, the AELFMR factor. —Adjust modernization funding by applying the TDC factor (TDC divided by national average TDC).
Distribute need funding.	—Sum all tribes' FCAS operating and modernization funding. —Subtract total FCAS subsidy from total IHBG appropriation to get total Need funds available. —Calculate initial Need allocations to tribes based on seven need variables, including population, income, and housing status. —Adjust allocations to tribes by multiplying initial need allocation by the TDC local area cost adjustment (TDC divided by national average TDC).
Adjust funding amounts to minimums.	—Compare funding for each FCAS tribe to its 1996 funding level and to minimum funding amounts. —Adjust tribes to minimum levels where necessary. —Reduce funding for other tribes proportionately.

The modernization subsidy is adjusted using the TDC, in a ratio of the local TDC to the national weighted average TDC, where the weighting is based upon the tribe's modernization subsidy.

The application of the "local area cost adjustment for management," or AELFMR, as it is called in the formula, is expressed by the following equation:

OPSUB = [LR * LRSUB + (MH+TK) * HOSUB + S8 * S8SUB] * INF * AELFMR

Where:

LR = number of Low-Rent units.
LRSUB = FY 1996 national per unit average subsidy for Low-Rent units = $2,440.
MH+TK = number of Homeownership units, the sum of Mutual Help and Turnkey III units.
HOSUB = FY 1996 national per unit average subsidy for Homeownership units = $528.
S8 = number of Section 8 units.
S8SUB = FY 1996 national per unit average subsidy for Section 8 units = $3,625.
INF = inflation adjustment determined by the Consumer Price Index for housing.
AELFMR = greater of AEL Factor or FMR Factor weighted by national average of AEL Factor and FMR Factor. [21]

In the text of the regulations, the calculation of FCAS is described as follows:

> The operating subsidy component is calculated based on the national per unit subsidy provided in FY 1996 (adjusted to a 100 percent funding level) for each of the following types of programs—Low Rent, Homeownership (Mutual Help and Turnkey III), and Section 8. A tribe's total units in each of the above categories is multiplied times the relevant national per unit subsidy amount. That amount is summed and multiplied times a local area cost adjustment factor for management.[22]

Maintain 1996 Levels

The last two main steps shown in Table 3-1 are not a function of AEL, and are not addressed in this study. The distribution of funds based upon the formula Need variables distributes any funds remaining after the amounts for FCAS have completed. In the final main step in the formula there is a check of CAS funding. If any tribe is receiving less than its 1996 total subsidy, then it is adjusted by an amount that brings it up to that 1996 level. In the 2007 allocation, 20 tribes were adjusted by amount ranging from just over $1,000 to over $500,000 for a total of $3,398,510.

Effects of Local Area Calculations

As the detailed regulations specify in Appendix B, for each tribe the total funding for each type of program—LR, homeownership, and Section 8—is summed together, and then adjusted for inflation, then adjusted for local area costs using the AELFMR factor. One result of this formula structure, which applies a single AELFMR factor to all types of units as described in the regulation Appendix, is that the total funding for each program type generated in the first step does not equal the total funding actually distributed for these program types. Put another way, the effective base amount for each unit differs from the

[21] § 1000, Appendix B
[22] § 1000, Appendix A

original national base amount adjusted for inflation. A tribe with an AELFMR factor of 1.0 does not receive the national per unit base amount (adjusted for inflation) for each unit type.

The program funding differences occur because the national average AELFMR described in the regulation as the index denominator is not the same as the national average AELFMR for each program. The national weighted average AELFMR, used as the denominator in the AELFMR factor, reflects the uneven distribution of unit types by AEL or FMR value. A relatively high proportion of homeownership units are operated by tribes with higher than average AELs, resulting in an overall homeownership AEL index of 1.19. Conversely, Section 8 and LR units are disproportionately operated by tribes with AELs that are below the national average. These programs have overall AEL indices of 0.99 and 0.83, respectively. Homeownership units as a group receive 19 percent more funds than their national base 1996 amount would justify. LR units as a group receive 1 percent below the inflation adjusted national base 1996 amount and Section 8 units receive 17 percent below the base amount in total. The per-unit amount received by tribes reflects this distribution. This shift would not occur if each program—LR, MH, and Section 8—had a separate AELFMR, based on the national weighted average of that program type only, but this type of formula change would require regulatory revision.

Summary

In summary, the IHBG formula calculates an amount for the operation of 1937 Act units before distributing funds to all tribes based upon housing need. These calculations are based upon a component for operating subsidy and a component for modernization subsidy. In the formula, AEL is a variable in the local areas cost adjustment factor for operating subsidy.

The regulations specify a use for AEL in the IHBG formula that differs from its use and form prior to NAHASDA, which is described in the next chapter. In the IHBG formula the "AEL factor" is the ratio of the individual AEL to the weighted national average of AELs.[23] The history of the AEL, and of AEL assignment to tribes, is presented in the next chapter.

Key Points

Section 302 of NAHASDA (25 U.S.C. 4152) states:

> The formula shall be based on factors that reflect the need of the Indian tribe and the Indian areas of the tribes for assistance for affordable housing activities including the following factors:
>
> > (1) The number of low-income dwelling units owned or operated at the time pursuant to a contract between an Indian housing authority for the tribe and the Secretary.

[23] § 1000.302

(2) The extent of poverty and economic distress and the number of Indian families within Indian areas of the tribe.

(3) Other objectively measurable conditions as the Secretary and the Indian tribes may specify.

NAHASDA states in 25 USC 4133:

> Each recipient who owns or operates (or is responsible for funding any entity that owns or operates) housing developed or operated pursuant to a contract between the Secretary and an Indian housing authority pursuant to the United States Housing Act of 1937 [42 U.S.C. 1437 et seq.] shall, using amounts of any grants received under this chapter, reserve and use for operating assistance under section 4132(1) of this title such amounts as may be necessary to provide for the continued maintenance and efficient operation of such housing.

The regulations present specific variables and equations to be used in the formula. They specify the allocation of FCAS funds based on per unit amounts, which are adjusted for local areas costs. Remaining available funds are distributed on the basis of need variables, which are also adjusted for local area costs.

The regulations specify that funding be adjusted using local area cost adjustments. For operating costs, this is the AELFMR factor. For modernization costs, this is the TDC adjustment.

In practice, the adjustment procedure specified in the regulations effectively changes the national per unit base amount for each program type. This occurs because, as the regulations specify, the funds for the different program types are summed into a single operating subsidy amount which is then adjusted for local area costs, rather than the different program funds remaining distinct until after adjustment. With the formula steps as specified by the regulations, it is a result of the uneven distribution of program types by AELFMR value.

IV. Cost Adjustment Factors

As reviewed in the last chapter, the IHBG formula uses the AEL, along with FMR, as a local area cost adjustment factor to distribute the FCAS operating funds. The initial FCAS funds for each tribe are determined by multiplying the number of each type of unit (LR, MH, TK3, and Section 8) by the national base funding amount, then adjusting for inflation. The initial operating funding amount for each tribe is then adjusted using the AEL and FMR indices, which allocate each tribe's per unit operating funds relative to the national base amount. Modernization funds are allocated following a similar process, using TDC as an index to fund LR, MH, and TK3 units. This chapter discusses the three adjustment factors. It begins with an in-depth review of the historical background of the AEL, including AEL use by PHAs and AEL assignment to tribes. It describes the three variables, AEL, FMR, and TDC, showing their geographic distribution of values. The final section discusses the AELFMR factor and shows how this composite differs from its components, the AEL and FMR factors.

History of the AEL

The current use of AEL is very different from its original historical use. Prior to the implementation of the IHBG in Federal Fiscal Year 1998, operating subsidy for low-rent units developed under the 1937 Housing Act was computed under the Performance Funding System (PFS). A critical component of the PFS was the AEL. Within PFS, the AEL was the template designed to provide a per unit per month (PUM) amount that represented the cost of administering a well-run public housing rental program.

The PFS

The PFS was put into place in April 1975, following HUD contracts with the Urban Institute to develop a performance-based system of allocating funds. The PFS was used to establish funding levels for rental units administered by LHAs and IHAs.

Under the PFS, LHAs used their 1975 budget as their AEL, as long as it fell within an equation-based expected range of cost. A regression equation was used to relate actual costs of "well-managed" LHAs, defined as those with the highest tenant and management satisfaction, to PHA characteristics.[24] The LHAs with the highest scores in tenant and management satisfaction in each size group—small, medium, and large—were used as a basis for cost data. A sample of 120 LHAs was surveyed and an extensive number of interviews with tenants and management staff used to assess satisfaction and perceptions of operating conditions. Twenty-four performance variables were used, including tenant satisfaction with project, with maintenance, and with security; management evaluation of unit and building condition; PHA employees' job satisfaction; and employees' perceptions of

[24] A regression equation is a statistical technique that expresses the relationship of one set of data, the explanatory variables, to data on a dependent variable. It can then be used to predict probable outcomes based on a new set of explanatory data. In this case, cost was the dependent variable.

how well the PHA was meeting its objectives. Performance variables were adjusted for factors out of the control of the PHA, including project size, age, and neighborhood conditions.

The PFS equation used building and other characteristics to generate an expected range of costs. It was never used directly to generate AEL but was used to update the prior year's expense level. An estimate for each PHA was generated by the cost equation, plus a range factor representing a confidence interval on either side of the estimate. FY 1975 costs are used if they fall into the range. PHAs with costs above the range had their funding held at the same level until their expenditures fell into the range, which was adjusted yearly for inflation and other factors. The structure of the PFS funding formula construction meant that the AEL for the previous year had a major impact on predicted costs, so cost conditions in the base year continued to influence the subsidy level. [25]

Utility costs were treated separately because they are not necessarily closely related to the equation variables and because both rates and consumption are subject to unanticipated change. These changes caused some variability in year to year LR funding. IHAs would estimate utility costs annually. When the actual costs were known, IHAs were supposed to adjust for the difference—they would pay back funds if their actual costs were lower than the estimated amount, or get more funds from HUD if costs exceeded the estimate.

Funding for MH units did not involve the PFS, but was based on year to year requests. MH costs included audit expenses, homeownership counseling, and training. There was a great deal of year to year variability in payments in response to MH funding requests. For example, requested training funds could be $5,000 in one year, rising to $25,000 in the next.

PHA Funding Moves Away From AEL

HUD evaluated the use of AEL in funding PHAs in various studies in the 1980s and 1990s. Congress subsequently directed HUD to conduct a study of "the cost to operate well-run public housing." In May 2000 the Harvard University Graduate School of Design began the study of the costs to operate well-run public housing. This study was not intended to, and did not, include Indian housing. A final report was submitted to HUD in July 2003, and the Harvard Study operating cost model was subsequently used by HUD as the basis for a new, project-based formula for funding public housing operating costs.

Under the new formula for funding operating costs of Public Housing units, each PHA receives funding based on a formula-generated Project Expense Level (PEL). The new formula is based on a model that links project characteristics, rather than PHA characteristics, to operating costs. It is based on Federal Housing Administration project operating costs. Concerns of circularity (i.e., that prior funding levels would determine

[25] Some PHAs felt that their actual base year expenditures were constrained by the stringent funding system previously in place. PHAs whose actual expenditures fell within the expected range were allowed to appeal if they felt that their base year expenditure level had been unduly limited by previous rules. See *Revised Methods of Providing Federal Funds for Public Housing Agencies: Final Report.* Feins, Judith et al. June 1994: Abt Associates, and *Federal Subsidies for Public Housing: Issues and Options*. 1983: Congressional Budget Office.

current expenses and thus put a ceiling on costs) resulted in the Harvard Study's use of proxy data. However, the study was criticized by many in Public Housing on the grounds that the sources used to generate funding needs for each PHA did not reflect actual operating conditions, and therefore costs, for PHAs.

AEL Assignment for Tribes

While the AEL is no longer used to determine operating funds for PHAs, it remains as a cost adjustment factor in the IHBG formula. The following section focuses on the origins and application of the AEL in the funding of Indian housing operating costs. In the first year of the IHBG formula, 211 tribes/TDHEs with FCAS had values for AEL. Presently, 221 tribes with FCAS have an AEL.

IHAs Pre-1975

PHAs and IHAs in existence in 1975 used their actual FY 1975 budget as their AEL if it fell within a range of costs predicted by a regression equation, as described above. This model was based on data from about 60 PHAs, and predicted costs based on building age, building height, average number of bedrooms per unit, geographic region, and service area population size. The range was in effect a confidence interval around a predicted cost. Most PHAs fell within the range and so used their actual budget costs. PHAs and IHAs that had costs that exceeded the range used the maximum value for the range as their AEL.

IHAs and Tribes Post-1975

IHAs added to the system after 1975 used the AEL of a comparable PHA or IHA as their AEL. To establish an AEL based upon a newly formed PHA or IHA was laborious. Rather than taking this approach, HUD field offices were advised to find a comparable PHA or IHA, specifically one of similar size, with similar project characteristics and age, within the local geographical area and with an existing AEL. IHAs worked with the field offices to determine the AEL. The field office would be involved in identifying comparable IHAs and determining whether a proposed comparable HA was reasonable. This expense number was to be appropriately adjusted and become the AEL for the new entity. Invariably, the existing AEL for Indian Country would come from a PHA, not an IHA. Thus, this probably well-intended process excluded Indian Country experience, first in the design of operating subsidies, and second in the implementation.

The regulations governing the establishment of AELs for the Indian housing program were set forth at 24 CFR 950.[26] AEL was defined in §950.102 as follows:

> Allowable expense level. In rental projects, the per-unit per month dollar amount of expenses (excluding utilities and expenses allowed under Sec. 950.720) computed in accordance with Sec. 950.710 which is used to compute the amount of operating subsidy.

[26] All citations to 24 CFR 950 are taken from Part 24, CFR effective April 1, 1997.

Subpart J of the regulations set forth the standards and policies for the distribution of subsidy for the operation of IHA-owned rental housing. 24 CFR 950.701(a) (2) established:

> …standards for the cost of providing comparable services as determined in accordance with a formula representing the operations of a prototype well managed project, taking into account the character and location of the project and the characteristics of the families served.

To this point we have determined that the AEL was intended to provide a sufficient funding level to support comparable services within Indian rental housing programs while taking into consideration the character of the project, its location, and the nature of the population being served. With this understanding of what the AEL was and its purpose, the next step is to examine how it was to be calculated.

An IHA's initial introduction to the AEL would occur relatively late in the development process of its first rental housing project. With the completion of the development phase, established by the DOFA of the units for occupancy, the IHA was poised to move into the management phase of its rental program. As a subsidized program, the IHA was not expected to cover all project management costs through rental income. Rather, operating subsidy would be provided to support these costs and the amount of that subsidy was contingent upon establishing an AEL for the IHA.

With no previous experience in managing a rental project, the IHA would not have any operating cost data of its own upon which to base an AEL. The need for subsidy precluded waiting until such data might be available. The solution to this issue was set forth at 24 CFR 950.710(d) (3):

> The AEL for the first budget year under PFS for a "new project" will be based on the AEL for a comparable project, as determined by the HUD Area ONAP. The IHA may suggest a project or projects it believes to be comparable.

This regulation effectively made HUD responsible for selecting a comparable project upon which to base an AEL for an IHA entering the management phase of its rental program. Although IHAs could have had input in developing their AEL, most probably lacked the data and experience to do so and by default left the task to HUD. In any event, the regulation only allows the IHA to suggest and HUD to determine. Once established, the revision of an AEL was difficult. Procedures for revision were set forth at 24 CFR 950.730(f) but few IHAs successfully made a challenge to their AELs once they had been established. AEL values did not remain entirely constant, but were increased annually by 0.5 percent. This annual increase did not allow IHAs to keep up with rising costs. For example, the U.S. Department of Labor Consumer Price Index for housing increased by 83 percent between 1980 and 1996, while the annual 0.5 percent increase would have provided only 8.3 percent more funds.

Tribes Without an AEL

Approximately 50 tribes with FCAS have no AEL. There appear to be several reasons that these tribes are missing this piece of formula data. AEL was a component of the PFS and was used in funding LR projects, but not MH projects. Some tribes participated only in the MH program and therefore they did not need an AEL value in 1996. Some tribes were originally part of a multi-tribe IHA, and, in some cases, it appears that not all of these tribes were assigned the IHA value of AEL in the 1996 data, perhaps because they had no LR units at that time. Some tribes did not complete their first unit before 1996, which apparently resulted in their not having an AEL value for IHBG data. In the NAHASDA period, it is HUD practice to assign an AEL based on comparable areas to tribes lacking an AEL when they have LR units that reach their DOFA.

Case Study of AEL Selection

Since the AEL plays a role in determining the level of funding a grant recipient receives under the IHBG program, confidence in its accuracy by both the ONAP and the IHBG participants is crucial, especially in the age of self-determination and negotiated rulemaking. There are voices within Indian Country who believe that the AEL is not a fair representation of actual IHA operating costs for rental housing because it is based upon faulty data which initially reflected public housing operating costs, not Indian housing costs. A corollary to this position is that AEL levels for comparable IHAs are not always comparable, resulting in inequities.

As reviewed above, tribes were assigned AELs during different periods, as their units started to be developed. In practice, this staggered assignment of AELs led to some inconsistencies, in which neighboring tribes had vastly different AELs. The case study outlined here illustrates this situation. This analysis is not intended to determine whether a particular AEL is too high or too low. It only illustrates that a system intended to provide similar results, when “taking into account the character and location of the project and the characteristics of the families served,” did not always produce the anticipated result.

This case study also does not attempt to identify all instances where such anomalies are present and cannot estimate how many such occurrences there have been. What it does illustrate, however, are reasons why some TDHEs and tribes maintain that the AELs are inaccurate and that their continued use contributes to a lack of equity and fairness in the allocation of subsidy within the IHBG program for the continued operation and maintenance of 1937 Act units.

In 1983 Tribe A completed its first rental project. As the IHA was about to embark upon management activities, it would have had to submit a first operating budget to ONAP (Office of Indian Programs at that date) for approval. Part of that process would have included establishing an AEL based upon a comparable project. The following table details potentially comparable IHAs/projects in existence in the same State when the AEL for Tribe A was established.

Table 4-1 shows that the match between Tribe A and Tribe B is as close to a comparable project match likely to be found in the Indian Housing program at that time. However, as Table 4-2 illustrates, the AELs for these two IHAs are quite dissimilar based on FY 2005 data. The FMR for four out of the five tribes are the same; the FMR represents the market cost of rental housing.

Indian Housing Authority	*Miles from Tribe A*	*DOFA 1st Rental Project*	*Rental Projects*	*Stock Units*
Tribe A	N/A	3/31/83	1	48
Tribe B	30	9/30/82	1	23
Tribe C	200+	12/1/72	3	128
Tribe D	200+	10/1/70	1	15
Tribe E	200+	5/1/67	2	34

Table 4-1: Comparison of Tribes
Source: All data for this and subsequent tables taken from FY 2005 IHBG estimate.

The AEL determined for Tribe A is 123 percent of the Tribe B AEL and in fact the highest of all the IHAs reported here. The greatest differential is between Tribe A ($238) and Tribe C ($161), a difference of $77 per unit per month.

The disparity between the Tribe A and Tribe B AELs was the result of the selection of an existing AEL from a housing authority other than those reviewed here. Perhaps Tribe A's AEL was based upon a non-Indian AEL. At the time the AEL was developed, there was already a local housing authority in operation and it could have been selected as the comparable entity.

Indian Housing Authority	*Allowable Expense Level*	*Fair Market Rent*
Tribe A	**238**	**446**
Tribe B	**194**	**446**
Tribe C	**161**	**446**
Tribe D	**180**	**446**
Tribe E	**188**	**488**

Table 4-2: Comparison of AELs

The way in which Tribe A's AEL was determined is less important that the impact it had on managing Indian rental housing prior to NAHASDA. For each unit managed, Tribe A would have an additional $44 a month or $528 a year more than Tribe B. For 20 units, this would amount to $10,560 more in the budget of Tribe A per unit compared to Tribe B. This difference could have a significant impact on the quality of the housing programs provided

by these two IHAs to their program participants, or the ease with which they were able to operate programs of similar quality.

In the case of Tribe C the disparity is even greater: $77 a month or $924 per year per unit. For 20 units, this would amount to an additional $18,480 available annually to Tribe A. This becomes particularly relevant because Tribe A and Tribe C both have jurisdiction in the same city and both operate 1937 Act housing units there. So, within the same geographical and economic locality, the difference in available operating funds is substantial and could impact significantly upon program services.

Location Factors in the IHBG Formula

The three location factors in the IHBG formula—AEL, FMR, and TDC—are used to adjust the national per unit base funding amounts to reflect local variations in cost. In effect, they customize the amount of per unit funding each tribe receives. AEL and FMR are used to adjust the base amount allocated for operating units, while TDC is used to adjust the base amount allocated for modernization. It should be noted that the data for each of these location factors were originally developed for other purposes. AEL, as described above, was developed to reflect estimated operating cost for PHAs and functioned as an upper limit on funding. FMR is a measure of the market cost of housing and is used by HUD to set maximum subsidy amounts and identify eligible rental units. TDC is calculated by ONAP to establish an upper limit on eligible development costs for new housing units.

This use of available data is an efficient way to reflect approximate costs. However, these adjustment factors, like any, cannot reflect variations in operating cost and modernization cost affected by location alone. It is a truism to say that no measure perfectly achieves the measurement goal. It is more relevant and useful to identify the aspects that are different from the ideal measure, to evaluate which divergences from the ideal measure are acceptable or unacceptable, and to choose the best measure from available options.

AEL

With the implementation of NAHASDA, the AEL was no longer a direct determinant of the national funding available for Indian housing. However, AEL was introduced as a factor that could account for location in the allocation of IHBG funds. In the formula, the total operating subsidy is the number of units in each program times the national base amount from 1996 for each program, adjusted for inflation. This amount is allocated using the local area cost adjustment factor: the AELFMR. Figure 4-1 shows the distribution of AEL values at average county levels.[27] There are patterns worth noting. First, average AEL values are low in the Great Plains and southeastern States. Second, the most remote areas of Alaska have the highest AELs. Remote locations in HUD's Southwest have generally high average AEL values, while in remote locations in HUD's Northern Plains and Southern Plains regions they

[27] If more than one tribe has a county in its formula area, the map shows the average value of AEL for that county.

are generally low. Remote areas in the Eastern Woodlands and Northwest regions have average AEL values in the middle of the range.

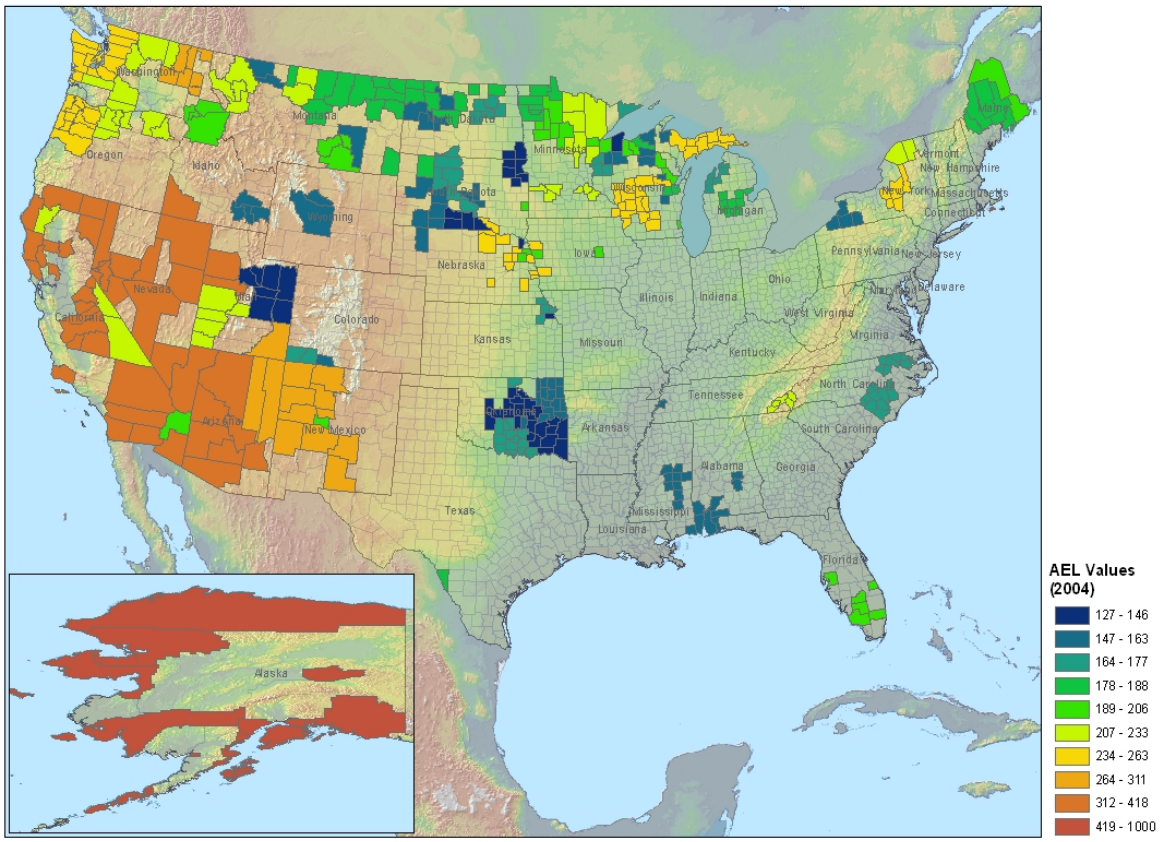

Figure 4-1: County Average Allowable Expense Levels, FY 2004

Fair Market Rent

FMR levels are developed by HUD annually for use in a number of programs. FMR is based on Census rent data and updated using regional rent change factors to measure year-to-year increases in housing costs. FMR represents in most areas the amount at which 40 percent of area rental housing costs are at that level or below. It is the amount needed to pay rent and utilities of privately owned decent, safe, sanitary, non-luxury housing units. It is calculated separately for each bedroom count. The IHBG formula uses the two-bedroom FMR.

Figure 4-2 shows the national distribution of FMR. While FMR reflects the cost of housing paid by residents, rather than the cost of operating housing units, in economic theory these should be the same as long as the supply of housing is not constrained by land shortages, restrictions, or other factors. In practice, since these supply constraints often exist and because housing demand is uncertain, FMR is likely to reflect local housing market conditions as well as operating costs. In the eastern half of the country there is a pattern of higher FMRs in urban areas and lower FMR values in rural areas. Individual metropolitan areas such as Atlanta, Minneapolis/St. Paul, and Detroit are easily identified, while States are

less obvious. In the western half of the country metropolitan areas are still identifiable, but State boundaries are also identifiable. This seems to be the result of counties in western States often having large counties without any Metropolitan Statistical Area, the primary basis for FMR values.

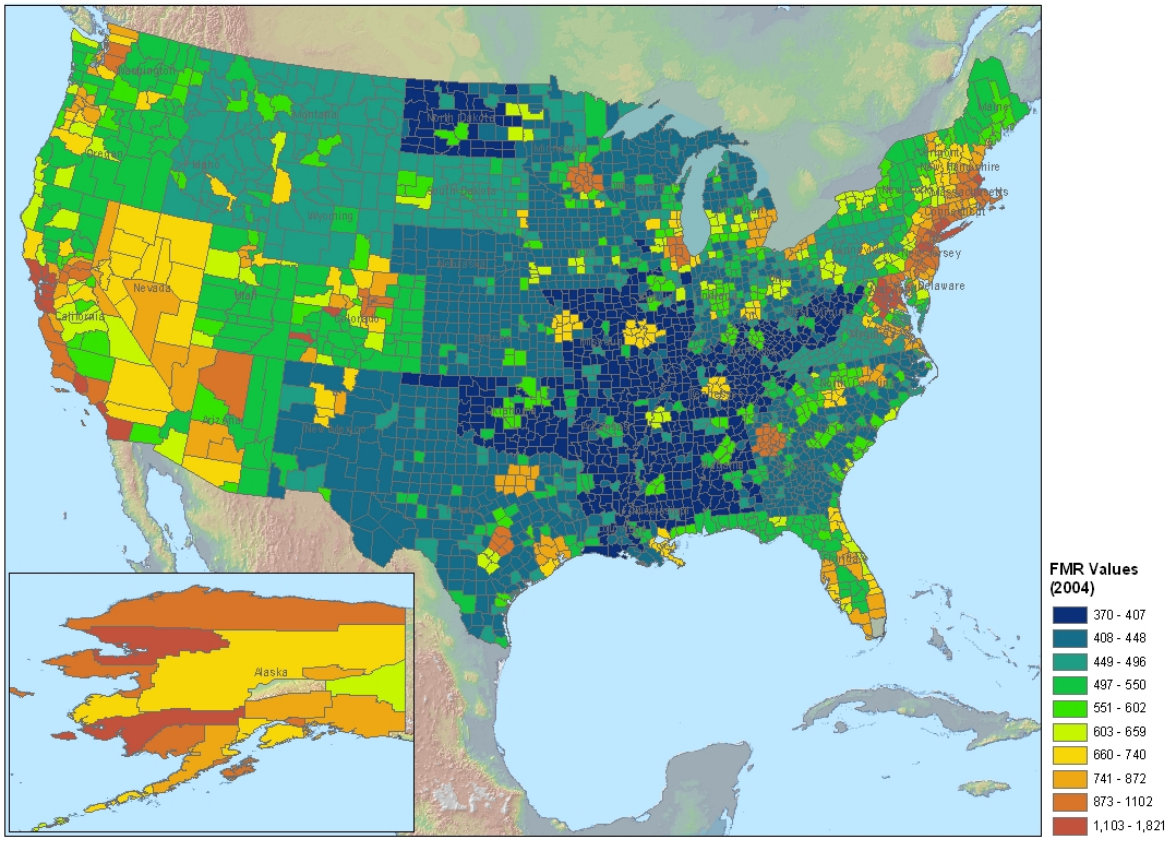

Figure 4-2: 2-Bedroom Fair Market Rent by County, FY 2004

Total Development Cost

TDC limits are used in the IHBG formula to create a location factor for distribution of modernization costs. TDC values are the average construction cost data from two nationally respected sources, RS Means and Marshall & Swift/Boekh. These construction cost data are adjusted by adding an additional 75 percent for site development. TDC limits are updated annually by ONAP. Alternative methods for the determination of TDC were recently studied.[28] That study concluded that the current method was the best choice for setting TDC limits. These data do not represent the breadth of activities in operating existing housing, and so while TDC is used as a location factor in adjusting modernization allocations, it would not be an ideal basis for adjusting operating costs alone. Figure 4-3 shows TDC by county. This figure shows a pattern of low TDC values in the Southern Plains region and in the

[28] Steven Winter Associates, Inc. *Evaluation of Alternative Total Development Cost Determination Methods*, Final Report, August 2006.

southeastern States. The west coast and Alaska are generally shown as the highest areas of construction cost.

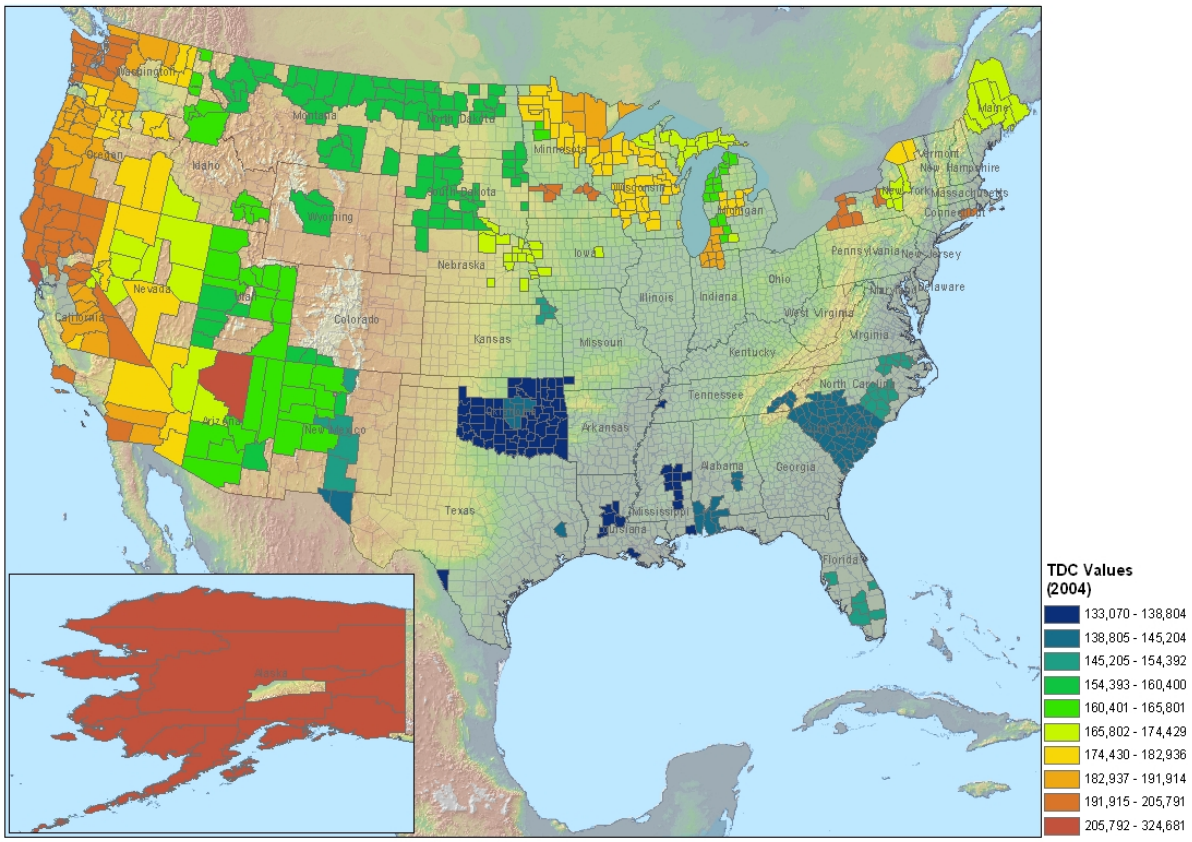

Figure 4-3: Total Development Costs by County, FY 2004

Formula Indices

Figures 4-1, 4-2, and 4-3 show the distribution of the values for the three location variables, rather than the indices used in the IHBG formula. Each index is based upon the relationship between the tribal value and the weighted average of all tribal values, so that an index of 1.0 represents a tribe that has an AEL or FMR that exactly equals the weighted national average. Such a tribe would receive per unit funding equal to the inflation-adjusted national base amount. An index number of 1.5 would result in funding that was 1.5 times, or 150 percent of, the tribe's national base amount, while an index of 0.8 would result in per unit funding equal to 80 percent of the tribe's national base amount.

The FY 2004 IHBG data shows that 218 tribes were assigned AEL values and that all tribes were assigned FMR values.[29] The index that is actually used in calculating the IHBG allocation is neither the AEL index nor the FMR index, but a composite value: the AELFMR index. This composite uses the larger index for each tribe and then adjusts to a common base.

[29] FY 2004 is used to allow some consistency with the operating costs that were collected in the study. These costs were for the period FY 2002 – 2004.

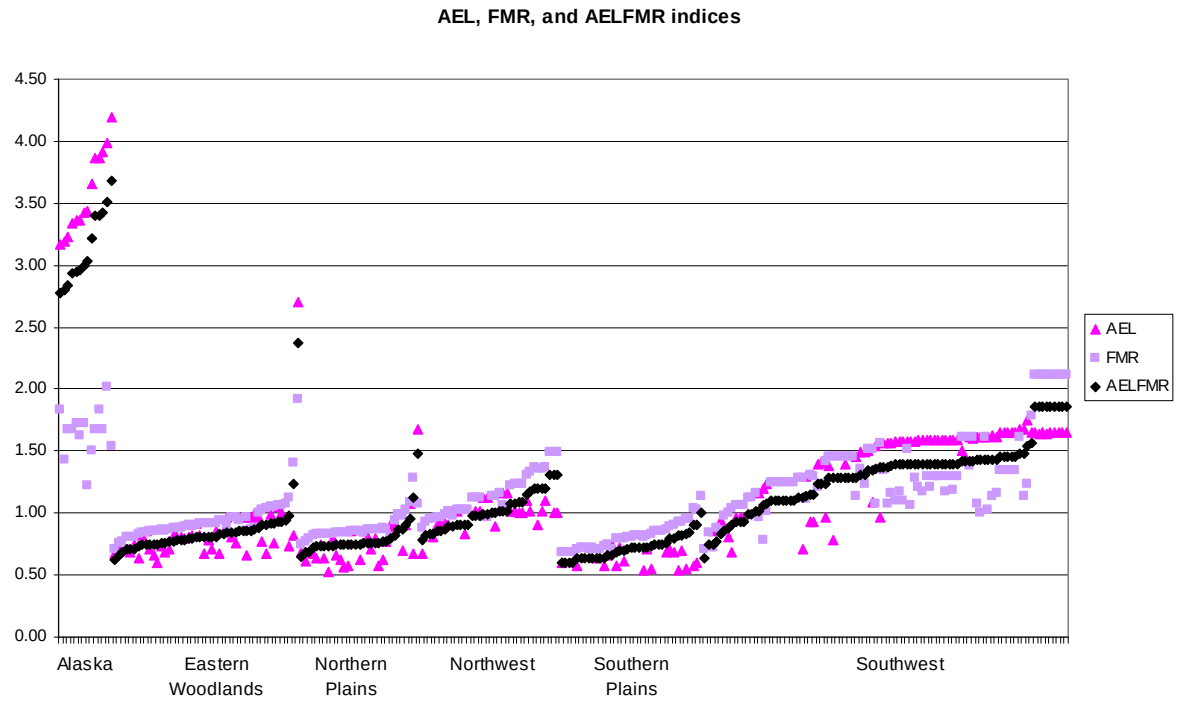

Figure 4-4: Values of AEL, FMR, and AELFMR Indices, FY 2004, By Region

As the previous section described, in the IHBG formula AEL and FMR factors, or indices, are generated by dividing AEL and FMR by their national weighted averages. The higher of these two indices for each tribe is applied in the AELFMR factor, which is the AELFMR divided by the national average AELFMR (NAAELFMR), to determine per unit funding. Figure 4-4 shows the values, sorted by ONAP region, for three location factors in the IHBG formula: the AEL factor, the FMR factor, and the combination AELFMR factor. In this figure, the AELFMR factor can be seen as between the other two. Combining the two factors moderates the differences between tribes. These data also show that 70 percent of tribes have an AELFMR index that is based upon the FMR index. AEL values were used as a basis for the AELFMR index by 78 tribes in FY 2004. The relatively small number of tribes using AEL values is partly due to the fact that tribes that lack AEL values must use the FMR value.

Despite the moderating effect of using two indices, Figure 4-4 shows that there is considerable variation across all tribes/TDHEs. In order to see the effect of the AELFMR index more clearly, Figure 4-5 shows the AELFMR value for each tribe divided by the smallest value. Thus the range of multipliers is shown on the Y-axis. The range within Eastern/Woodlands, Northern Plains, and Southern Plains is similar going from 1 to about 2. The range of multipliers within the Southwest and Northwest regions approaches 3. The range within the Alaska region begins near 4 and extends to 6. This shows that within regions, AEL values are relatively clustered.

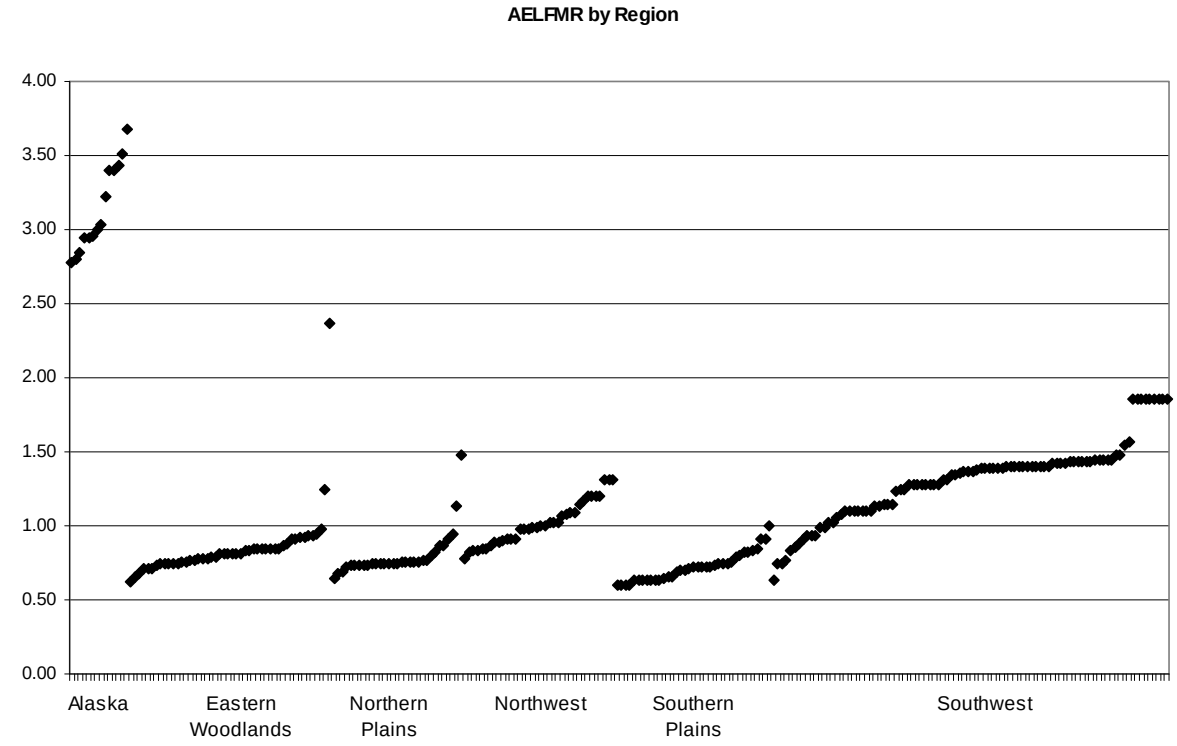

Figure 4-5: Range of AELFMR by ONAP Region, FY 2004

Key Points

AEL values originated as a key component of PHA funding. They acted as the estimated cost of operating rental units, tying HA characteristics to operating costs.

AEL is no longer used in funding PHA operating costs. The new funding amount, the PEL, bases funding on project characteristics using a model based on FHA data.

The method of assigning an AEL to a tribe varied depending on the type and timing of housing development. Before 1975, tribes would use their actual operating costs as AEL if eligible (i.e., within the range of operating cost estimated by the AEL equation). After that, a tribe's AEL was selected from a PHA or IHA that was deemed comparable.

Some tribes do not have an AEL. Tribes that never operated LR units may not have an AEL, in addition to tribes that developed their first LR units after NAHASDA was implemented. Tribes may also lack an AEL if their units used to be operated by an umbrella HA but no longer are.

These historical quirks mean that comparable neighboring tribes may have very different AELs, or one may lack an AEL while its neighbor has one. In some cases, neighboring tribes with comparable housing units may receive vastly different per unit funding.

The location indices used in the IHBG formula—AEL, FMR, and TDC—use data that were developed for other purposes, and provide an efficient way to adjust the formula funding. Like any indicator or measure, they do not perfectly reflect the intended purpose.

V. Indian Housing Operating Costs

As described in the introduction, the Indian Housing Operating Cost Study was commissioned to develop an understanding of the availability and nature of specific measures of the operating costs of LR and MH units developed under the 1937 Act. Following the release of the Public Housing Operating Cost Study report that led to changes in PHA funding, many Indian housing operators and advocates raised concerns about the continued use of PHA-based cost levels to determine Indian housing funding allocations. A primary purpose of the IHOC study was to investigate the costs of operating well-run affordable housing programs in Indian Country and Alaska.

Prior to the study, the lack of information on the costs of operating 1937 Act Indian housing programs was identified by HUD staff as a gap in general knowledge of Indian housing. This study, therefore, was also charged with establishing the costs of operating 1937 Act Indian housing.

The first part of this chapter discusses the data collected on the costs of operating 1937 Act units. Data for various cost categories are separated by program and by region to identify any differences in cost patterns. The second section of this chapter discusses factors affecting housing costs. The discussion of operating cost data is continued in Chapter VI which contains an overview of the research findings related to the collection and use of Indian housing operating cost data, and discusses issues related to the use of these data in the IHBG formula.

Cost Data Findings

This section presents information on operating costs gathered from tribes and TDHEs. These results represent the set of 54 tribes/TDHEs submitting operating cost data that we were able to put in standardized format, enabling aggregation and analysis. Gathering data on Indian housing operating costs proved to be a difficult task. The voluntary nature of tribe/TDHE participation affected the initial response and submission of operating cost data, and standardizing these initial submissions into a format suitable for analysis was not possible in many cases, as described later in this chapter.

Following the passage of NAHASDA, tribes have determined their own level of spending on continued operation of units funded under the 1937 Act. The operating cost data collected through the IHOC Study provide the first details on their spending patterns on LR and MH units since then. The data show how spending on LR units differs from MH units; they also suggests some regional patterns, when broken down by cost category. Table 5-1 shows the number of initial responses and finalized data sets by region and program.

Table 5-1: Study Data by Region

Region	Tribes/TDHEs Submitting Any Information	Complete Data Sets		
		Total	Low Rent	Mutual Help
Alaska	10	9	9	9
Eastern/ Woodlands	27	11	11	8
Northern Plains	10	7	7	6
Northwest	6	3	3	3
Southern Plains	17	9	7	7
Southwest	29*	15**	13	13
Total	99***	54	50	46

* The 29 data sets submitted in the Southwest region represent 36 tribes

** The 15 complete data sets in the Southwest represent 22 tribes

*** Representing 106 tribes

Of the 257 tribes currently operating 1937 Act housing units and participating in IHBG, 108 submitted data or otherwise cooperated with the study, for example through a site visit. The final data set of 54 operating cost statements, which includes 50 data sets for LR units and 46 data sets for MH units, represents 61 tribes.[30] This group of tribes/TDHEs includes ones with both small and large numbers of 1937 Act housing stock. Some operate only LR units or MH units, although most operate units under both of these programs. Some are located close to urban areas while others are located at a greater distance from urban markets. Some are geographically compact, with all units located in a single small subdivision, while others operate physically dispersed units. They represent all six HUD regions. This mix ensures that tribes/TDHEs in different locations and situations are represented.

Total Operating Costs

Total operating costs consists of administrative costs, maintenance, tenant services, utilities, and general costs. In addition, continued support of 1937 Act units includes modernization costs, which in some definitions could be included as an operating cost since they are necessary for the continued operation of the housing, even though they may represent periodic costs. Figure 5-1 shows the average amount spent in each operating cost category, as well as modernization, for the LR and MH programs. The average per unit annual cost on LR units during the period 2002 to 2004 was $7,818, while for MH units it was $3,687. With modernization, the annual average operating cost of LR units is $9,021; for MH units the

[30] Some data sets represent more than one tribe because they were submitted by an umbrella TDHE that keeps a major part of its accounts aggregated. Umbrella TDHEs operate units for two or more tribes. The format of financial reports submitted by umbrella TDHEs for this study varied—in some cases separate financial reports for each tribe were submitted, while in others a single financial report for the umbrella agency was sent in. For this study, financial data for tribes was separated if the accounts provided sufficient detail.

total with modernization costs is $5,137. The figure shows that costs for administration and for maintenance make up the highest share of LR expenses, and that general costs, utilities, and modernization expenses are about the same, with tenant services costs slightly lower. For both LR and MH units, administrative costs and maintenance costs total about three quarters of total operating costs, a combined 73 percent and 76 percent respectively.

The costs of operating LR units are led by maintenance costs, which average $2,912, representing 37 percent of operating costs, and administrative costs, averaging $2,829 per unit annually, or 36 percent of operating costs. Utilities are the next highest average expense, costing $927 annually or 12 percent of LR operating costs. Tenant services and general expenses account for an additional $562 and $587 per unit annually. Modernization costs account for a significant amount on top of these operating costs, adding another $1,203 annually per unit.

For MH units, administration costs, which average $1,867, account for half of operating costs. Tenant services have the next highest level of costs, $930 or 25 percent, followed by general costs, modernization, and maintenance, all at about the same level. Utilities costs, averaging $136 per unit annually, are a relatively minor expense that does not show up in the MH figure. In the following sections, each of the cost categories will be discussed in more detail, along with any regional differences displayed by the data. Modernization costs, with an average annual per unit cost of $1,450, add a major expense to MH unit operation, increasing costs by 39 percent.

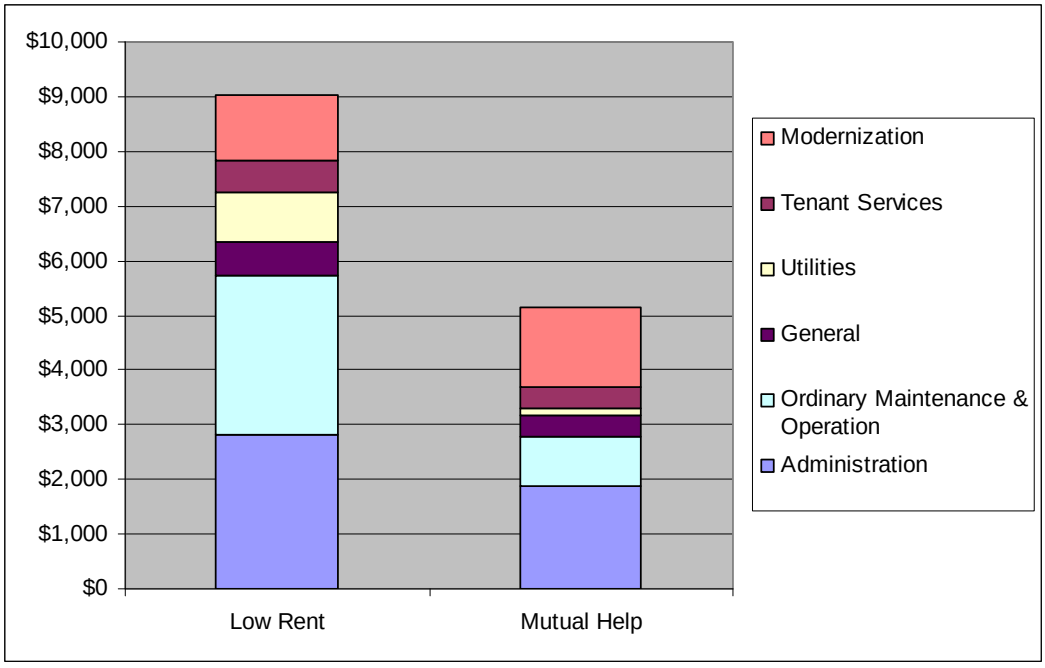

Figure 5-1: Summary of Per Unit Operating Costs by Program

Figure 5-2 shows total operating costs by region. There are clear differences in operating costs in different regions, particularly when looking at different types of tribal/TDHE activity. These differences suggest that regional conditions influence spending. Possible regional characteristics affecting spending include climatic differences, other geographic characteristics such as size of reservation or distance from major cities, the influence of area offices, and historical regional approaches to housing provision.

All costs shown in this section are per unit annual costs. In this and subsequent figures showing costs by region, median operating costs are used in place of average costs. Medians are used in this analysis because sample sizes are small at the regional level. Medians are less dependent than averages on end values of the range, and so less subject to possible distortion from extreme values. It must be noted that regional patterns should be considered suggestive rather than conclusive, due to the relatively small numbers of responses when divided into regions. This is especially true of the Northwest region, since its limited number of completed data responses (three) may reflect patterns of those tribes rather than of the region as a whole. However, for many aspects of operating costs, clear patterns emerge that can provide us greater understanding of operating costs in Indian Country, and how they vary by region and program.

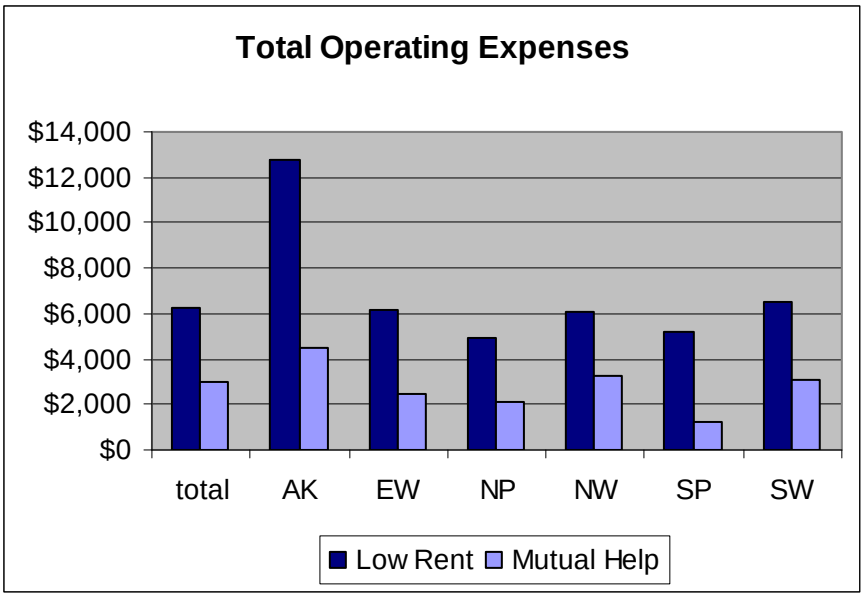

Figure 5-2: Median Total Operating Costs Per Unit by Program and Region

As Figure 5-2 shows, median operating costs for LR units exhibit a two-tier pattern, with five out of six regions having relatively similar costs, and Alaska having much higher costs. The median LR total operating cost (excluding modernization) of Alaska, $13,358, is far higher than that of other regions, totaling nearly twice the nearest regional median, Southwest with $6,491. Alaska's LR median is 2.7 times the lowest regional LR median, $4,903. The five other regions have medians that are relatively clustered, with the highest only 32 percent higher than the lowest.

MH operating costs do not show the same pattern. While overall, the MH operating costs show greater variation between regions, Alaska's operating costs do not stand out as distinctly higher than the other regions. However, the difference between the highest and lowest costs regions is wider: Alaska's median MH cost is 3.6 times higher than that of the lowest cost region, Southern Plains.

The greater amount of variation in MH program costs is likely due to the lower level of services required by that program. At a minimum, once the MH units are leased, a tribe or TDHE need only conduct limited administrative tasks for those units. Tribes and TDHEs may choose to leave all responsibility for maintaining, heating, and cooling the units to the residents, and may not provide any services. However, all of these services and supportive activities may be provided to the MH residents if the tribe/TDHE chooses to as part of their program policies. The minimum level of support supplied to LR units is automatically higher, since the units are owned by the tribe/TDHE, requiring maintenance as well as periodic certification and inspections.

These differences in comparative expenditures become even more apparent in the following discussion of individual cost categories, with greater differences seen in costs both between and within regions for the MH program. Regional differences in particular types of spending are more pronounced for some categories of costs.

Administration

Administrative costs include all the general costs of running the housing authority or department as well as specific unit management costs. Administrative costs include salaries, legal expenses, accounting and audit costs, training and travel for administrative personnel, and unit management costs. Unit management includes activities such as periodic inspections, move-in and move-out inspections, periodic recertification of income and family composition, orientations for tenants and homebuyers, monitoring of lease compliance, and following up on lease violations. These activities are often classified as Housing Management Services on the Annual Performance Report. Most of these administrative activities apply only to LR units, so LR costs are expected to be higher for these units.

Figure 5-3 shows that administrative costs are higher for LR units than for MH units, as expected. For all tribes/TDHEs, the median administrative cost for LR units is $2,509, compared to a median administrative cost for MH units of $1,434. For LR programs, administrative costs range from $1,539 in the Southern Plains region to $3,288 in the Northwest.

For MH programs a different pattern is shown. Alaska has the highest MH median administrative cost, $2,536, followed by the Southwest, with $2,116. The difference between the highest and lowest regional median cost is more pronounced for MH units, with Alaska's operating cost around four times that of the lowest cost area Southern Plains, with median annual administrative cost for MH units of $659.

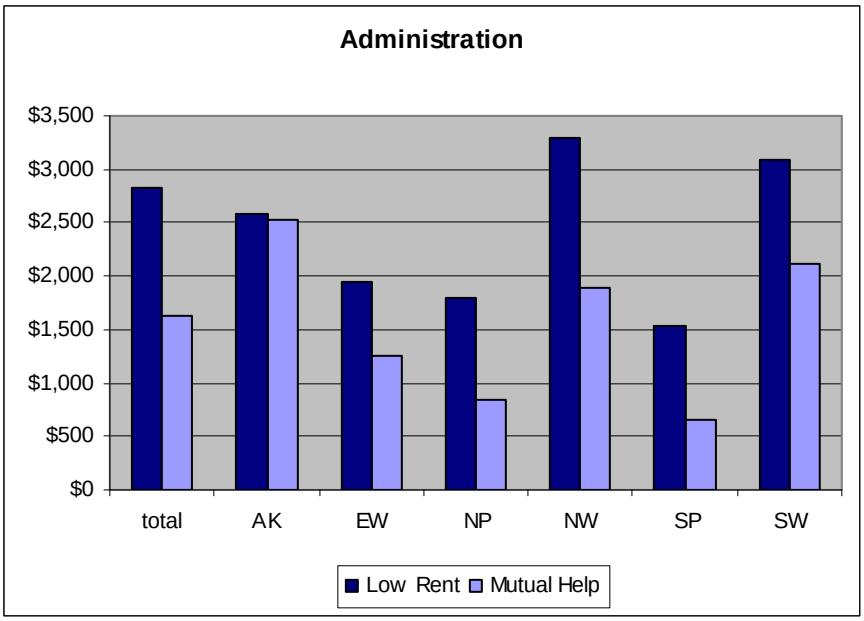

Figure 5-3: Median Administrative Costs Per Unit by Program and Region

Maintenance

Maintenance activities keep housing units in usable condition. In addition to routine repair and maintenance tasks, this category includes routine services such as snow removal and garbage collection. Maintenance costs show large program differences, as shown in Figure 5-4. Maintenance costs represent a large share of LR costs overall, but figure smaller in the costs of operating MH units. The median cost of maintenance activities is $1,996 for LR units, compared with only $271 for MH units. Tribes and TDHEs must maintain LR units since they continue to own them. Maintenance of MH units, as indicated previously, is not a program requirement, and many tribes and TDHEs consider it to be a homeowner responsibility. Accordingly, expenditures on MH units are much lower, and a few tribes do not have any maintenance costs for MH units.

For LR units, Alaska has the highest maintenance costs, with a median of around 2.5 times those of most other regions, followed by the Eastern/Woodlands region. The other four regions have similar annual per unit costs falling between $1,500 and $2,000. MH median maintenance costs are much lower than LR costs, ranging from a low of $62 in the Southern Plains region to a high of $547 in Eastern/Woodlands.

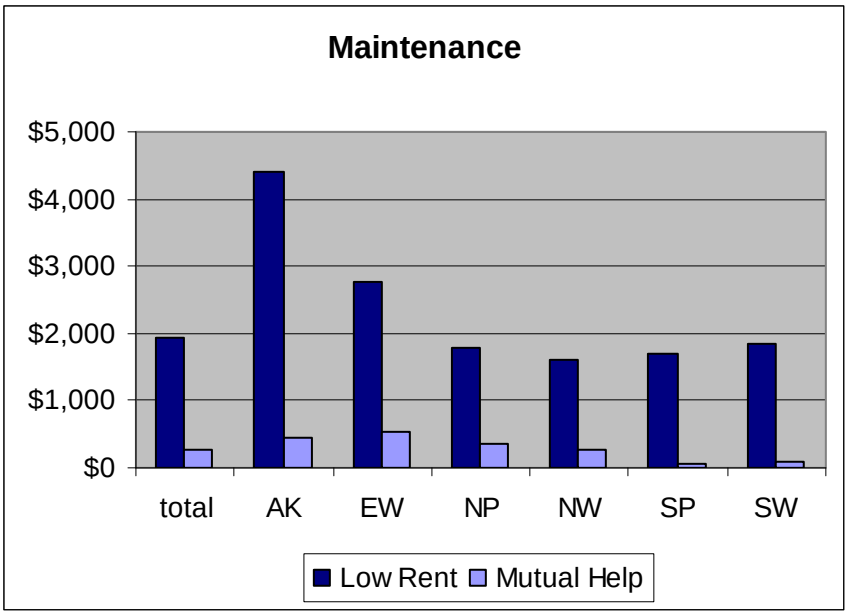

Figure 5-4: Median Maintenance Costs Per Unit by Program and Region

General Costs

General costs include insurance, taxes, payments in lieu of taxes, other payments including payments to tribes, and protective services. Although general costs make up a relatively small share of operating costs, it is clear that these costs, particularly insurance, are an essential part of operating 1937 Act units. They are relatively consistent across regions and programs. Even the difference between LR and MH costs is relatively minor, as Figure 5-5 shows. For all tribes, the median amount spent on these costs for LR units is $460, while the median cost is $290 for MH units. The relative consistency of this category stems from the insurance component of these costs. All tribes/TDHEs report insurance costs, and they make up a substantial part of general costs in most cases. Insurance costs are fairly consistent because a majority of tribes obtain low cost insurance from Amerind, the risk management group founded by the National American Indian Housing Council (NAIHC).

Some variation in general costs does occur between regions, because some costs, such as protective services, payments in lieu of taxes, and payments to tribes, are more common or more substantial in some regions than others. For example, 71 percent of reporting Southern Plains tribes/TDHEs report per unit protective services costs of over $100 for LR units, compared to 8 percent in the Southwest. A majority of tribes in the Northwest and the Eastern/Woodlands regions also report protective services costs. In two of these regions, Southern Plains and Eastern/Woodlands, tribes report that protective services account for a substantial share—over 6 percent—of their total operating costs..

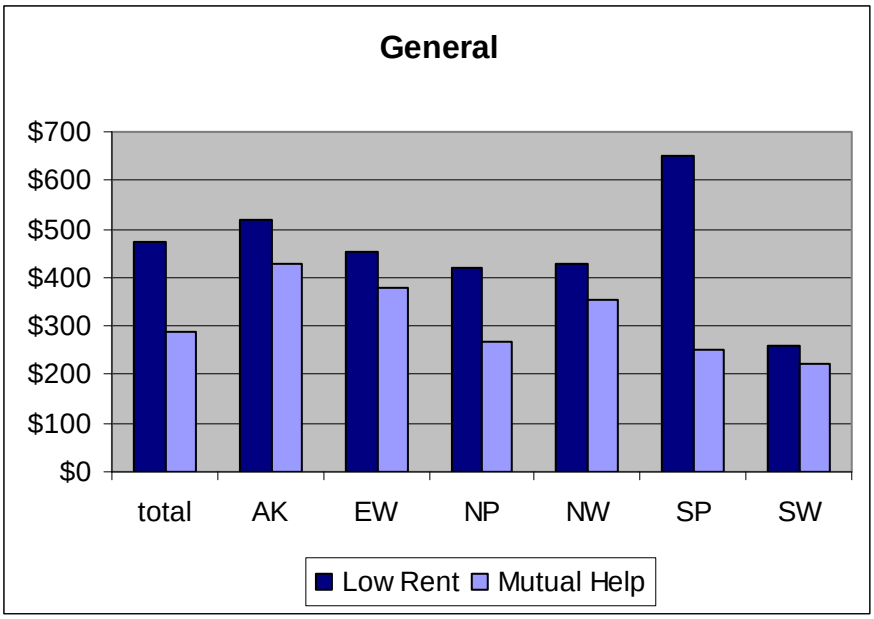

Figure 5-5: Median General Costs Per Unit by Program and Region

Tenant Services

Tenant services refers to activities other than shelter that the tribe/TDHE provides to residents. Tenant services for 1937 Act residents may include employment assistance, youth and community programs, homeownership counseling, and drug abuse prevention, among others. Figure 5-6 shows the diversity of median tenant services costs between regions. Overall, the median amount spent on tenant services is $251 for LR and $174 for MH units. Figure 5-6 also shows that unlike maintenance costs, tenant services vary widely for both LR and MH programs. Tenant services costs are particularly high in Alaska for both programs. LR expenses are higher than MH expenses except in the Eastern/Woodlands and Northern Plains regions.

Not all tribes/TDHEs report activities in tenant services. A considerable number—40 percent of reporting tribes with LR units and 46 percent of tribes with MH units—reported costs of under $100 per unit per year. Nearly one-third of programs reporting on MH programs reported zero, or nearly zero, costs. This disparity indicates that while for some tribes, tenant services may be considered a key part of their housing program, for others, tenant services are not considered central. These services may be seen as unnecessary or may be provided by other organizations. In some cases, tenant services may be considered an administrative cost. Tenant services costs may also be low simply because the funds are spent on higher local priorities.

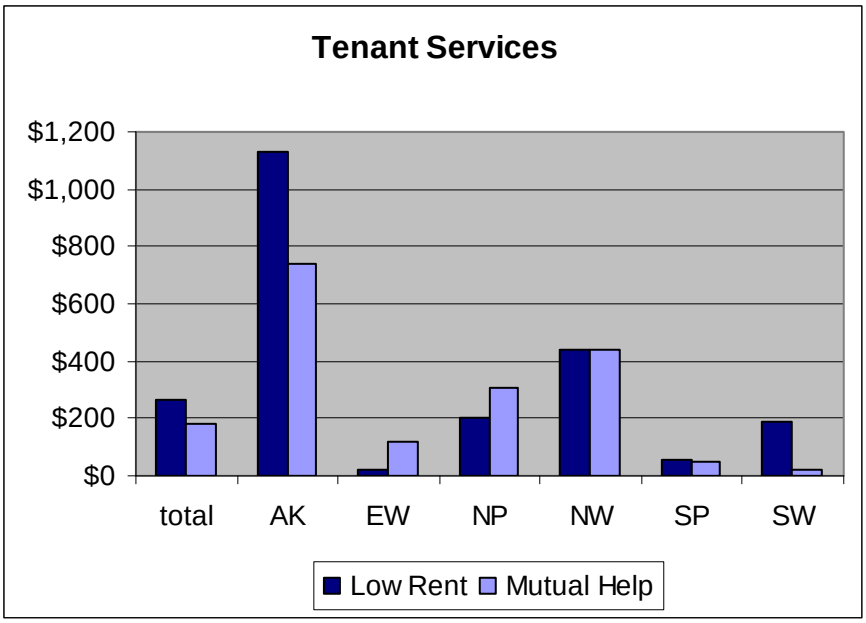

Figure 5-6: Median Tenant Services Costs Per Unit by Program and Region

Utilities

Utilities costs include electricity, water, gas, and other heating and cooling costs that a tribe/TDHE pays for directly, either for resident units or for buildings used in the operating of these units, as well as streetlights. Figure 5-7 shows that with the exception of the Alaska region, data on utilities costs exhibit similar patterns across most regions, in that many tribes/TDHEs report low costs in this category. This lower amount usually indicates that the only utilities costs are in support of the tribe/TDHE office, vacant units, or streetlights, as opposed to support for utilities in resident units. Note that these costs only reflect resident utilities paid directly by the tribe/TDHE; utilities allowances may be supplied to residents but these are subtracted from rent payments and do not show up as an operating cost. Utilities costs are much higher for LR programs, with an overall median cost of $449 per unit annually for LR units, much higher than the overall median for MH units of $36. This reflects that it is uncommon for utilities to be paid directly for MH residents.

Utility costs for LR units in Alaska are dramatically higher than in other regions. Median per unit utility costs for these units in Alaska are $2,983, and all tribes in this region have annual per unit costs over $1,500. In comparison, the median cost for other regions for LR units ranges from $136 to $553, and outside of Alaska, only two tribes have annual per unit costs over $1,500. In contrast, MH units in Alaska have median annual per unit costs of $20.

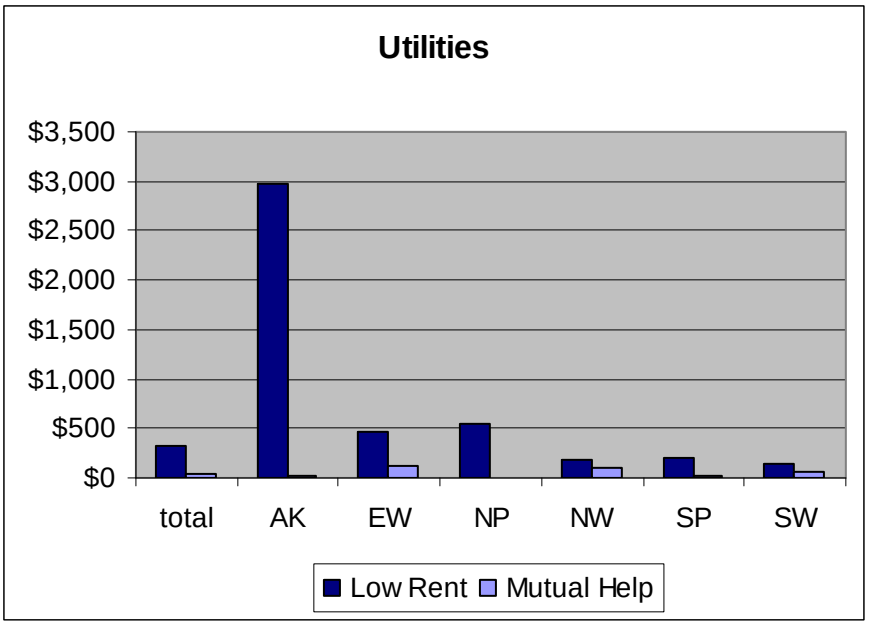

Figure 5-7: Median Utilities Costs Per Unit by Program and Region

Modernization

Modernization activities bring units up to date to meet current needs. Examples of these activities include replacement of roofs, windows, furnaces and appliances. They are non-routine, non-recurring expenses, and so have not historically been classed as operating costs by HUD. However, since modernization is frequently needed for the continued or long-term operation of units, a broader definition of operating costs could include these kinds of upgrades.

Timing issues—the amount of modernization carried out by tribes that coincided with the years of this study—probably explain much of the considerable variation in modernization expenses between tribes/TDHEs and regions. Twenty-six percent of the LR programs, and 33 percent of the MH programs, report no modernization costs. Figure 5-8 shows clear regional differences.

While some tribes/TDHEs treat modernization as ongoing tasks so that the same number of units is upgraded each year, evening out costs, others—particularly those with fewer units—undertake modernization as a single project carried out over a limited period of years. In these years, modernization costs would be especially high, but other years would show no modernization costs at all. Regional differences in modernization may therefore stem from timing difference rather than from any locational difference. For example, the Southwest has a median LR modernization cost of zero since over half of reporting tribes/TDHEs show zero costs, while in the Eastern/Woodlands and Northwest regions, 82 percent and 100 percent of tribes/TDHEs, respectively, report modernization costs.

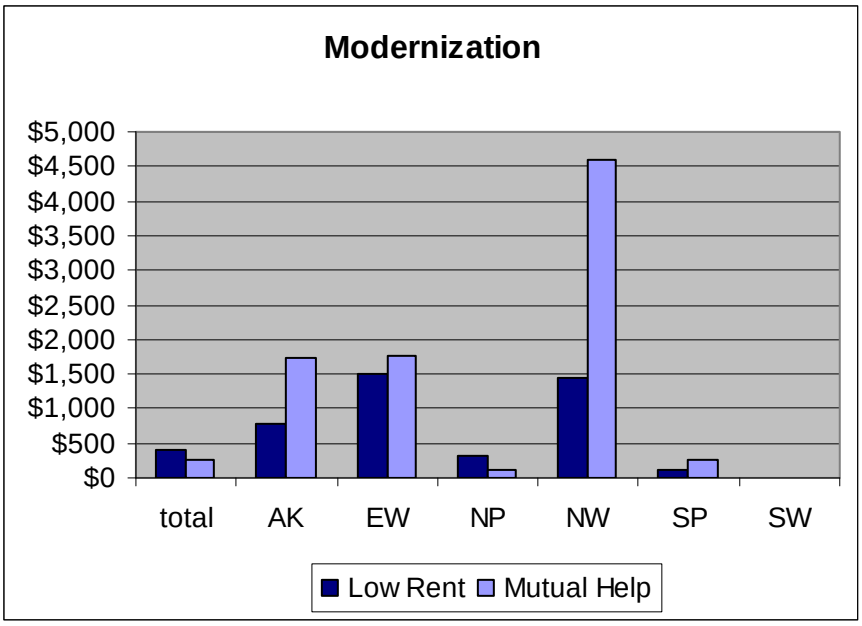

Figure 5-8: Median Modernization Costs Per Unit by Program and Region

Summary of Cost Results

The operating costs summarized here give a general picture of the expenses experienced by tribes/TDHEs. They show that not only do total operating costs vary tremendously, spending priorities also vary from tribe to tribe, with some regional patterns appearing. Some cost categories, such as administration, insurance, and maintenance for LR units, are relatively similar across regions, as they represent costs borne by all tribes. Other types of costs, including tenant services, protective services, maintenance for MH units, and utilities, exhibit greater variation. The differences in spending show that tribes/TDHEs assign spending priorities in line with their housing priorities.

While the data show some general patterns, they cannot offer a complete picture of all tribes for direct use in the IHBG formula as a replacement for the AEL. As expected, not all tribes offered their cost data for inclusion in the cost study. In addition, submitted data were often incomplete or inconsistent with a format that can be generalized. In the next section, these obstacles are outlined in more detail.

Possible Factors Affecting Costs

It is evident that cost data alone cannot reflect the factors that influence variation in the costs of operating Indian housing. Nor can any conclusion be reached about the degree of impact each possible factor has on cost. Throughout the study, conditions affecting operating costs were discussed with tribes and TDHEs. Table 5-2 includes many possible factors influencing costs. These factors are divided into three types: location, situation, and policy. Location factors relate specifically to where and how the housing units are located, such as the

distance from cities or transportation lines, how dispersed the housing units are from each other, and climate related factors. Situation factors relate to fixed conditions that are not under the control of the tribe/TDHE, but that are not directly related to geographic location. Examples of this type of factor include the age of housing units, the presence or absence of other services such as Indian Health Services facilities in the community, tenant concern for housekeeping, and other conditions. Situation factors may have some relation to place, in that it might be more typical for units in a particular area to be older than units in another area, but location is not the most relevant aspect of these factors affecting costs. Finally, the last set of factors affecting cost are policy-related. These relate to decisions made by the tribe/TDHE concerning the operation and support of the housing units and residents. Examples of this type of cost factor are discussed below.

Table 5-2: Factors That Might Affect Costs

Location Factors	
Remoteness	Remote area—higher travel costs for labor Remote area—higher material costs Remote area—inefficiencies due to labor supply Urban area—labor costs higher
Climate	Heating costs Cooling costs Humidity—mold-related costs Wear and tear related to cold, rain, wind, etc
Dispersion	Scattered site v. subdivision—subdivision may have additional infrastructure costs Distance between different housing sites or subdivisions—distance between units means higher cost to maintain and administer
Situational Factors	
Organizational structure	Staffing structure TDHE or Tribal department
Tenant characteristics	Average age of tenants – older households generally require less attention Employment Housekeeping standards Family type and size
Unit characteristics	Age of units—older ones require more maintenance Design issues related to age of units—may be tied to high maintenance costs if extensive mitigation needed for mold or asbestos

Other situational	Presence/absence of Indian Health Service—may affect cost of health benefits for staff BIA land issues—may increase conveyance costs Need for security
Policy Factors	
Spending priorities	Investment in existing units v. development of new units v. other housing programs
Level of maintenance	Presence/absence of preventative maintenance
Level of service	Commitment to provide services to residents
Utilities policy	Payment or non-payment of resident utility costs, through direct metering or utility allowance

Policy Effects on Cost

Evidence from this study's cost data as well as input gathered during this study indicate that cost differences are also likely to reflect differences in local policies and spending priorities as well as differences in location and situation. TDHEs do not exist in a vacuum, and housing operating policies in general can and do reflect priorities decided on by the tribe. A few illustrative areas in which policies may affect operating costs are listed here.

Utilities

Differences in accounting for utility costs have already been discussed, but differences in utility payment policy also exist. Some tribes/TDHEs provide utility allowances, pay utility costs directly through centrally metered hookups, provide residents with propane, or provide residents with wood for their heating needs. Other tribes/TDHEs do not cover any utility costs at all for residents. Others provide utility assistance to specific groups of residents only, such as elders in their units.

Maintenance Levels

Decisions on the level of maintenance invested in 1937 Act units is at the discretion of tribes/TDHEs, as long as the units can pass periodic inspections. Some tribes/TDHEs choose to maintain these units at a high level, while others prefer to direct resources to the development of new units. Some observers report high levels of deferred maintenance in some areas. The cost data are unable to differentiate between minimum levels of maintenance and greater levels of investment in existing units.

Maintenance Provision

Maintenance costs can also be affected by policies related to the level of support given to MH residents. While the MH program was designed to put responsibility for maintenance on the residents, some tribes have policies to provide more maintenance support for MH residents. One tribe reported that its high operating costs relate to asbestos mitigation in MH units, even in units that have already conveyed. While programmatically the tribe/TDHE may not have had responsibility for this activity, the local policy affects costs although the reason is not evident in housing accounts.

Tenant Services

Tribes and TDHEs can choose to provide various kinds of tenant services, or they can provide none. Historically, 1937 Act units in some areas of the country have been characterized by bricks and mortar activities only, while at other tribes, tenant services are more common. Services such as rides into town, after-school programs, and resident employment programs have been eligible operating expenses to support the residents of 1937 Act units. Overall operating costs are affected by the level of tenant services, and the variety of services means that comparisons between different areas of the country cannot reveal location effects on these costs.

While many location, situation, and policy factors were mentioned by tribes and TDHEs, there is no systematic way to identify their impact on costs. Nor can any single factor, or type of factor, be identified as the most central in determining operating costs for all tribes/TDHEs. Each tribe/TDHE may be able to identify the ones it has felt have had the most impact on its costs, but these will not be the same from tribe to tribe.

Key Points

Administrative and maintenance costs are the highest cost categories for LR units, followed by general costs, utilities, and modernization.

For MH units, administrative costs make up over half of all operating costs.

Alaska has the highest total operating costs for both LR and MH units, with LR costs in particular much higher than in other regions.

There is greater dispersion for MH program costs than for the LR program.

Administrative costs are relatively constant between regions for LR units, but vary more for MH.

Maintenance costs are much higher for LR units than for MH units, as expected.

Insurance costs are relatively constant for both LR and MH programs. Other general costs, such as protective services, vary greatly in whether they appear at all, as well as the level of costs for those that do provide this activity.

Like protective services, tenant services appear to be “optional” in that not all tribes report costs for this activity. Tenant services costs are particularly high in the Alaska region.

Utilities costs are particularly high in Alaska, and are much higher for LR programs than for MH programs.

The variation in operating costs for many cost categories reflects the spending flexibility specified in NAHASDA as well as location factors.

Three types of factors affect costs: those related to location, situation, and policy.

While many factors are expected to influence operating costs, financial reports cannot isolate the effects of any particular factor. In addition, identifying and tracking rising costs will only be possible if detailed data are collected on an ongoing basis.

VI. Collection and Use of Indian Housing Operating Cost Data

The previous chapter presented the Indian housing operating cost data collected in this study and also outlined factors affecting cost. This chapter focuses on the collection and use of housing cost data. It describes the issues of data collection and standardization that affected the number of data sets used in the study. These issues also have implications that must be considered if the collection of housing cost information from all tribes is eventually instituted.

The first part of the chapter, focusing on the collection of 1937 Act housing operating cost data, includes three sections. The first section describes the available cost information and discusses various information formats. The second section discusses the impact of the available formats and outlines some key findings. The third section discusses specific accounting and classification issues arising from the variety of cost data formats, summarizing specific issues that affect the standardization of cost data.

The second part of the chapter discusses use of operating cost data collected from tribes/TDHEs as a basis for cost adjustment in the IHBG formula. First, it evaluates the suitability of the data as a location-based adjustment factor and as a broader cost adjustment factor. Next, it describes two alternative ways to implement cost data as a basis for cost adjustment.

Collection of Indian Housing Operating Cost Data

Description of Available Information

Since the APR does not provide sufficient information from which to extract 1937 Act operating costs, tribes/TDHEs were asked to submit financial reports. In the absence of required reporting in a detailed annual expenditure format, tribes use a variety of systems to meet their internal accounting needs. The particular structure of an accounting system describing housing operating costs will be affected by such factors as whether it is run by a TDHE or a tribal housing department, whether the accounting is done internally or through a fee accountant, and on the type and level of detail used by the housing staff and board to monitor accounts. Accounting systems, and the financial reports they produce, differ in such areas as the extent to which they mirror the APR structure or continue to follow the pre-NAHASDA reporting structure, and the level of detail they include. This variability in accounting systems limits data availability and comparability.

The most commonly available source of day to day accounting data is the general ledger; however, the general ledger is typically of a size and complexity to prohibit its use in this study. The general ledger accounts are summarized by tribes/TDHEs for their own budgeting purposes in a variety of ways. With the decommissioning of the 1937 Act accounting

structure, a variety of general ledger systems developed. A brief discussion of some of the more common of these follows.

Reports That Follow Pre-NAHASDA Reporting Structure

Some tribes/TDHEs continue to use a financial report structure that closely follows the format of HUD Form 52599 (52599), Statement of Operating Receipts and Expenditures, which was used to report Indian housing expenditures in the pre-NAHASDA period. These accounts transferred easily to the cost study standard data format.

Reports with Consolidated or Expanded Account Classifications

With the removal of a standardized chart of accounts, some TDHEs and tribes moved to create their own account classifications to reflect their own internal needs. Often the changes were a consolidation of accounts used in form 52599. In some cases the accounts are condensed into so few categories that there is not enough information on which to allocate costs to standardized categories. For example, some tribes/TDHEs submitted financial statements containing expenses in the following categories only: salaries and benefits, supplies, utilities, insurance, and modernization. Typically each short list of categories shared some of these categories but each list differed. However, in these cases the categories were too broad to distinguish between, for example, administration and maintenance costs. While this list is an extreme example of consolidation, and it would be uncommon to find all of these accounts compressed to this degree, it illustrates the consolidation of accounts that has been widely employed. Obviously, the more compact the system the more difficult it becomes to determine 1937 Act housing costs in any detail.

At the other end of the spectrum, larger organizations have found a need for account expansion to record central administration costs separately from project or organizational unit costs and will track expenses in greater detail than that which was required under 1937 Act reporting. For example, maintenance accounts may include line items for each type of salary and benefit, may separate out maintenance of occupied units from maintenance on vacant units, and may contain additional types of detail. These accounts can generally be easily transferred to the standard operating cost study format.

Reports That Follow APR Structure

Another popular approach, and one frequently employed, is to structure the general ledger to the IHBG reporting requirements found in the APR. Under this method a cumulative grant expenditure report is prepared for each open grant to facilitate APR reporting. For the IHBG recipient this approach allows for the transfer of cumulative, individual grant year data to the APR at the end of a 12-month fiscal year period. Unfortunately, this system does not identify only those expenditures made during the 12-month reporting period within each grant. In order to determine 12-month expenditures one must compare the current fiscal year report with the previous fiscal year report to obtain the 12-month activity. This must be done for each open grant.

To determine, for example, the amount of planning & administration costs incurred for the 12 months preceding June 30, 2003 in grant year 4, the balance reported at June 30, 2002, would have to be subtracted from the balance reported at June 30, 2003. The process works like this:

YR 4 P& A costs at 6/30/03……$ 150,000
YR 4 P & A costs at 6/30/02…….<80,000>
12 month P & A costs for YR 4 7/1/02-6/30/03..$ 70,000

This calculation must be made for each open grant and then the results totaled to obtain the organization's cost for the 12-month period. With some effort it is possible to extract 1937 Housing Act costs in categories comparable to those on the pre-NAHASDA Statement of Operating Receipts and Expenditures, form 52599. Despite this, as described earlier, the problem still remains as how to capture 1937 Act costs that may be included in the other APR categories, Planning & Administration, Housing Services, Housing Management Services and Crime Prevention and Safety. Financial reports received in this format generally could not be used since they could not be put in a standardized format.

Accounting Systems in Tribal Housing Departments

Housing programs operated as a tribal department often have operating cost accounts that are inextricable from tribal accounting systems. In those cases where the tribe has elected to become the IHBG recipient, it has accepted the responsibility for accounting and reporting. Typically, a tribal accounting system did not have a housing component which would accommodate the housing programs that preceded the IHBG program. The development of IHBG compliant accounting systems would not have required the tribe to formulate a system that mirrored pre-IHBG systems. If the tribe had 1937 Act stock and became the recipient in the IHBG program, some hybrid system might be cobbled together combining elements from the old system used by the TDHE.

Frequently, the tribe will consolidate IHBG activities into a housing division or non-profit organization which may include other tribally run programs or enterprises. With activities and staff intermingled, these systems can be the most challenging from which to extract 1937 Act housing costs.

Transition to GAAP

Some agencies have continued with the previous 1937 Act system modified to comply with Generally Accepted Accounting Principles (GAAP) requirements and supplemented with accounts for new activities allowed under the IHBG program. Data from these organizations tend to be consistent across the study period (2002-2004), reflect 12 months of activity for each reporting period, and are readily comparable with pre-IHBG data. However, some tribes/TDHEs changed their accounting systems to comply with the GAAP requirements during the 2002-2004 study period, and did not have comparable accounts for all 3 years.

Finally, IHBG accounting and reporting continue to evolve individually and creatively, so much so that in some organizations it is not possible to compare year-by-year results because of annually (at least during the study period) changing charts of accounts. For tribes/TDHEs, this self-determination approach can yield a finely tuned and highly engineered product that best services their specific organizational needs. For purposes of outside analysis and aggregation, however, it poses daunting challenges of comparing costs across years or across tribes.

Impacts of Non-Standardized Financial Reports

In the absence of required reporting in an annual expenditure structure, tribes use a variety of systems, as described above. These differences, although consistent with self-determination and tribe-identified needs, limit the availability of data for tracking housing operating costs. It also means that data between tribes cannot be reliably standardized into a comparable data structure. Some of the issues arising from these differences are outlined in this section.

Project Level Cost Data

An initial goal of this study was to use project-based operating costs, in order to allow an asset-based cost assessment similar to that used in privately operated housing. However, almost no tribes or TDHEs collect or report costs by project. Project-based accounting systems are not in place, and so no project-based tracking of costs is possible. Many tribes/TDHEs do track modernization costs by project, and some also keep records on maintenance tasks by project. However, general shared costs are never separated out.

In fact, costs by project would be of limited usefulness in assessing Indian housing, especially Mutual Help projects, since housing units are in many cases physically dispersed, and units from two different projects may be indistinguishable in operation for all practical cost purposes. MH and LR units are rarely located in multi-family buildings. Even if project-level data were available, project-based management would not be the most useful or meaningful strategy for tracking costs.

Program Level Cost Data

Another study goal was to be able to differentiate between operating costs of LR and MH units. The AEL data was originally developed to represent LR operating costs; however, the AEL data is used in the IHBG formula as a geographic adjustment factor for MH units, as well as LR units. The two programs historically have different designs and associated responsibilities on the part of TDHEs, and operating costs differ accordingly. This is reflected in the different 1996 base funding amounts for the different types of units. Therefore distinguishing between these costs is important to the study. However, many tribes and TDHEs do not allocate costs between these programs, especially in areas such as administration, tenant services, and other general costs, since they are no longer required to report costs by program. In addition, for these categories listed above, reporting requirements for the APR group together costs for 1937 Act units and NAHASDA units.

Also, some tribes and TDHEs continue to track cost by program but others do not. For the purposes of this study, when program data were not available, we have found that discussions of costs with tribe/TDHE personnel have yielded their best estimate, based on specific activities, of the costs attributable to each program. However, this identification of program costs is an estimate. For some tribes/TDHEs, estimates have been allocated to LR and MH units on an equal per unit basis, since they did not have any better information on which to base a more differentiated cost estimate.

Data Often in Format with Insufficient Detail

In this study 103 tribes or TDHEs, representing 110 tribes, submitted some type of data for this study or cooperated through a site visit. Of these, many of the data sets could not be finalized in the study's standardized format. Many of the submitted data sets were inappropriate for the purposes of the study because they were based on the APR structure, for which the incompatibility issues have been identified above. Others provided minimal detail, grouping data so that costs could not be sorted into the categories used in the study format. In all cases, tribes were contacted by email, fax, or telephone to request additional information to enable their data to be included in the study. In some cases, tribes/TDHEs were able to provide additional data so that their data could be included, but in many cases they did not respond or they indicated that no further information was available.

Effects of Staff and Accounting System Changes

Data collection and extraction are further complicated by two other phenomena, namely staff turnover and continually evolving accounting systems. In attempting to garner the clearest understanding of an organization's data, it is necessary to rely on institutional memory. Sometimes, staff turnover has effectively obliterated that memory. Although current staff members are as helpful as they can be, they often cannot answer questions about data which predates their employment. This can particularly frustrate the attempt to distribute costs by housing program and to determine amounts in other APR categories which might belong to 1937 Act costs. Since the APR does not break out these costs, only an estimate can be made and if current staff members are not conversant with the organization's history, the estimate must be made with less certainty.

Issues Affecting Data Standardization

A number of issues created obstacles to the standardization of cost information. These problems are linked to the variety of accounting systems used to track and report financial information, as described above, and arise in the absence of a regulatory reporting requirement linked to a tightly defined financial report system. The following list describes the types of issues that arise in some specific areas that can make it difficult to classify costs at the target level of detail.

Cash-Basis versus Accrual-Basis Accounting

In cash-basis accounting, actual funds spent are listed. In accrual-basis accounting, capital expenditures are depreciated over several years. Depreciation is an allocation of the cost of the asset over its estimated useful life. Each year's recorded expense for that item is the depreciated amount for that year. For our purposes, we assumed that individual cost categories are reported on a cash basis. Depreciation amounts listed as a separate line item are excluded from the standardized accounts. However, if an accrual-based accounting system has been used, depreciation expenses may be included in all the cost categories, and the actual cash amount spent will be overstated.

Capital Expenditures

In statements that use cash-basis accounting, total costs of capital expenditures are listed. Sometimes capital expenditures are listed in a specific category and may be identifiable and classified as capital expenditures. For purposes of tracking housing operating costs, capital expenditures may be treated in several ways. Inclusion of all capital expenditures is the most straightforward option with the least amount of data manipulation. The simplicity of this approach is appealing; it has the appeal of following a "take the data we get" approach. This is the approach we used in constructing the database. However, a capital expenditure can be seen as an exaggeration of operating costs, since in most cases, in smaller operations they will not occur annually but rather once every 5 or 10 years, in the case of a vehicle. Exaggeration of operating costs not only fails to show actual operating costs accurately, it biases comparison between tribes, since some tribes will not have capital expenditures during the three study years (2002-2004), but will have capital expenditures that they have to budget for and pay for in another year.

Alternatives to using the capital expenditure data "as is" include changing it to a depreciated amount or excluding these costs. Benefits of depreciating capital expenditures include the allocation of cost over several years, which would reduce any bias resulting from comparing costs for tribes that bought capital assets in the study years with costs from tribes who purchased capital assets in non-study years instead. Excluding capital expenditures eliminates bias resulting from the "snapshot" data collection in which capital expenditures made just before or just after the study period are not captured, while those made during the study years are. This may be useful in comparing costs of different tribes to come up with a fair location index. However, exclusion of all of these costs will mean that operating costs will be underestimated, making this approach less useful for generating accurate actual operating costs. In addition, depreciation schedules are different for different items. Since the information on financial reports rarely specifies the particular capital item or items purchased, it is not possible to depreciate these costs correctly.

A final approach is to estimate capital expenditures. Estimation of capital expenditure costs relies first on exclusion of reported capital expenditures, then incorporates estimates of costs based on standard replacement schedules. However, this approach relies on some assumptions, for example an assumption about the number of vehicles used by each tribe to operate housing which may differ from actual use.

Travel/training

Travel and training are often combined in one line item. While these often go together, as when a staff member travels to go to training, there are local transportation costs which are completely separate from training costs. Some tribes have referred to the cost of traveling between widely dispersed housing units, but given the variation in reporting travel costs, travel costs for different areas of the country and tribes with different land areas cannot be compared.

Contract Costs

One type of category used in our standardized IHOC system, and listed under administration and under maintenance, is contract costs. This is included because it is a common category found in the financial reports of many tribes/TDHEs. However, it is difficult to integrate this information, which usually combines labor and materials costs, with in-house separate expenditures for labor and for supplies. Usually no further information is available on contract costs. This lack of detail limits our ability to get a clear picture of where maintenance expenditures are going. Anecdotal information suggests that materials and labor used in housing maintenance are rising in cost in some regions, but the accounting information does not allow for a comparison at this level of detail over time or across regions.

Allocation of Categories between Departments

Some financial reports include single line items for costs such as salaries, benefits, travel and supplies. In an ideal system, we should be able to separate these costs into departments such as administration, tenant services, maintenance, protective services, modernization, and development. This was the case for many tribes/TDHEs, but not all, although in most cases the costs spent on development and modernization seemed to be fairly well separated. In cases where one or two of these types of line items were not separated out, such as travel and training, we have classified these all as administrative costs. For a small number of tribes, salaries are listed as a single item. In accordance with our consistent practice in the absence of additional information, we have classified these as all administrative costs; however, it is likely for tribes/TDHEs with LR units that some of these salaries are for maintenance or tenant services activities. In financial reports in which most of the line items were this broad, we have not been able to include the data in the study unless we received additional information from the tribe/TDHE.

Indirect Costs

One cost category found in financial reports of some tribes is indirect costs. Tribes operating housing may charge indirect costs, although TDHEs may not. For purposes of this study, these costs were classified as administrative costs. Since this cost does not identify specific types of costs incurred, these costs may not be fully comparable with other data.

Payments to Tribes

Some TDHEs reported payments to tribes. These expenses generally covered a specific service, and were classified accordingly. For example, if a TDHE reported that a payment to the tribe covered protective services, this cost was classed with protective services costs. Where the available information did not specify the use of a payment, it was classified as "payment to tribe."

Federal Withholding Costs

Financial report data may reflect cash payments rather than budgeted expenses. In the case of Federal withholding, wages paid may be the net due to employees after withholding, rather than the gross total pay. So, part of the salary/wages costs will be included in payments to the federal government instead. It may not be possible to determine if withholding amounts are included in wages or not. This ambiguity may make it advisable to lump wages and benefits together in any future analysis of costs.

Maintenance Costs

Some tribes/TDHEs provide maintenance and then are reimbursed by tenants. We do not include these costs. The usual practice for MH units is for the resident to be responsible for maintenance and the tribe/TDHE's role as a maintenance provider is similar to that of a private outside company. In some cases, the reported expenditures may show the gross amount spent on maintenance instead of the net, with the reimbursed amounts separately reported as income. This would overstate maintenance costs; however, this does not appear to be a common situation.

Housing Services

The category Housing Management Services includes costs that might be coded as administrative in some cases and tenant services in others. We code Housing Management Services as administrative expenses, since they typically involve activities such as income verification that serve administrative requirements rather than provide resident-oriented services. In situations where the tribe filled out the IHOC form or another spreadsheet, they may place these expenses in tenant services instead of in administration.

Allocating Administrative Costs

The allocation of administrative costs when the tribe/TDHE operates non-1937 Act housing units or programs can be difficult. In some cases, the data reports we receive might include all administrative costs for the tribe/TDHE, even though they operate non 1937 Act units or programs. Some TDHE directors have been able to estimate how much of their time, or of administrative time overall, is spent on 1937 Act units, and how much on other units and programs. Using these estimates, the accounts are then adjusted to remove the non 1937 Act share of salary costs. Unless more specific information is available, we typically allocate all other administrative costs with the same proportion.

If a TDHE reports costs via a form or via our categories, rather than by sending in one of their operating or income statements, the costs are accepted as submitted rather than by using an in-depth review.

Utility Costs

Differences in how utilities are paid for affect how they are included in financial reports. If units are centrally metered and paid for by the tribe/TDHE, then these costs show up as utility costs in the financial reports and are included in the cost database. However, many tribes and TDHEs provide for utilities through utility allowances. If units are metered to the resident, and utility allowances are provided, the cost of the allowances will not be reflected in financial reports, and will not be recorded as a housing operating cost. This omission stems from the usual accounting practice of subtracting utility allowances from rental payments. The cost shows up in standard financial records as diminished income rather than as an expense. This means that many tribes and TDHEs may have utility expenses that are not reflected in these accounts.

Future Data Collection Options

If housing operating costs data are to be used in a revised IHBG formula, or if the collection of this information is instituted for possible tracking uses, several means of collecting those data are possible. Appropriateness of the following methods may be affected by whether submission is required or voluntary, and whether the information is to be collected annually or one time only.

Use of Existing Documents

Financial Reports

The method used here, the collection of existing financial reports, was useful in this study to determine the amount and form of information available. In addition, it was an appropriate format for this study because participation was voluntary. Submission of existing financial reports was the easiest way for tribes to participate and required the least time and effort for them.

However, the issues outlined earlier suggest that this method is not appropriate for a comprehensive collection of operating cost data from all tribes.

HUD Form 52599

Prior to NAHASDA, operating costs for 1937 Act Indian housing programs were collected on HUD Form 52599, Statement of Operating Receipts and Expenditures.[31] This form classifies operating expenditures into these main categories: administration, tenant services, utilities, ordinary maintenance and operation, protective services, general expense, non-routine maintenance, rent for leased dwellings, and capital expenditures. This form has the advantage of being a familiar format for tribes/TDHEs. The form also gathered information on operating receipts for Indian housing programs.

While this form is still familiar to tribes/TDHEs, its use could be perceived as a step backwards. It also gathers additional information that, while giving a more complete picture of the program's financial accounts, could be eliminated if operating costs were the only information for which a need was identified.

IHOC Form

The form designed for this study, the IHOC form, is a modified version of form 52599. It was designed to reflect, to the extent possible, cost categories in use today by tribes/TDHEs. It includes only information on operating costs, rather than on income as well. It is designed to collect information on rental units and homeownership units on a single form. In addition, it simplifies some of the cost categories listed in 52599, combining, for example, accounting and auditing expenses. Another change is that it aligns benefit costs with salary cost reporting, listing benefits under several major categories, such as administration, tenant services, and maintenance, rather than grouping it as a single line under general expense.

The IHOC form was used with a small number of tribes as a pilot test. Once approval was received, it was distributed to tribes for which the submitted information was insufficient, along with a request that it be completed. Few tribes completed the IHOC form; however, a number of tribes that did use it gave positive feedback on the format. The form could be used as the basis for a required collection. If collection of housing cost data becomes an annual requirement, the transfer of cost information in this format is likely to become routine for tribes/TDHEs.

Impact of Routine Data Collection

Many of the issues that affected data standardization in this study would be resolved using a routine data collection process. Data collection forms, such as the 52599 in the pre-NAHASDA years and the APR currently, include detailed definitions of each cost category. Tribes/TDHEs completing a revised cost data form annually would have specific guidelines about which costs to include in each category, which yields consistent, comparable data.

[31] Detailed data on operating expenses for PHA-operated rental units are no longer collected. The new Operating Fund system uses Form 52723, Operating Fund Calculation of Operating Subsidy, to report the number of vacant and occupied units and calculate funding based on the Project Expense Level, the Utilities Expense Level, and specific add-ons.

If routine data collection, via a required form, is instituted, some tribes/TDHEs would need to modify their accounting procedures to track costs appropriately. For example, if they do not currently track costs by program, they would need to alter their accounting accordingly. This is expected to be a short-term burden for some tribes, but once the transition is made, fulfilling the requirement is not expected to pose more of a burden than current data submissions do.

Use of Indian Housing Operating Cost Data in Formula

One goal of this study was to assess the viability of using Indian housing operating cost data as the basis for cost adjustment in the IHBG formula. The use of "actual costs" has an intuitive appeal as a way to allocate funds to meet the needs of tribes. However, use of actual costs has a number of theoretical and logistical barriers which could make this approach difficult to adopt. This section reviews the suitability of Indian housing operating cost data for use in the formula.

Cost Adjustment Types

Location Adjustment

As discussed in the last chapter, many different conditions affect the costs of operating 1937 Act units. Housing costs collected for this study reflect the influence of all these conditions on cost, not just the effects of differences in local area operating costs. In addition to location factors such as climate and remoteness, situational conditions, such as the availability of services from other agencies, and policy conditions, such as the choice to pay for utilities, also affect the operating costs reported by tribes/TDHEs.

Under NAHASDA, tribes/TDHEs determine how to best meet their own housing needs and priorities and allocate grant funds in line with these goals, which they outline in their IHPs. This flexibility means that actual operating costs will reflect local choices perhaps more than for a program with more spending restrictions. While this is in line with the intention of NAHASDA, it does mean that actual spending on 1937 Act housing operations does not purely reflect costs of operating housing in different locations. This makes actual spending unsuitable for cost adjustment if the intention is to make the adjustment solely on the basis of location.

One approach to using Indian housing operating costs as a basis for a location cost adjustment might be to use a subset of reported operating costs, using only costs that must be paid by all tribes/TDHEs. Cost categories for which some tribes/TDHEs report zero costs, such as utilities or tenant services, would be clearly unsuitable to include, since these represent costs that some tribes choose to spend no money on. Maintenance costs, especially for LR units, require some minimum level of spending to meet inspection standards, and so are more likely to represent location costs rather than the effects of local spending choices.

Broad Local Area Cost Adjustment

Actual Indian housing operating costs may be useful in determining operating cost needs even though they reflect more than geographic differences in the cost of providing the same activities. We turn now to a discussion of what actual costs might show, and how their character might affect their use in a funding formula.

Total operating costs may not be any more valid than AEL as a means of adjusting national average cost data for locations. However, operating costs may still represent an adjustment factor that is consistent with the statute (25 USC 4133) and, therefore, useful in the distribution of funds. While the FCAS funding is based on estimates of the costs of operating FCAS units, there is no requirement that these funds be spent on FCAS units. However, tribes/TDHEs are required by statute to maintain 1937 Act units. Actual operating costs might be considered to be a good indicator of how well this requirement is met. Therefore, operating costs may be used as a factor that adjusts the national average FCAS based upon the tribes/TDHEs fulfillment of the statutory requirement to maintain 1937 Act units.

Use of actual costs data in the formula could reward expenditure of IHBG funds on 1937 Act units. Tribes/TDHEs that spent a high proportion of their IHBG operating subsidy allocation on 1937 units would have a larger adjustment factor than those that spent a small proportion. This would encourage all tribes/TDHE to meet the conditions of NAHASDA.

> …reserve and use for operating assistance under section 4132(1) of this title such amounts as may be necessary to provide for the continued maintenance and efficient operation of such housing.[32]

The IHBG formula calculates an amount for operating subsidy and an amount for modernization subsidy of LR and MH units. Since these funds are only provided to tribes/TDHEs with 1937 Act units, there is an implicit suggestion that this is where they should be used. To use these funds for the addition of non-1937 Act units would be to give an advantage to these tribes/TDHEs compared to the tribes/TDHEs that rely only upon the Need portion of the formula.

Basing funding on actual cost expenditures supports a philosophy that current cost levels provide the best basis for relative funding needs. In this position, current costs are a good basis because they reflect the meeting point between local costs and local spending priorities related to 1937 Act units. In this view, spending is likely to be an accurate reflection of operating costs since under NAHASDA, tribes are able to spend money where needed. Additional operating costs may be met if needed through the need portion of the IHBG grant.

An opposing position states that basing funding on current cost levels rewards those who have gotten more in the past, when there are more likely to be unmet needs in places that have had lower cost levels. They argue that current cost differentials reflect factors other than differences in the cost of doing business, such as differences in what tribes choose to do for residents. For example, TDHEs in some parts of the country historically have provided more

[32] US Code-Electronic Edition, accessed at http://www.access.gpo.gov/uscode/uscmain.html

services, while others have been more bricks-and-mortar oriented. In addition, if costs are accepted uncritically, inefficient or profligate spending may be rewarded by continuing higher levels. Tribes have provided different levels of services based not only on what their residents need but also on funding available to them, past-based expectations, and policy decisions.

While there is no requirement that FCAS funds be spent on FCAS units, NAHASDA supports the use of funds to maintain and operate 1937 Act units, stating that tribes/TDHEs shall "reserve and use for operating assistance…such amounts as may be necessary to provide for the continued maintenance and efficient operation of such housing."[33] Actual housing costs, which reflect spending on operation and maintenance, may provide a useful "local area cost adjustment for management" as specified by the formula. The costs incurred by tribes/TDHEs to operate 1937 Act units, as discussed earlier, reflects 1) local area costs related to geographic factors, 2) situational factors, and 3) local policy factors. As such, these costs may represent an ideal balance point between local area differences and willingness to spend on the units.

This approach would be used if it were agreed that different levels of service are legitimate, locally determined costs that should be included "as is." The use of past or current housing costs is ideal if policymakers agree on two principles. The first principle is that tribes are the best judges of what services are needed for their own housing. This perspective is the widely accepted foundation for the current block grant approach to funding. The second, equally important principle is that current housing costs are a good basis for future funding if current levels for all tribes are sufficient to meet comparable base levels of service. If some tribes are underfunded compared to others, and so do not have the choice to support the same level of operating services, then basing funding on past or current spending will perpetuate inequities in the funding formula.

Should tribes/TDHEs and HUD decide to shift to using actual Indian housing operating costs as an adjustment factor in the formula, they can be included in a number of ways. The first section below discusses options for which costs to include; the second section discusses various ways to work the mechanics of an actual cost-based adjustment.

Costs Included

The use of actual Indian housing operating cost data in the formula could incorporate all costs, reflecting the full tribe/TDHE funding commitment to the operation and maintenance of 1937 Act units, or it could include only selected reported costs. In this approach, funding would be based on a subgroup of reported costs, for example maintenance costs, or maintenance and administrative costs. Types of costs that vary the most by local policy, such as utility costs and service costs, would be excluded. The effort would be to include only costs that are expected to reflect the cost of doing business locally based on a common type of activity. It would reflect the level of maintenance and continued investment in the units only, rather than the spending on supplementary activities. It would not include categories where local policy, rather than the local cost of a given activity, determines cost differences.

[33] US Code-Electronic Edition, accessed at http://www.access.gpo.gov/uscode/uscmain.html

Tribes appear to provide different levels of utility allowance, for example, even if they are located near each other.

Inclusion of all costs, on the other hand, would reflect a philosophy that not only are these supportive activities critical components of the operation of 1937 Act units, but that differences in funding these supplementary activities reflect local conditions and are not affected by differences in funds received by different tribes/TDHEs.

Adjustment Factor Mechanics

An adjustment based on actual Indian housing operating costs could take several forms. One would be to compare actual expenditures to the national weighted average of actual expenditures. Another would be to compare actual expenditures to FCAS funding received.

Ratio of Tribe/TDHE Costs to National Costs

One way to develop an adjustment factor using actual Indian housing operating costs would be to use a ratio similar to the AEL and FMR factors currently in use. This ratio, comparing a tribe/TDHE's actual operating costs to a national weighted average of all tribe/TDHE actual operating costs, has the advantage of following a familiar format. It appears to be a straightforward way of reflecting local area costs based on actual local area expenditures.

Applying a factor with this structure means that a tribe/TDHE that spends the same as the national weighted average would receive per unit funding equal to the inflation-adjusted base funding amount. Tribes with higher than average actual expenditures would receive more than this, while tribes spending less than average would receive less than the base amount. This makes intuitive sense, since the base amount is intended to represent the average cost of operating one unit of housing.

Using this kind of ratio to derive a factor has some drawbacks, however. A denominator consisting of the national weighted average of all actual operating costs will change from year to year, making each tribe's adjustment factor unpredictable. Year to year changes may be especially likely in the short run since this factor builds in an incentive to increase spending on 1937 Act units.

Changes in average per unit spending will have a big impact on the funding tribes receive. If average per unit spending were below the average per unit allocation, as is expected, then while tribes spending less than their previous allocation would receive less than that allocation, all tribes should receive more than they actually spent on FCAS units. This appears to be a winning situation that gives all tribes some discretion to increase spending on maintaining FCAS units as necessary. However, this distribution only exists if average per unit spending is below the prior allocation.

Ratio of Tribe/TDHE Costs to Tribe FCAS Funding

One adjustment factor, here called the Local Policy and Practice (LPP) factor, could be the simple ratio of expenditures and allocations. The LPP factor would use expenditures toward 1937 Act units as an indicator of the continued maintenance and operation of those units. A low ratio of expenditures to allocated funds would be seen as an indication that continued formula allocations at the same level were unnecessary. In this case, it could also be implemented so that funds that were not allocated by the factor were made available for the Need portion of the formula.

An example of how a LPP factor might work is the following. A LPP adjustment factor would be created from multiple year data on the operating subsidy and the actual expenditures for those same years. If the tribe had a LPP of less than 1, then the current year calculation would be reduced by half of (1 – LPP). The difference between the current year subsidy and the LPP adjusted subsidy would be set aside for cases where LPP was greater than 1 or this difference could be moved to the funds available for Need.

In developing an LPP adjustment it would be important to use a consistent set of cost categories and data collection procedures. This study has provided the basis for those categories. It has also provided forms and procedures that could be the basis for the collection of operating costs.

It would also be important to calculate separate LPP factors for LR and MH. It is reasonable to expect that some tribes/TDHEs might have different ratios of expenditures to formula allocation for MH and LR units. To use a common LPP would allocate funds inappropriately. An LPP factor seems appropriate for Section 8 units, but the data for its creation was not collected as a part of this study.

Summary

Actual costs have some attributes that make them an appealing measure for use in the IHBG formula. They can provide real-time costs that reflect actual housing cost conditions. In addition, they could address the issue of underfunded maintenance by providing an incentive to spend on this existing housing stock. However, actual cost data have some significant drawbacks and challenges which should be considered.

Some of the drawbacks of actual cost data can be addressed fairly easily, including the lack of a current data collection tool and issues of cost variability caused by different tribe housing service levels. The form 52599 could be used with some modifications, and provision of cost information would also contribute to a “good government” goal of transparency. While tribes do provide varying levels of service for the 1937 housing stock, making their total operating costs hard to compare, comparability between tribes could be achieved by the use of only maintenance cost data in the formula. Since maintenance costs are shared by all tribes, unlike some of the other housing-related costs, they appear to be the best basis for comparability.

Other issues are harder to resolve, and make the use of actual cost data in the formula problematic. If actual spending provides the basis for future funding, there can be an incentive to increase spending unnecessarily. In the earlier discussion this was presented as a way to address underfunded maintenance. However, it also provides an incentive to overspend, possibly contributing to inefficiency and waste.

In addition, self-reported data used as a basis for funding requires verification and correction. For example, FCAS numbers are regularly verified and corrected by ONAP staff through consultation with the tribe/TDHE. Cost data are more complex, as described above, and the verification of costs would require significantly more time, which is likely to increase the costs of administering the formula.

The suitability of using Indian housing operating cost data as the basis for cost adjustment in the IHBG formula depends on the goals of the adjustment. If a pure location index is preferred, there may be more suitable data sources. If, however, the goal is to adjust funding based on actual spending, and to encourage additional spending on 1937 Act units to preserve the stock through sufficient maintenance, actual operating cost data may be appealing. However, the side effects of using actual cost data must be addressed and may be insurmountable.

Key Points

Collection of Operating Cost Data

Current reporting requirements are incompatible with the collection of annual operating costs.

In the absence of required reports on detailed annual expenditures, tribes/TDHEs use a variety of accounting systems and financial report formats to meet their internal accounting needs.

The variety of available information makes standardized analysis difficult. In addition, because the last few years have seen transitions to different accounting systems, in many organizations year to year comparisons have not been possible.

In many cases, data submitted by tribes could not be used because it could not be put into a standard format to aggregate or compare with other data. Causes include too few categories or an incompatible format.

Obstacles to standardizing cost data include differences in accounting and financial report structure, including differences in cost category definitions.

Operating cost data is rarely available by project. Program level data is available for some tribes/TDHEs. In some cases where program level costs are not tracked, administrators and financial staff were able to estimate allocations of their total costs by program.

Use of Operating Cost Data

Current operating cost data cannot be considered an accurate indicator of geographic impacts on cost. Variation in cost can be attributed also to policy differences that result in different spending priorities, and the geographic influence on costs cannot be separated out. Maintenance costs offers the operating cost data that is most comparable data across tribes.

An adjustment factor based on actual operating costs would create an incentive to spend funds on 1937 Act units. This could address concerns that the 1937 housing stock suffers from underfunded maintenance, while still allowing tribes complete spending flexibility in line with a commitment to self-determination.

The incentive to fund 1937 housing operating costs could also lead to inefficient, wasteful overspending. In addition, if self-reported costs data are used in the formula, it could impose a substantial burden on formula administration for cost verification and correction.

VII. Other Sources of Cost Comparisons

Overview—Use of Alternative Data

The scarcity of comprehensive and consistent data on housing operating costs in Indian Country and Alaska was well known prior to this study. For that reason HUD included a task to identify and assess possible data sources that could be used as benchmarks, or indicators, of geographic differences in Indian housing operating costs.

Alternative data sources are useful in the absence of complete and standardized data based on actual Indian housing operating costs. An important consideration here is that alternative data sources are not intended to represent Indian housing operating costs directly. They are not intended to be used to generate an actual funding amount for each tribe, but to indicate costs in one location relative to average costs. Costs in the IHBG formula are converted to an index and serve as a comparative factor to adjust funding, rather than as an absolute funding amount. Alternative data sources must therefore be consistent, and must represent local area differences comparable to Indian housing operating costs, but need not be an exact proxy for the costs of operating 1937 Act housing units.

Data from HUD, other Federal Government departments, and private sources were considered for use as a replacement for AEL as a geographic adjustment factor in the IHBG formula and for their ability to represent housing operating costs in Indian Country. This chapter includes an overview of the criteria used to evaluate these data, and a discussion of each data source. The next chapter presents an in-depth discussion of a promising set of data, cost information from the USDA 515 rural housing program.

Criteria for Evaluating Data Sources

Several data sources were evaluated for use as an indicator of housing operating cost data, or as including both public and private sources. When comparing different data and data sources it is important to have clear criteria for evaluation. Several criteria were used to assess their suitability for use as an index for local operating costs. These are listed below.

Housing type: Do data represent detached units, apartment buildings, etc.? Do they represent assisted or private market housing?

Data content: Do the data represent operating cost, rental costs, labor costs, etc.?

Geographic coverage: Do the data come from within the counties of tribes/TDHEs with 1937 Act housing? Do the data represent rural or urban locations?

HUD Sources	Housing Type	Data Content	Geographic Basis
MIRS Data	1937 Act housing	All operating costs from before 1996	Indian Country
Annual Performance Report	1937 Act housing & other Indian housing	broad categories of operating costs; does not distinguish between LR, MH, & other costs	Indian Country
Performance Tracking Database	1937 Act housing & other Indian housing	broad categories of operating costs; does not distinguish between LR, MH, & other costs	Indian Country
Project Expense Level	cost adjustment based on FHA housing	geographic adjustment	mostly metropolitan, some rural areas
Section 202	assisted elderly housing	operating costs	metropolitan and small towns
Annual Adjustment Factor	2 bedroom unit rents covered in Fair Market Rent numbers	rent inflation	metropolitan and some nonmetropolitan areas
Federal Agencies	**Housing Type**	**Data Available**	**Geographic Basis**
Quarters Management Program	single family homes rental homes	geographic factor of fair rental cost	rental housing markets in remote locations
Low Income Housing Tax Credit Program	multifamily units	project data; no central source of operating budgets	some located in Indian Country
USDA 514 Program	farm labor housing	operating costs	rural and urban
USDA 515 Program	rental units including duplexes & small multi-family buildings	operating costs	rural counties
Department of Labor	not limited to housing	labor costs	counties and groups of counties
Bureau of the Census, Economic Census	all real estate	labor costs	counties
Bureau of Indian Affairs, Indian	road construction	state “market basket” for road	previous year’s construction in state

Reservation Roads		construction	
Private Industry	**Housing Type**	**Data Available**	**Geographic Basis**
RS Means Construction Cost Data	all construction	labor & materials	metropolitan areas
Institute of Real Estate Management	multifamily units, including some subsidized	operating costs	metropolitan areas
Whitestone	multifamily and 50 other building types	maintenance & repair costs	metropolitan areas, climate zones
ACCRA Cost of Living Index	upscale single family homes	cost of living	metropolitan areas

Table 7-1: Alternative Data Sources

Data Sources Evaluated

There are a myriad of data sources available from HUD, other Federal agencies, and private entities. These include data related to housing costs, as well as other data that reflect geographic differences in cost. This section briefly examines alternative data sources. It does not examine any one-time data collections, even when they addressed housing operating costs.[34] Table 7-1 shows the data sources evaluated for their potential to provide a location adjustment to housing operating costs, and a brief summary describing their uses or limitations, follows. Data sources included information collected by HUD, information collected by other Federal agencies, and data from private organizations.

HUD Data

MIRS Data

Prior to NAHASDA, HUD collected detailed operating cost data from tribes on Form 52599 and maintained it in a database called Management Information Retrieval System (MIRS). While these data are extremely suitable in terms of properties and categories, they are only available before FY 1996. The MIRS data show operating costs that reflect the amount of money allocated to the tribe under the PFS, rather than the actual operating costs. Since funding under the PFS was based on AEL, MIRS data do not differ substantially from AEL data. This makes the data unsuitable as a substitute for AEL.

[34] AARP's Public Policy Institute reported on operating costs of Section 202 Elderly Housing projects and reported a 1999 national average operating cost of $6,293 per unit per year. This is substantially higher than the $5,499 per unit per year in 1988. See Heumann, L., K. Winter-Nelson and J. Anderson, The 1999 National Survey of Section 202 Elderly Housing, Washington, D.C., AARP, January 2001, p. 81.

Annual Performance Report

Under NAHASDA, tribes receiving IHBG funds must submit an APR each year that documents progress towards the IHP. (The IHP is also an annual document.) These data are collected and maintained in a database by HUD. While the properties covered include the 1937 Act units, the format of APR data makes it unsuitable for use as actual data on operating costs, or to generate an index of local costs.

The structure of the APR makes it difficult to use in tracking annual operating costs. Expenditures are tracked by grant rather than by the fiscal year in which they are spent. Expenditures reported on the Fiscal Year 2006 APR, for example, will list all expenditures to date for each grant (e.g. FY 2003, FY 2004, and FY 2005 grants). Nowhere in the APR is there a report of funds spent from all grant sources in FY 2005. Rather, the APR shows the amount of funds spent cumulatively in each open grant, allowing a quick overview of the remaining funds available in each grant. For that purpose it is structured well; however, it does not track annual costs.

Annual costs can be extracted from this cumulative data by comparing reported cumulative expenditures for the current year with the reported cumulative expenditure from the previous year for each grant. The difference between these amounts should isolate out the current year expenditure only.

A second barrier to the use of APR data in identifying the costs of operating 1937 Act units lies in its combination of expenses of all programs in many cost categories. The APR is designed to track spending from each open grant in a number of broad cost categories: modernization and operating costs for 1937 Act units, development, housing services, housing management services, crime prevention, model activities, and planning and administration. This structure is not suitable for tracking annual operating costs on LR and MH units. The line item labeled as “operating” costs for 1937 Act units are clearly defined as exclusively in support of 1937 Act units, but costs reported here do not distinguish between LR and MH units. The other categories, such as housing services, housing management services, crime prevention, and planning and administration, include costs attributable to 1937 Act units aggregated together with costs of other housing programs. This structure makes it impossible to identify the total costs of operating units from 1937 Act projects. APR data are not appropriate for replacing AEL data.

Performance Tracking Database

A FirstPic team has worked side-by-side with ONAP Area Administrators and senior staff to design a user-friendly system to capture key program and performance data. The result of this partnership has been the ongoing design, development, and implementation of a data system that captures critical ONAP program information and facilitates internal and external reporting, utilizes (to the greatest extent possible) existing source data and datasets, and is flexible and can serve as a platform for future database application enhancements and modifications.

A system anchored around three major ONAP modules—Grants Management (GM), Oversight/Enforcement (GE), and Performance Measures (including Annual Performance Report—APR data) has been the result. This is known as the Performance Tracking Database (PTD).

Grants Management source program data include: CGP (Comprehensive Grant Program), CIAP (Comprehensive Improvement Assistance Program), COHS (County Organized Health System), DEP (Drug Elimination Program), EDSS (Economic Development and Supportive Services), ESG (Emergency Shelter Grants), HOME (HOME Investment Partnerships Programs), HOPE (Housing Opportunities for People Everywhere), ICDBG (Indian Community Development Block Grant), IHBG (Indian Housing Block Grant), RHED (Rural Housing and Economic Development), ROSS (Resident Opportunity and Self-Sufficiency Program), SPG (Shelter Plus Care), TIHD (Traditional Indian Housing Development), TOP (Tenant Opportunity Program), and YSP (Youth Sports Program).

The Oversight/Enforcement (GE) module data include: audit findings, monitoring logs, enforcement logs, Annual Status & Evaluation Report (ASER) and APR tracking logs.

The Performance Measures module primarily includes APR data such as Table I: Financial Resources and Accomplishments; Table II: Allocation of Funds for NAHASDA Activities; and Table III: Periodic Monitoring of Assisted Units. Selective *Line of Credit Control System* (LOCCS) data is automatically imported into the core data set.

The application has the typical Access structure—a back-end that contains the data tables and a front-end (graphical user interface-GUI) that includes the data entry forms, reports, and queries. In addition, many of the programming components are on the front-end, thus affording increased system security and file integrity.

This is a sophisticated database system. However the data on operating costs for the 1937 Act units are limited to those in the previously discussed APR data. Should HUD require detailed reporting on the costs of LR and MH units in the future, then the PTD would be a logical place to keep the data.

Annual Adjustment Factor (AAF)

AAFs are rent adjustment factors developed by HUD for annually adjusting FMR values for locations that have not had a survey to establish current year FMR values. AAF values are based on CPI data on changes in residential rent and utility costs. HUD publishes the AAFs annually in the Federal Register. Therefore AAFs provide information concerning location differences in inflation of housing rental prices, but provide no information about the location differences in housing operating costs.

Project Expense Level

HUD's new formula for funding operating costs of public housing agencies uses a geographic coefficient and other factors to determine a per unit PEL. The geographic coefficients were generated using the Harvard Study regression model based on FHA insured properties. Geographic coefficients are identified for Metropolitan Statistical Areas (MSAs) and for the nonmetropolitan area of each State. The geographic coefficients were based on the for-profit FHA insured properties only, and geographic areas with insufficient properties were grouped together. If there were not at least 25 for-profit properties in the nonmetropolitan part of a State, that rural area was grouped together with rural areas of other States in the same Census region. Coefficients for the nonmetropolitan areas range from 13 percent in Alaska and 12 percent in Maine to -30 percent in several States.

The relatively broad groupings of data in rural areas means that these data are not likely to be geographically detailed enough for use in the IHBG formula. Since rural areas of different States are grouped together in some areas, they cannot capture differences in local area costs between areas.

Other Government Data

Department of Interior Quarters Management Program

The Quarters Management Program, run by the Department of Interior's National Business Center, sets rents for housing for Federal employees for housing units owned by the Federal Government. In essence, they conduct market surveys throughout the country to set what could be considered a "fair market rent" for each unit, depending on its location and characteristics. Because several Federal agencies employ and house staff in remote areas, the program has developed methods for addressing costs for housing units in small towns and in areas remote from any town. The information the Quarters program provides is similar to FMR.

The Quarters program includes 20,000 government-furnished quarters owned by 20 agencies. Examples of some participating agencies are: Indian Health Services, Bureau of Indian Affairs, National Park Service, and Bureau of Land Management. The Quarters Management Information System (QMIS) uses market based rental rates derived from regional rental surveys that are conducted every 3 to 5 years. The community housing surveys are based on unsubsidized, year-round rental housing built to HUD standards. Rental samples that are obviously non-comparable are removed before analysis. The survey records the same information about the comparables as is collected on the Quarters: size, age, rooms, bedrooms and bathrooms, condition, etc.

According to OMB Circular A-45, normally the closest community to Government quarters sites with the latest decennial census population of 1,500 and having a doctor and dentist are surveyed for rental costs.

The Quarters data do not provide operating costs, but might be a suitable alternative to the FMR in the IHBG formula. They provide similar type information as the FMR but incorporate adjustments to more remote rural areas.

Internal Revenue Service Low Income Housing Tax Credit Program

Since 1986 the Federal Low Income Housing Tax Credit program (LIHTC) has become a major resource for the creation and rehabilitation of housing affordable to lower income households. Based upon Section 42 of the Internal Revenue Code, the LIHTC program encourages private individuals and corporations to invest cash in housing affordable to lower income people by providing a dollar-for-dollar reduction in Federal taxes they owed on other income. While housing tax credits are federal, each State has an independent agency (generally called a housing finance agency, or HFA) that decides how to allocate their share of federal housing tax credits. Some tribes/TDHEs have utilized Federal housing tax credits to increase rental and lease-purchase housing. HUD has an LIHTC database that describes projects, but does not describe operating costs. There is no central database maintained on LIHTC operating costs, although HFAs do apparently obtain operating cost data for their State.

USDA 515 Program

The USDA Section 515 Rural Rental Housing Program funds mortgage loans to private or public enterprises to build or rehabilitate affordable rental housing in rural areas for very low-, low-, and moderate-income families; the elderly; and persons with disabilities. Loans are for up to 50 years at an effective 1 percent interest rate. Loan recipients must provide annual operating costs. Currently 75 percent of occupants of existing projects must have an income that categorizes their households as very low income. There are four variations of the Section 515 loan program. They are Cooperative Housing, Downtown Renewal Areas, Congregate Housing or Group Homes for Persons with Disabilities, and the Rural Housing Demonstration Program.

Recipients annually report expenditures on Form RD3560-7, Multiple Family Housing Project Budget/Utility Allowance. This form obtains a report of total expenditures, as well as expenditures in several subcategories, e.g. such as administration. Table 7-2 shows the primary and secondary cost categories used on Form RD3560-7.

Locations eligible for USDA's 515 program units include rural areas with populations up to 20,000, and places or towns that are not associated with an urban area. Areas with populations over 10,000 are only eligible if they meet additional criteria indicating that they are "rural in character" or if they have a serious lack of mortgage credit (although this criteria is rarely applied).[35]

[35] Rural Housing Service: Overview of Program Issues, Statement of William B. Shear, GAO, in testimony before the Subcommittee on Housing and Community Opportunity, Committee on Financial Services, House of Representatives, March 10, 2005. GAO-05-382T.

Primary Cost Categories	Subsidiary Cost Categories
Operating and Maintenance	1. Maintenance & Repairs Payroll
	2. Maintenance & Repairs Supply
	3. Maintenance & Repairs Contract
	4. Painting And Decorating
	5. Snow Removal
	6. Elevator Maintenance./Contract
	7. Grounds
	8. Services
	9. Furniture & Its Replacement
	10. Other Operating Expenses
Utilities	1. Electricity
	2. Water
	3. Sewer
	4. Fuel (Oil/Coal/Gas)
	5. Garbage & Trash Removal
	6. Other Utilities
Administration	1. Site Management Payroll
	2. Management Fee
	3. Project Auditing Expense
	4. Project. Bookkeeping/Accounting
	5. Legal Expenses
	6. Advertising
	7. Phone & Answering Service
	8. Office Supplies
	9. Office Furniture & Equip.
	10. Training Expense
	11. Health Ins. & Other Benefits
	12. Payroll Taxes
	13. Workmen's Compensation
	14. Other Administrative Expenses
Taxes and Insurance	1. Real Estate Taxes
	2. Special Assessments
	3. Other Taxes, Leases, Permits
	4. Property & Liability Ins.
	5. Fidelity Coverage Ins.
	6. Other Insurance

Table 7-2: Operating Cost Categories for USDA 515 Housing

These 515 data appear suitable for consideration as a location adjustment factor in IHBG because they focus on rural counties and low and very-low income households, similar to residents of 1937 Act units. In addition, the data is comprehensive in covering cost categories similar to the ones in this study. These data are discussed in greater depth in the next section.

USDA 514 Program

USDA's Section 514 Farm Labor program collects operating cost data, but these data are not suitable to indicate local operating costs for tribes/TDHEs because this program is targeted to meet the housing needs of a very specific population with distinct housing needs. In addition, projects in non-rural areas are eligible for these loans. USDA's Rural Housing Service also funds the Section 538 Loan Guarantee program, but operating cost data are not collected for this program.

Bureau of the Census, Economic Census

Every 5 years the U.S. Bureau of the Census conducts a detailed survey of business activity. The last Economic Census was in 2002. Data is published using the North American Industry Classification System (NAICS). In that system Real Estate and Rental and Leasing is a major category (NAICS 53). Data on total payroll and number of employees is generally available for all counties under this NAICS category. This can provide an estimate of the annual payroll cost for an individual in most counties. There are counties for which no data is available when the number of firms is small as Census seeks to maintain the privacy of respondents. The NAICS subcategories of Real Estate (NAICS 531) and within that of Real Estate Property Managers (NAICS 53131) may provide good county data on for labor costs in many Indian Country counties. However, this data source seems too narrow to be used as a replacement for AEL.

Bureau of Labor Statistics

The U.S. Department of Labor (DOL) provides information on wage rates for locations throughout the Nation in two ways. First, the Davis-Bacon Act as amended, requires that each contract over $2,000 to which the United States or the District of Columbia is a party for the construction, alteration, or repair of public buildings or public works, shall contain a clause setting forth the locally prevailing wages and fringe benefits paid on projects of a similar character. The Davis-Bacon Act directs the Secretary of Labor to determine local prevailing wage rates. The Wage and Hour Division of the U.S. Department of Labor determines prevailing wage rates to be paid on federally funded or assisted construction projects.

Second, the Bureau of Labor Statistics (BLS) of DOL and the State Employment Security Agencies (SESAs) cooperatively produce the Quarterly Census of Employment and Wages (QCEW). The QCEW program produces a comprehensive tabulation of employment and wage information for workers covered by State unemployment insurance (UI) laws and Federal workers covered by the Unemployment Compensation for Federal Employees (UCFE) program. Publicly available files include data on the number of establishments, monthly employment, and quarterly wages, by NAICS industry, by county, by ownership sector, for the entire United States. These data are aggregated to annual levels, to higher industry levels (NAICS industry groups, sectors, and supersectors), and to higher geographic levels (national, State, and MSA.

While the Davis-Bacon wage determinations are generally limited to construction labor, the QCEW broadly represents all wages subject to Unemployment Compensation. However, The NAICS subcategories of Real Estate (NAICS 531) and within that of Real Estate Property Managers (NAICS 53131) may provide good county data on for labor costs in many Indian Country counties. However, similarly to the data from the Economic Census, this data source seems too narrow to be used as a replacement for AEL.

Bureau of Indian Affairs, Indian Reservation Roads

The Federal Highway Administration (FHWA) maintains a database of "Annual Price Trends for Federal-Aid Highway Construction." This provides construction cost indices by State, with 1987 as the base year. The Bureau of Indian Affairs (BIA) funds highway construction on reservations as a part of the Indian Reservation Roads (IRR) program. BIA receives funds for the IRR program by distribution from the FHWA. BIA uses the FHWA "Annual Price Trends" report for the relative need formula distribution to tribes.

The Annual Price Trends reports show considerable change over time. For example, California had a 2005 index of 300, indicating construction costs were three times as expensive as in 1987. Differences between States can also be observed, for example New Mexico had a 2005 index of 128, indicating that construction costs were only 28 percent greater than in 1987. However, FHWA is very explicit about the kinds of comparisons that can be made with this data. The data is not valid for comparison between States. The base for each State reflects a particular market basket of quantities and costs that are unique to highway construction in that State. This is not an appropriate set of data for use as a location adjustment factor in the IHBG formula.

Private Sector Data

RSMeans Construction Cost Data

RSMeans is arguably North America's leading source of construction cost information. A sub-unit of Reed Construction Data, RSMeans provides project-based cost information that helps owners, developers, architects, engineers, contractors and others to estimate the cost of both new building construction and renovation projects. Provisions are made for estimating costs on a square foot basis, on the basis of building systems, and on a quantity of material basis. National average values are provided together with current multipliers for location.

HUD uses the RSMeans data in the development of TDC values. The validity of this was recently verified by Steven Winter and Associates. However, the data for the RSMeans' location indices come from construction and not operation of buildings. Also the data come primarily from large scale construction in metropolitan areas.

These data do not seem appropriate as a representation of the non-construction costs of operating existing housing, especially when these units are operated in rural and remote areas.

Institute of Real Estate Management

The Institute of Real Estate Management (IREM) has provided income/expense data for over 50 years. What was initially a brief survey of 200 apartment properties in the private market has developed into an annual data collection effort encompassing almost 10,000 multifamily housing properties in the private and public sectors. IREM began to publish statistics on federally assisted apartments in 1986. This includes apartments receiving subsidies under the Federal 202, 221(d)3, 236, and Section 8 programs. The income and expense data is reported for the individual Federal programs at the national, IREM region, and metropolitan levels.

IREM describes the HUD chart of accounts as "the single most widely utilized system in the industry" and follows cost categories in the HUD Chart.

The recent volatility of utility expenses has led IREM to provide data on buildings which heat the individual residential units separately from projects which heat only common areas.

IREM uses medians and ranges to describe income and expense. The data are intended to provide a benchmark against which private market property managers, owners, developers, and others can make comparisons. IREM provides median and range values for regions and property types. IREM believes that the median describes the "typical" expense and that the range reflects the upper and lower limits. The median is used as a way to avoid the influence that exceptionally high or low figures for individual projects (outliers) have upon the calculation of the average. Outliers are particularly problematic for small samples where one property with extraordinary costs or income could significantly increase or decrease the calculated average.

IREM reviews data submitted to them and eliminates properties that fall outside the normal operating expense range. However the use of the median provides further protection from unidentified errors or extremes.

While the IREM data have details on the costs of operating various public housing units, the projects are typically located in metropolitan areas and so are of limited use as a geographic index for Indian housing operating costs. However, they may offer useful information on changes in cost over time. The inflation data used in the IHBG formula show an increase from October 1995 to October 2003 of 124 percent. As Figure 7-1 shows, this is more than the increase that the IREM data shows for low-rise units, but less than the increase shown for garden apartments and low-rise developments with more than 25 units. However the figure also shows that the IREM data tracks the inflation values used in the IHBG formula.

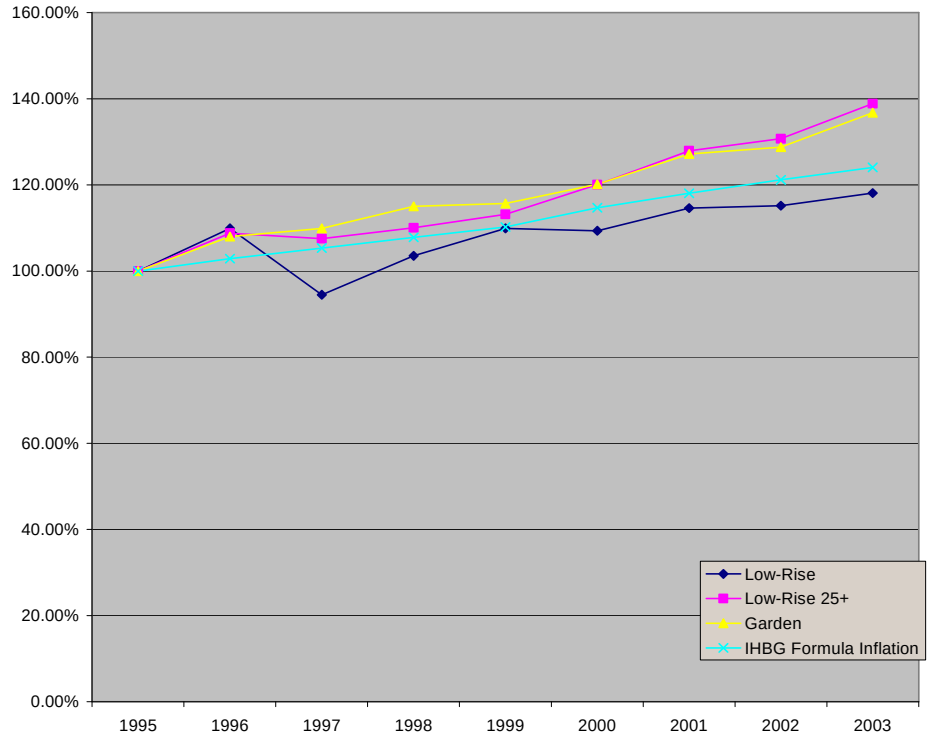

Figure 7-1: Institute for Real Estate Management National Trends in Operating Costs of Assisted Housing

Whitestone Building Maintenance and Repair Costs

The Whitestone Building Maintenance and Repair Cost Reference is an annual publication of maintenance and repair costs for 51 building types across the Nation. The Whitestone Cost References present forecasts for building maintenance and repair costs for 210 metropolitan areas. It does not include data from rural areas, where most of the 1937 Act units are located. Whitestone Cost References offer some insight into factors affecting maintenance costs. They describe maintenance and repair costs by building system, enclosure, HVAC, etc. and variation over a 50-year period. Their research shows that warm climates generally have lower maintenance and repair costs than cold climates, because the useful life of materials and equipment is longer in warm climates.

Whitestone provides data for three repair and maintenance indices for 210 metropolitan areas: the Total Average Cost index, the PM (preventive maintenance) and Minor Repair index, and the Renewal and Replacement index. In addition average wage rates for trades typically involved in building maintenance and repair are also reported. Figure 7-2 shows an example of using the metropolitan are wage rates for a maintenance carpenter State average. The pattern of wages in the figure agrees with expectations based upon the AEL, FMR, and TDC figures in Chapter IV. However, the data is not representative of the rural counties in which much 1937 Act housing is found. For that reason it is not seen as a good alternative for a location factor.

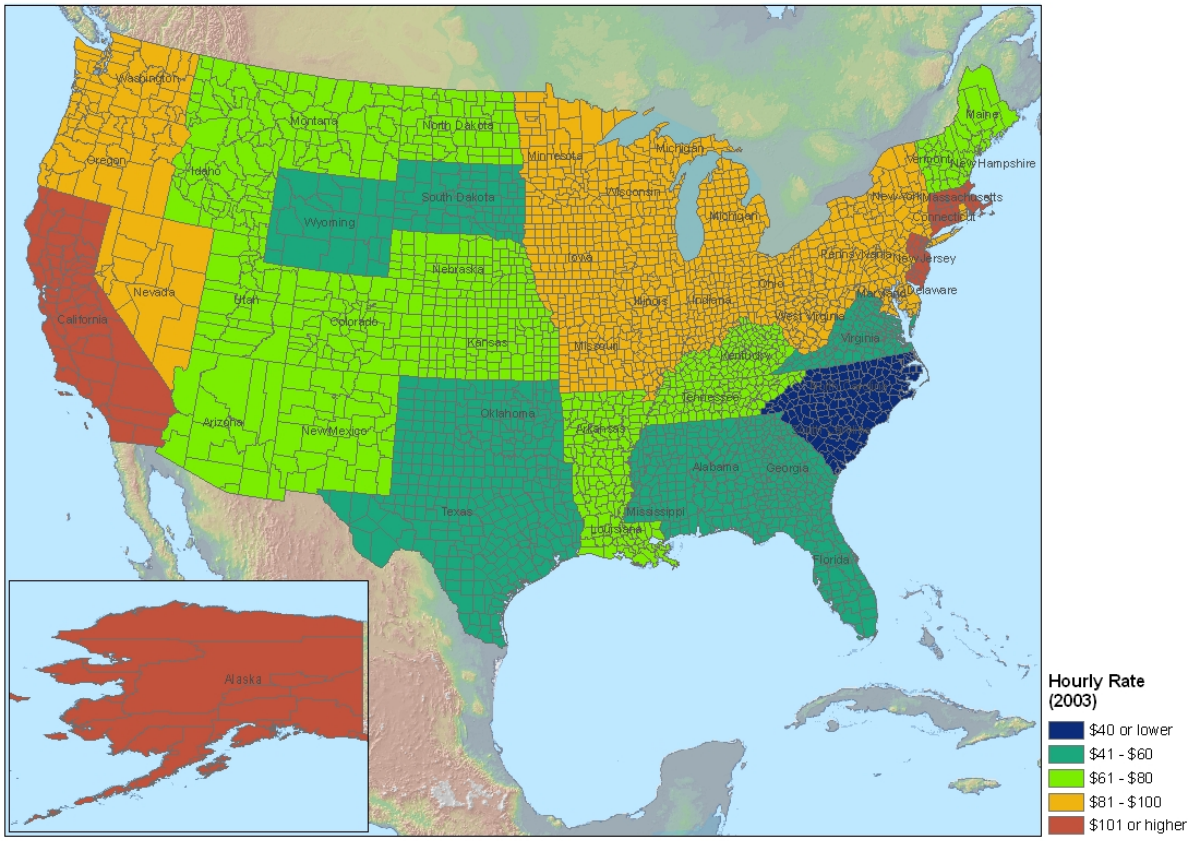

Figure 7-2: State Average Rates for Maintenance Carpenters, Whitestone, 2003

ACCRA Cost of Living Index

The ACCRA Cost of Living Index, originally developed by the American Chamber of Commerce Researchers, now called the Council for Community and Economic Research, is the most widely used series for comparing cost of living in different areas. It is a type of geographic consumer price index, and, as such, does not include costs of labor or non-household supplies, such as building materials. In addition, it focuses on metropolitan areas, including only cities with populations of 50,000 or more. It also typically focuses on pricing a group of items typical of those consumed by upper income households. This deliberate emphasis makes it unsuitable for use as a local cost index for rural housing operating costs.

Key Points

Alternative data sources could provide a useful alternative to AEL data in the IHBG formula. To improve on AEL, alternative data sources need not exactly represent the costs of operating 1937 Act housing, but must be consistent, represent the areas in which 1937 Act

housing units are located, and have general comparability or correlation to Indian housing costs.

A number of HUD, other Federal, and private sources were evaluated for possible use as alternative data to provide a geographical cost index for use in the IHBG formula.

Data sources were evaluated based on the quality and compatibility of cost data and the comparability of the housing stock, particularly in regard to location. Data from the USDA 515 program meets the criteria and is a valuable source of geographic information because unlike most available data, the data is from the costs of operating rental housing in rural areas.

VIII. Review of USDA 515 Data

This chapter reviews the 515 database in detail, evaluating its suitability for use as an alternative data source in the IHBG formula. The first section of the chapter describes the data and the housing units it represents, comparing them to 1937 Act units. The next section presents geographic distributions and ways to assign 515-based values to tribes. In the final section, ways in which a 515 adjustment factor could be used in the IHBG formula are reviewed.

Description of 515 Data

The most promising set of data evaluated to stand in as an operating cost adjustment factor comes from the USDA Section 515 Rural Rental Housing program (515). This program, which funds loans to private or public enterprises to build or rehabilitate affordable rental housing in rural areas, requires annual reporting of detailed operating cost data.

Participants in the 515 program are required to report expenditures annually on Form RD3560-7, Multiple Family Housing Project Budget/Utility Allowance. An examination of the form and a sample data file indicated that 515 data files contained cost information in categories similar to the HUD Chart of Accounts and IREM reports, e.g. maintenance supplies, maintenance payroll, site management payroll, health insurance and other benefits, etc. (See Table 7-2 in Chapter VII for details.) Through a formal inter-agency request from HUD to USDA, the team received detailed cost data files from 2002 to 2004, the period used to study operating costs of tribes/TDHEs. This request was fulfilled and database was made available for all counties in States with tribes and TDHEs.

Operating cost data from the USDA 515 program have two characteristics that make it suitable for use as a local operating cost adjustment factor. First, 515 data are based upon actual operating costs. Second, 515 units are located in rural areas, where comprehensive nation-wide information on operating costs and other costs of living is extremely scarce.

The USDA 515 program is the only source of consistently collected data on housing operating costs in rural areas that has been identified. Most Federal housing programs operate primarily in urban areas. Operating costs of public housing facilities located in urban areas are likely to have very different patterns, e.g., labor costs are typically higher in urban areas, while the cost of supplies and materials in rural or remote areas may be higher because of transportation costs and time required for acquisition.

Some 515 units are located on reservations and operated by tribes. However, Figure 8-1 shows that the geographic spread of 515 projects does not cover all locations with tribes with 1937 Act units. This is particularly true in Alaska, where 11 out of the 14 regional corporations have three or fewer 515 projects within their formula area counties. Approximately one-third of tribes/TDHEs in the Southwest and Southern Plains regions each have three or fewer 515 projects in their counties. In the other regions, at least 90 percent of tribes have four or more 515 projects located within their formula area counties.

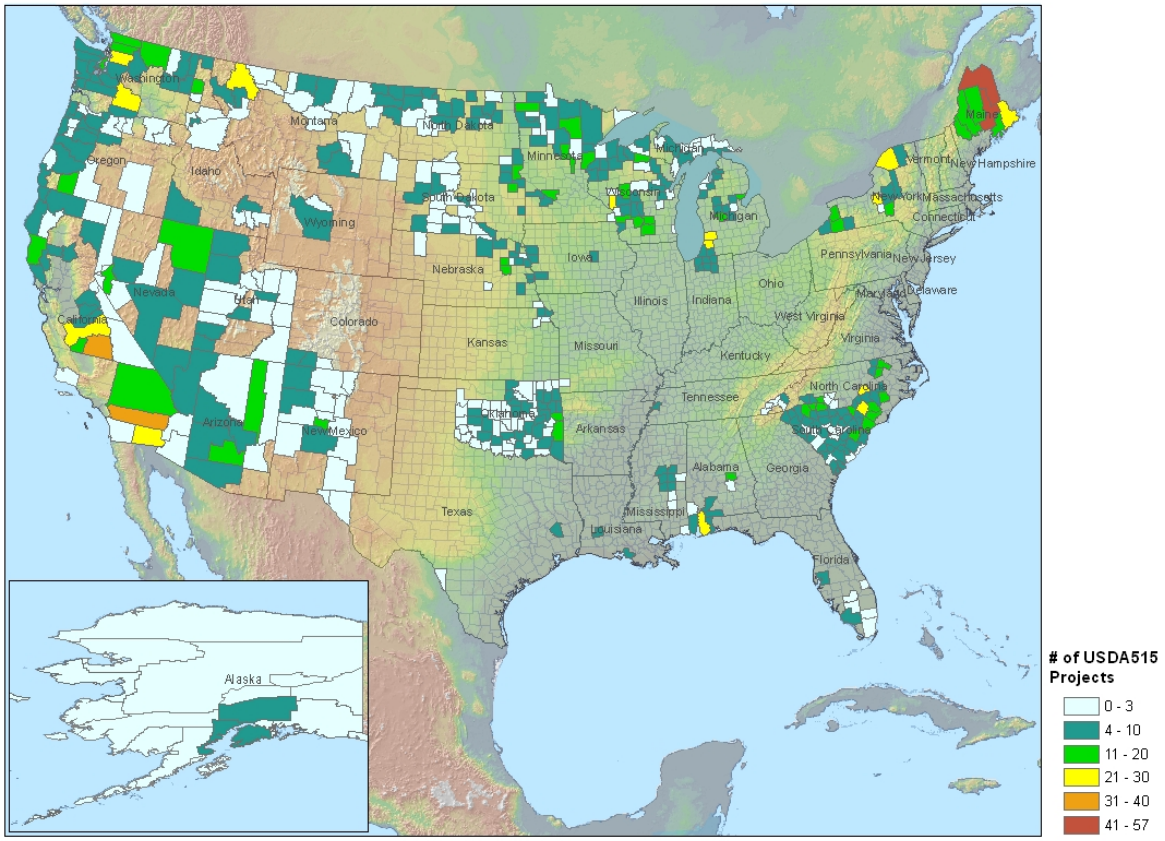

Figure 8-1: Distribution of 3,236 USDA 515 Projects in Counties with 1937 Act Units

A comparison of unit and building characteristics shows that the age of 515 housing units is roughly comparable to 1937 Act units in Indian Country. A review of DOFA dates for 1937 Act Current Assisted Stock shows that most MH units currently under management, approximately 89 percent, were built in the 1980s and 1990s. (Most MH units older than 1980 have been conveyed.) LR units include older units, with 35 percent of LR units built before 1980, and 63 percent built during the 1980s and 1990s. A comprehensive property assessment report for the 515 program indicates an average property age of 23 years.[36] This would indicate an average 515 construction date of 1980. This suggests that 515 units are from the same time frame as LR and MH units, and are likely to share construction practices that were common at that time.

The 515 and 1937 Act programs do differ in unit and building size. Units in the 515 program are typically one or two bedroom apartments, located in multi-family buildings of two to forty units. The 1937 Act units in Indian Country include a wider range of units, with MH units typically two- to four-bedroom single family homes. LR units may also include two to four bedrooms, and their building types range from single family homes and duplexes to

[36] Rural Rental Housing—Comprehensive Property Assessment and Portfolio Analysis. Final Study Report. November 2004, p.2. ICF Consulting, prepared for the U.S. Department of Agriculture Rural Development.

multi-family buildings including four to 25 units. The differences in unit and building type mean that 515 operating costs cannot be used as a direct proxy for the costs of operating 1937 Act units. However, the consistency in types of 515 units operated across the Nation indicate that these data can be very useful as an index showing geographic cost differences between different locations.

Concern could be expressed about the quality of 515 data because of the amount of unmet rehabilitation needs in the 515 stock. The USDA Rural Development office has identified this as a major threat to the rural housing stock unless additional funds are made available.[37] The implication is that reported operating costs for the 515 data do not represent the full cost of maintaining and upgrading these units for long-term use. The 515 cost data, then, cannot be used as an estimate of the actual cost of operating decent, affordable housing, either for the 515 rural housing stock or for 1937 Act units and other housing stock in Indian Country. For the purposes of this study—identifying geographic adjustments to operating costs—this underfunding of maintenance may have the effect of understating local operating cost variation and therefore in understating local operating cost differences across locations. That is, if maintenance activities cost more in remote areas than in areas with good access to urban markets, under-maintenance will result in understating these cost differences.

The USDA provided an electronic file with data obtained for FY 2002, FY 2003, and FY 2004 for States with tribes/TDHEs with 1937 act units. [38] After removal of non-relevant projects, extreme values, and other data cleaning procedures, the database consisted of 10,632 projects. The total number of projects in tribal formula area counties is 3,232. The final database of 515 program data includes average per unit cost data from 3,232 projects. Of these, 84 percent are based on operating cost data from all 3 years, 2002 through 2004. An additional 10 percent are 2-year averages, and the remaining ones are from a single year of costs.

In summary, the use of 515 operating cost data has two characteristics that make it suitable for use as an alternative to AEL data. First, unlike public housing, 515 properties are located in rural counties rather than in large urban areas. While they are multi-family properties, the scale of these properties is much smaller than public housing, typically ranging from two to

[37] Ibid.

[38] The data files supplied by USDA contained 1,538,938 lines of data, with separate lines for each cost account by project and year. These records were consolidated into 31,376 lines, with a separate record for each project and year. Cleaning procedures included the removal of projects that are not suitable for comparison with 1937 Act units, such as Farm Labor projects and congregate housing, or group homes. Lines of data with evident error were also removed, such as totals of zero and duplicate lines of data for a single project and year. Negative line item costs, indicating a credit, were set to zero to remove potential undercounting of current costs. Data cleaning also included the removal of lines of data with presumed error or bias, represented by project costs with extreme values. Extreme values of total per unit costs of over $10,000 per year and under $500 per year were removed after examination of the distribution of total costs. Finally, annual per unit costs were examined to see if they were extreme compared to State distributions or other annual costs for the same project. Lines of data with total per unit costs that were more than three standard deviations from the State average and with a ratio to other annual costs for the same project greater than three standard deviations from the mean were also eliminated. These data review procedures were to remove any potential bias introduced by unusual circumstances or reporting errors resulting in extremely high or low reported per unit costs.

forty units. Second, the data are a consistent, annually collected source of operating costs. They are collected using a standardized form. This consistency meets the purpose of the adjustment factor, which recognized that costs vary by location and are not the same in all places.

Assignment of 515 Operating Cost Data

This section looks at ways to assign 515 values to tribes. Two levels of geographic grouping—State and county—are examined here. In addition, it reviews two methods for assigning values to tribes with limited 515 project data available in their immediate locale.

Three criteria are used in assessing these 515 value assignment methods. First, the geography should be as specific as possible, meaning the data should reflect as closely as possible the tribes own local area geography. Second, sufficient data should be available at the chosen geographic level. For our purposes, we used data when four or more 515 projects were available in the geographic level. This number is considered to be sufficient since earlier data cleaning procedures removed projects with values that had large deviations from their State average. Third, in cases where there is not sufficient 515 data in a tribe's own geography, we devised strategies to give these tribes the closest possible geographic match to available data.

In evaluating geographic assignment, one other piece of information to consider is the ratio of the highest value to the lowest. The higher this ratio, the greater the impact of the local area cost adjustment factor. Measures with relatively low ratios, signifying relatively little cost differentiation, will mean that cost adjustment factor used in the formula has a more limited effect on funding allocations to tribes.

State Level Data

State level coverage of 515 data is good for all tribes. Individual States containing tribes with 1937 Act units had as few as 27 USDA projects (Alaska) to as many as 596 (North Carolina).

Average operating costs for all States with 1937 Act units is shown in Figure 8-2.

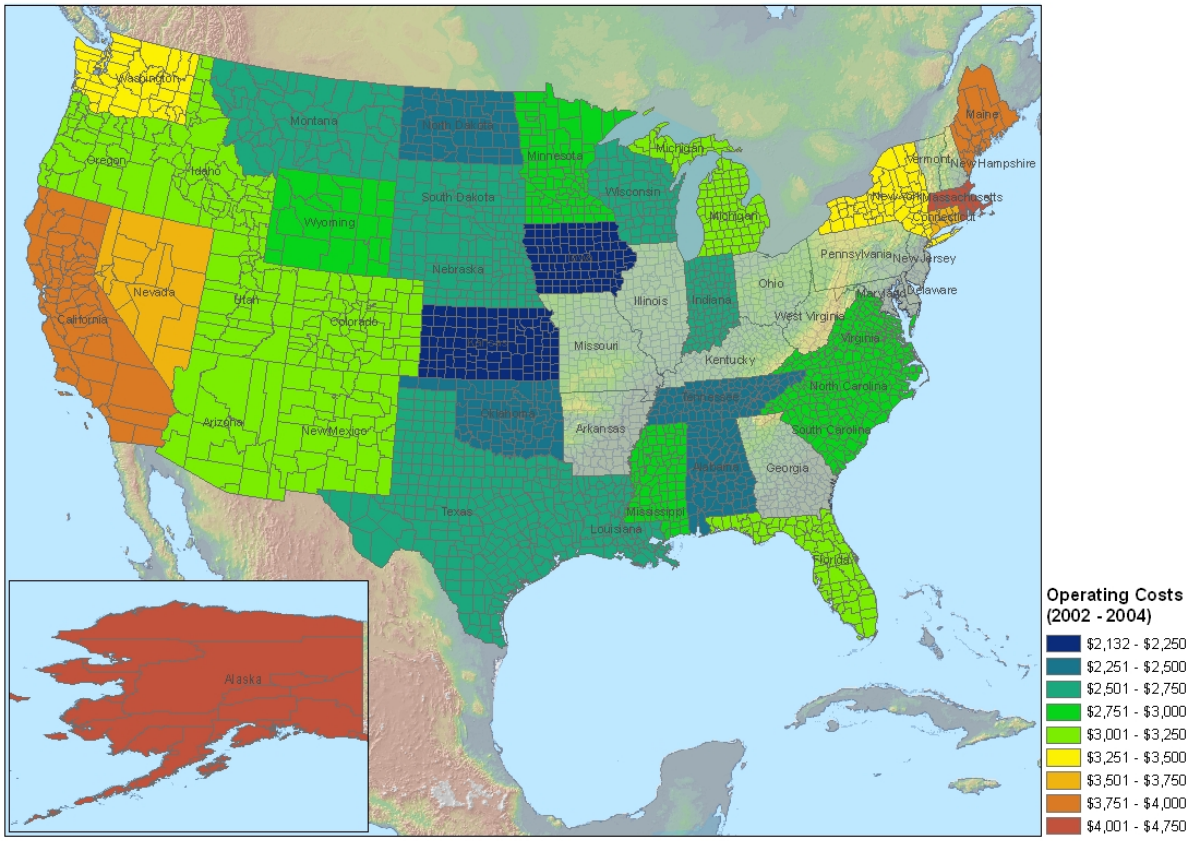

Figure 8-2: Average Operating Costs for 10,632 USDA 515 Housing Projects, by State, 2002-2004

Iowa has the lowest State average annual USDA operating cost of $2,132 per unit, based upon 602 projects. Kansas was close to this with an average annual operating cost of $2,235 per unit, based upon 337 USDA projects. At the other end, Alaska has the highest average annual operating cost of $4,584 per unit, based upon 27 projects. These State patterns seem to confirm some expectations about the high and low cost in certain regions of the country. The ratio between the highest and lowest cost States is only 2.15. A location adjustment that used State averages would reduce the impact of the location adjustment factor in the IHBG formula

One other cost data grouping to consider at this level is the use of an individual cost category rather than total operating costs. Two cost categories were examined: maintenance and administrative costs. State averages of these two individual cost categories vary more than the total annual operating cost varies. State average administrative costs range from $460 per unit annually in Iowa to $1,507 in California. The ratio between these two is 3.3. State average maintenance costs range from $527 in North Dakota to $1,578 in Massachusetts, a ratio of 3.0. Of these, maintenance is likely to be the better measure of local area operating costs, since maintenance is a core mission for all LR units. Administrative costs are more

subject to local policy and to variations in accounting and classification practice, as described earlier.

County Level Data

County level data shows a more finely grained picture of operating costs of 515 projects. Figure 8-3 shows average operating costs in counties located in States containing tribes/TDHEs with 1937 Act units.[39] There are few clearly defined breaks in the data at State lines, signaling sensitivity to the specific locale rather than to political groupings.[40]

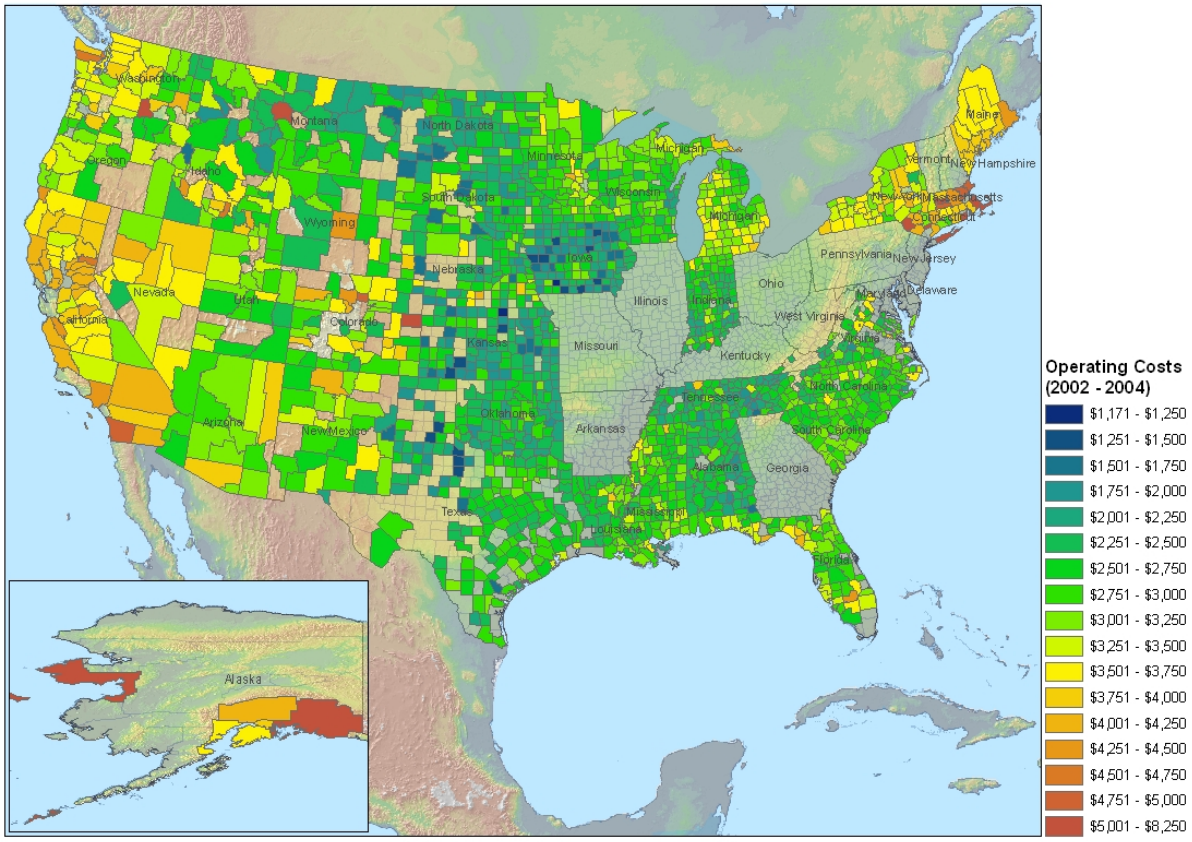

Figure 8-3: Average Operating Costs for USDA 515 Housing Projects by County, 2002-2004

From the county data, values were assigned to tribes by averaging the cost data from all projects in all counties in which the tribe has Formula Area. This grouping follows each tribe's total geography most closely.

Tribes/TDHEs with overlapping Formula Areas were not grouped by the aggregate overlapping Formula Area. As a result, the tribe/TDHE 515 operating cost values cannot be

[39] Formula areas may include counties or parts of counties. In this analysis, tribe 515 values include projects located in all counties in which the tribe has any formula area. If a tribe formula area includes any part of a county, 515 projects from the whole county are included in the tribe average.

[40] In contrast, FMR county level data show clear State to State differences, likely the result of rural counties in a state being assigned the FMR values of metropolitan counties.

shown on a map because tribes with overlapping areas may have different cost averages because their overall formula area may differ. The lowest total 515 operating cost value for a tribe/TDHE was $2,044 and the highest was $5,957 with a ratio of highest to lowest of 2.9.

Twenty-four percent of tribes/TDHEs with 1937 act units are located in areas that have no 515 projects. An additional 41 tribes have fewer than four 515 projects located in their Formula Area counties. Two approaches were considered for these tribes. The first, relatively simple approach is to use the State average for these tribes. Using county formula area averages combined with State averages for tribes with insufficient numbers of data sets, the ratio of highest to lowest operating cost is 2.9.

Using State averages for tribes in areas without sufficient 515 data has the effect of smoothing out cost differences in these areas. Since these areas are often the most remote, there is a concern that using State averages, which include costs from areas with closer access to markets, will underestimate costs for these tribes.

A more complex, but more precise approach is to use 515 data from adjacent counties in cases where the tribe Formula Area counties do not have sufficient data. Since this approach relies on data from geographic locations that more closely resemble the tribe's Formula Area, the values it assigns are expected to be an accurate representation of local area costs. For Alaska, tribes were assigned either an average for southeast Alaska or one for the balance of State, not including the southeast or the Anchorage area. Using this approach, all tribes have sufficient data to construct a local cost average from 515 data. The ratio of highest to lowest 515 values for tribes is 2.9.

Using county level data groupings, the ratio of the highest to lowest maintenance costs is 3.9, while the ratio of highest to lowest administrative costs is 5.6.

In summary, the goal of finding the right geographic unit to use in assigning 515 values in the formula is to maximize both geographic precision and widespread coverage of tribes. The accuracy of local area cost adjustment is best when based on sufficient data in as specific a location as possible.

515 Data in the IHBG Formula

Once a USDA 515 data value is assigned to each tribe, it can be used as a local area cost adjustment factor. This discussion examines three alternative ways to include a local cost factor based on 515 cost data. First, it could be used as a stand-alone local cost adjustment, replacing both of the currently used factors, the AEL factor and the FMR factor. Second, a 515 factor could replace the AEL factor and be used in combination with the FMR factor. Third, it could be used in the formula as a supplement to the FMR factor and the AEL factor.

The use of the USDA 515 data in the IHBG formula as a location factor would be based on a ratio, constructed the same way as the AEL and FMR: the ratio of the tribe's assigned 515 value to the weighted average of tribe costs. These tribe 515 data values are then divided by the national weighted average of tribe 515 values to produce a 515 adjustment factor for each

tribe. These location factors, labeled as USDAa, are shown in Figure 8-4, sorted by ONAP region. The figure shows how they compare to the AEL and FMR ratios.

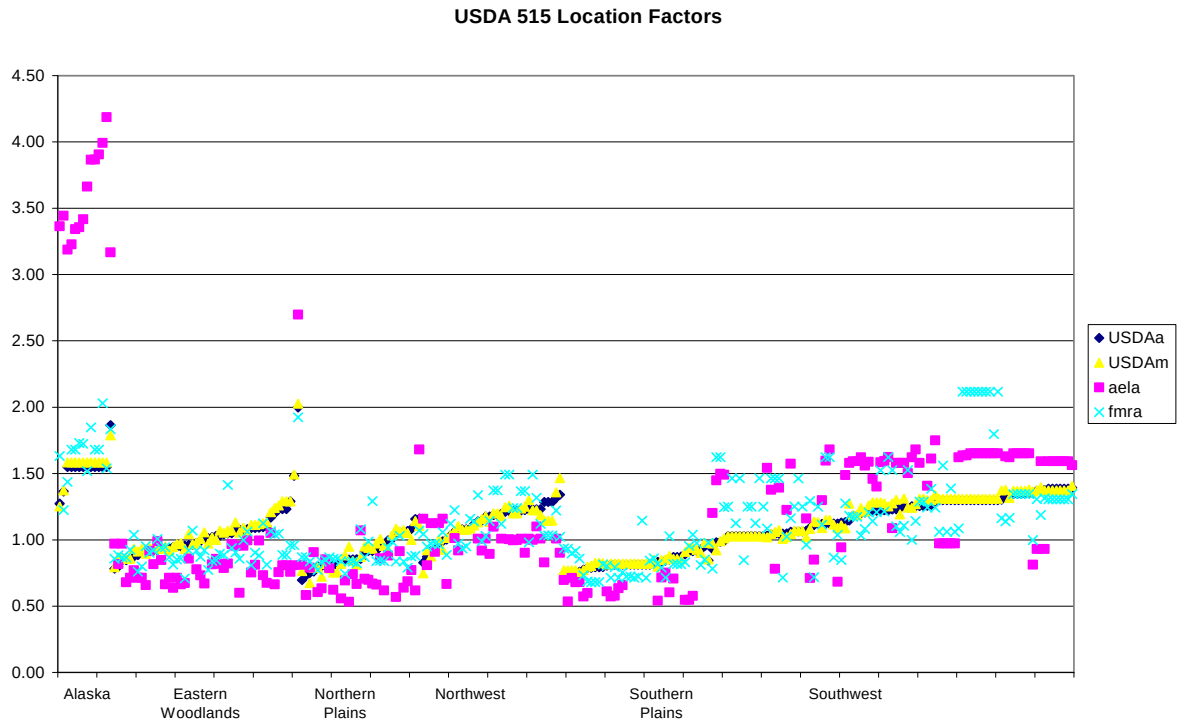

Figure 8-4: USDA 515 Adjustment Factor Compared to AEL and FMR Factors

One alternative for the IHBG formula is to use USDA 515 data as the basis for a sole local area cost adjustment factor, eliminating both AEL and FMR. Figure 8-5 shows a comparison between the current index used as an adjustment factor, AELFMR, and one based only on the USDA 515 data. It shows that most tribes would experience a change in funding, either an increase or a decrease. While this change would simplify the formula, it would reduce the per unit funding for 1937 Act housing dramatically for many tribes/TDHEs. The near universal changes, and widespread funding drops represented by this alternative, are not consistent with a stable funding situation. These changes seem contrary to the concept of being fair and equitable.

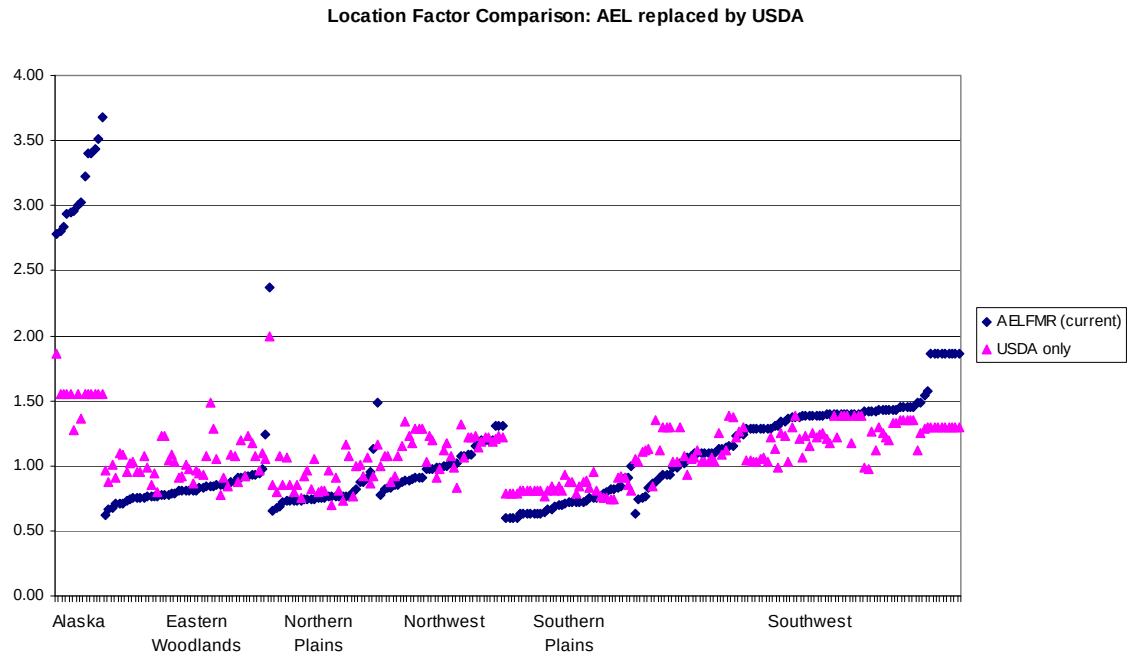

Figure 8-5: Adjustment Factor Comparison: Current and USDA Only

Another alternative is to use a USDA 515-based adjustment factor to replace the AEL factor. This approach would be inspired by a belief that the AEL is a discredited source that does not accurately represent operating costs for any tribes.

Figure 8-6 shows the difference in the current AELFMR adjustment factor and one based on FMR and USDA data. It shows that many tribes would be substantially affected, with some increasing their adjustment factor (and thus their per unit funding), while others would experience a substantial decrease in funding. The change for Alaska is particularly dramatic, with most tribes experiencing a drop in adjustment factor of around 50 percent. Overall, the differences between tribes are smoothed out, with a maximum to minimum range of per unit funding of 2.7. An index based on FMR and USDA data exhibits less cost variation between tribes than the current AELFMR factor.

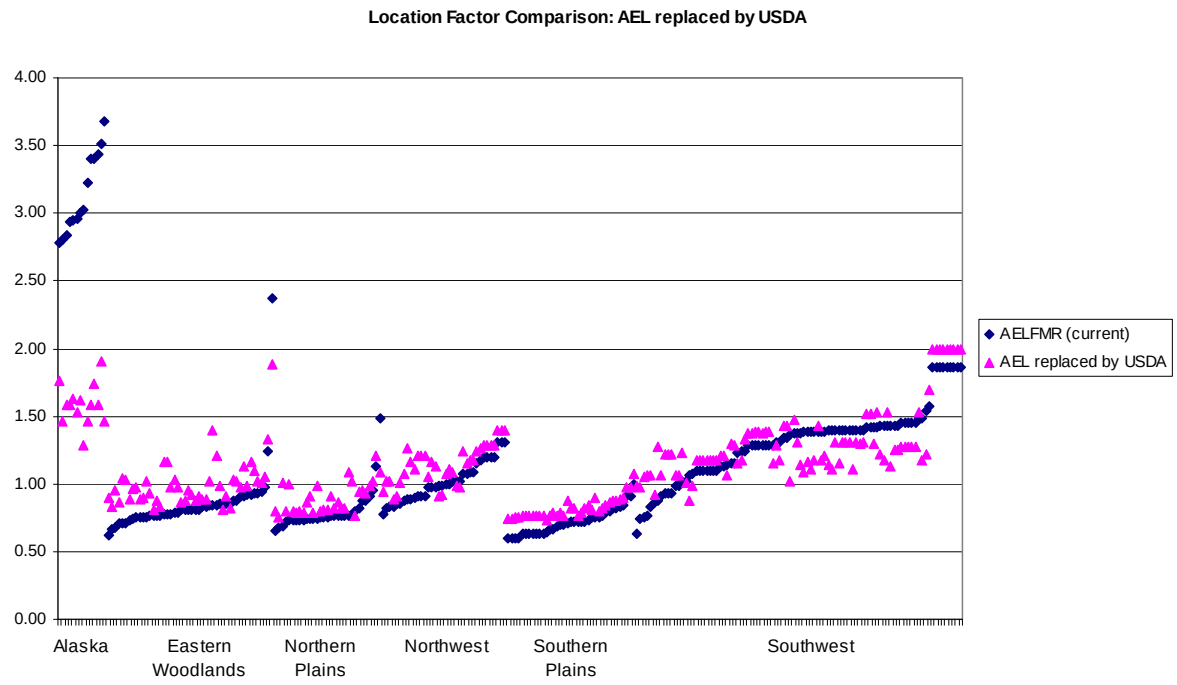

Figure 8-6: Current Adjustment Factor and FMR-USDA Factor

A third option is to use a 515-based factor to supplement, rather than replace, the AEL and FMR. In this approach, each of the three factors is valued as representative of costs in some locations. The most advantageous one is used for each tribe, thus ensuring that no tribe's local costs are underestimated. Figure 8-7 compares the combined factor, based on AEL, FMR, and USDA data, to the current AELFMR factor. It shows that while allocations for a few tribes rise substantially, no tribe is affected negatively to a substantial degree. The retention of AEL and FMR in the formula ensures a stable formula that does not result in a big drop of funding for any tribes. In addition, this approach helps to avoid underestimating costs that may not be fully reflected in the current adjustment factor, particularly in lower cost areas.

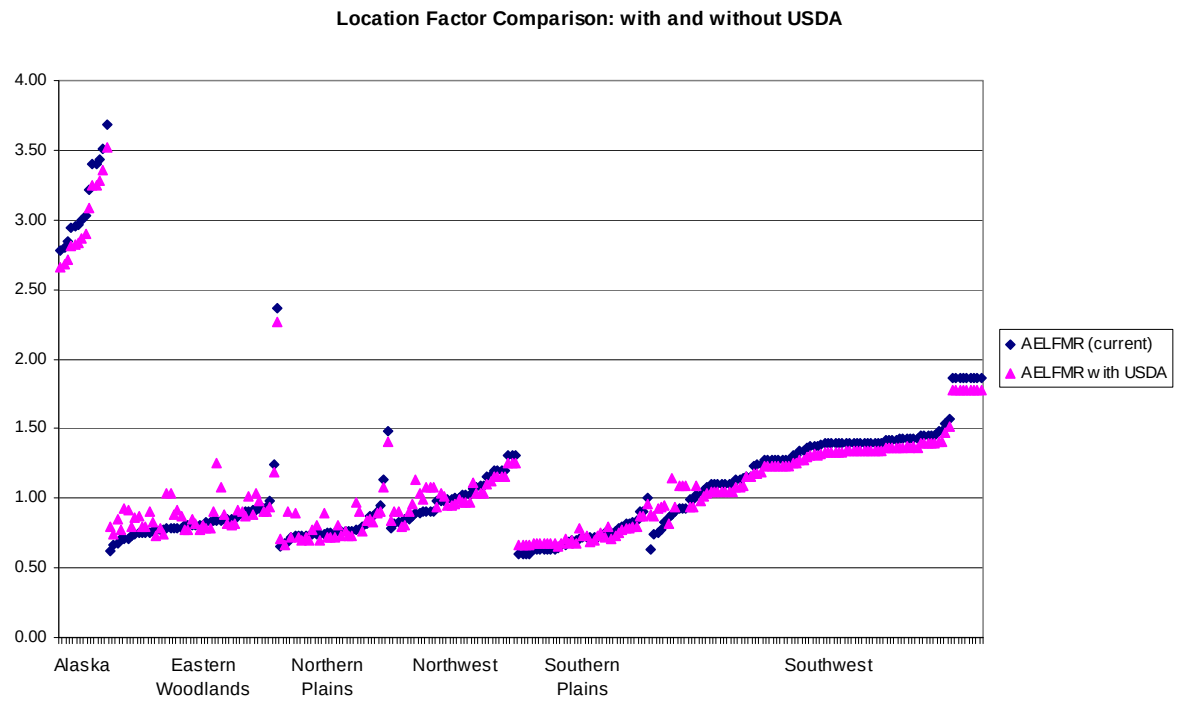

Figure 8-7: Current Adjustment Factor and Factor with USDA 515

The use of multiple location factors can be seen as adding complexity to the IHBG formula. However, the operation of 1937 Act housing units by tribes/TDHEs is a complex situation, affected by geographic, situational, and policy differences. There are simple differences in distance from supplies and services that can influence cost, but there are also differences in policy among tribes/TDHEs that cannot be easily separated from the effects of geographic location. We intuitively understand that when we have a complex object; seeing that object from multiple points of view can increase the accuracy of our understanding. From that perspective the use of multiple location indices makes sense.

In summary, the 515 data can stand as a consistent and current data source to provide local area cost adjustment to the IHBG formula. Its use as a stand alone adjustment factor would lead to widespread changes in tribes' funding levels, an unstable situation. Its use in combination with the FMR, as a replacement for the AEL, would also result in some dramatic funding changes. The recommended use for the 515 data is that it be added to the formula as a supplement to the AEL and FMR. Not only does this approach protect tribes from the instability associated with large funding changes, it provides the most comprehensive approach to local area cost adjustment. Its use as another alternative to AEL and FMR addresses concerns that AEL is an outdated measure that does not fully reflect current costs for some tribes.

Key Points

USDA 515 data is comparable to 1937 Act housing operating costs because, like most of the 1937 Act units, the 515 units are located in nonmetropolitan areas. In addition, it is a large dataset with fairly complete coverage.

Using State average for all tribes compresses differences in operating cost. An index based on formula area county geography shows a wider range of operating costs because of greater geographical precision.

A good geographic fit, and sufficient data coverage, is found by assigning 515 values to tribes by using average costs from each tribe's formula area counties. If a tribe's counties do not have four or more 515 projects, data from projects located in adjacent counties is used. Using this approach, all tribes have a good geographic fit and sufficient data coverage.

Total operating costs or maintenance costs are preferred over an index based on administrative cost because the higher variation in administrative costs could indicate differences in management practices rather than the impact of geographic factors. Total operating costs is considered to be the best measure because it incorporates all aspects of operating costs.

Replacing the AEL factor with a 515 factor results in steep funding drops for some tribes, particularly in Alaska.

The inclusion of a 515 factor to supplement the AEL and FMR factors in the IHBG formula is a good solution because no single cost measure perfectly captures local cost variation. This approach increases funding for some of the tribes currently receiving the lowest per unit amounts. At the same time, it promotes stability by avoiding big funding declines.

IX. Formula Recommendations

This chapter will present formula recommendations that are based on an understanding of NAHASDA requirements, the IHBG formula regulatory framework, and other general criteria for assessing allocation formulas. The recommendations are presented after a brief overview of evaluation criteria useful for assessing formula alternatives.

Evaluation Principles

The task of discussing recommendations for the IHBG formula, and related process and procedures, raises the question of how to compare any alternative to the current formula and data. This is not a trivial issue. The formula was developed through a lengthy process of negotiated rulemaking, including a 5-year review in 2003-2004. Any alternative must be consistent with the statute's provisions, and with the regulations' stated principle of a fair and equitable formula.

Evaluating formula alternatives is not easy in a situation where a fixed allocation is being distributed among many tribes. For any change in the formula, there will be tribes that receive more funds and tribes that receive fewer funds. Without agreement on broad conceptual criteria for evaluating alternatives it will be difficult to achieve unanimity of agreement on formula modification. The following criteria are considered in discussing formula alternatives.

Fairness and Equitability

The formula regulations set out the requirement that the IHBG formula distribute funding fairly and equitably. While these principles are broad and may be interpreted to apply throughout the formula, some specific applications of these concepts are listed here 1) all tribes have the same data sources for formula values, 2) the formula operations are consistent from tribe to tribe, and 3) errors in data values are easily corrected.

Efficiency

The most efficient formula would require the least time, effort, and resources to operate. For example, an efficient formula process would be one that considered the time to collect and review data, to calculate allocations, and to notify tribes.

Transparency

Transparency in a formula means that it is easy to understand how each part of the regulations or statute is operationalized in the formula. It also means that each step in the formula can be traced back to a guiding principle for the formula. Transparency increases the likelihood that different people will have a common understanding of a complex system.

Stability and Predictability

A stable formula is one that does not result in dramatic year-to-year funding changes. A predictable formula is one that makes it possible to anticipate funding changes that do occur as a result of actions or changes either within or beyond the control of the funding recipient. Stability and predictability are especially important for IHBG-funded programs, since they do not have access to commonly used mechanisms to stabilize funding or expenditures, such as case reserves, loans, and other strategies used in private market housing.

The criterion of formula transparency also supports predictability. A clear formula enables housing agencies to anticipate the funding effects of changes such as the conveyance of units and to plan accordingly.

Recommendations

The following recommendations are based on the research findings described earlier in this report. This section presents the recommendations, summarizes alternatives considered, and outlines an implementation plan for each recommendation. Five recommendations[41] result from this study:

1. Add 515 to supplement AEL and FMR.
2. Consider collecting operating cost data annually.
3. Use of actual cost data should not be adopted unless implementation difficulties can be solved.
4. Consider modifying formula to separate program funding.
5. Assign AEL values where they are missing.

Add 515 to Supplement AEL and FMR

A study recommendation is that the current local cost adjustment factor incorporate cost data from the USDA 515 program in addition to the currently used AEL numbers and FMR data. The formula currently applies the largest of two factors, the AEL factor and the FMR factor, for each tribe. In the recommended approach, the formula would apply the largest of the AEL, FMR, or 515 factors.

This recommendation follows from the recognition that the current adjustment factors used in the IHBG formula, AEL and FMR, may not capture local operating cost variations with full accuracy in all cases. No single cost measure perfectly captures local cost variation. AEL numbers, as described in Chapter IV, were derived in different ways at different periods of time in program history. In addition, many tribes currently do not have an AEL. FMR represents the cost of rental housing in a location, rather than operating costs. This cost to

[41] The scope of this study and report were research and assessment of operating costs. The scope did not extend to analysis of the effects or consequences of any recommendations on regulations, budgets, etc. As such, HUD will conduct independent analysis to determine the usefulness, cost-effectivness, and regulatory effect of any recommendations.

rent is affected in some areas by housing supply and demand factors other than operating costs.

Operating cost data from the USDA 515 rural housing rental program is also a good, but not perfect, stand in for Indian housing operating costs. While the 515 program covers many of the same locations as Indian housing, there are no cost data available for some locations, such as remote parts of Alaska. Thus, to use USDA 515 data instead of the AEL factor would not be advised. Instead, using it together with AEL and FMR data provides the best and fairest cost measure available.

The USDA 515 database was thoroughly described in Chapter VIII. USDA 515 data is preferred over actual Indian housing cost data for two reasons. First, housing operating cost data from tribes is incomplete and cannot represent costs in all areas. While the data on operating costs from tribes/TDHES is relatively thin, the data on the operating costs of the rental housing developed under the USDA 515 program is much more complete. Second, if the preferred cost adjustment method is to be based solely on location, the 515 data represent operating costs that are affected less by policy-driven spending decisions. The basic principle of self-determination under NAHASDA, because it assigns control of spending decisions to the tribe, contributes to the tendency of the Indian housing cost data to reflect additional cost factors other than location differences. Since spending under the USDA 515 program regulations is somewhat more defined, these operating costs reflect locational difference more closely.

Consider Collecting Operating Cost Data Annually

Annual collection of detailed operating cost data could be useful for a number of purposes. First, the dearth of information on the actual costs of operating LR and MH units limits understanding of how best to target resources to these units. In addition, collection of these data, perhaps as part of a revised APR, would provide useful input data that could be incorporated into performance measures in the future. Finally, if operating cost data are collected annually, the local area cost adjustment could incorporate actual Indian housing operating cost data, an approach that is not feasible using currently available data.

Current reporting requirements for tribes receiving IHBG funds include the submission of the IHP, which presents the goals, objectives, and activities planned over a 5-year period, as well as a statement of needs, financial resources, and other resources available to help carry out the activities in a 1-year plan.

Tribes are also required to submit an APR, assessing progress on IHP goals and activities. While the APR requires information on financial budgets, this does not include detailed operating costs by program, as discussed in Chapter VI. The collection of operating cost detail could be beneficial in three ways.

First, since there is no systematic collection of operating cost data, Indian housing managers, advocates, and policy analysts do not have full information on operating costs. This lack of

information restricts the ability to access and target additional resources to better serve residents and to use resources more effectively. For example, there is currently no way to track the impact of rising costs in areas such as health care or utilities. Documentation of costs helps to substantiate need, which aids in accessing outside funds, such as State or local government or foundation funds. It also could aid ONAP and HUD in identifying unmet needs in specific areas.

Second, additional data could provide additional information for use in performance measures, if desired. The IHBG program is currently undergoing a review based on the federal Program Assessment Rating Tool. Its last review stated that the program was "not performing" based on a finding that "results not demonstrated." Since then, ONAP has an emphasis on performance measurement, including the integration of data into the Performance Tracking Database. Collection of operating cost data could contribute to the continued refinement of performance measures. In particular, they provide data on a specific aspect of the IHBG that may be hard to measure otherwise, the continued operation of existing units.

The third possible use of annually collected operating cost data is as a revised local area adjustment factor, to replace or supplement the currently used AEL and FMR. While no consensus was reached concerning the use of this type of data in the formula, it was suggested as a possible approach. The use of actual cost data as an adjustment factor is discussed in the next recommendation.

It should be noted that any collection of cost data should include modernization costs, primarily for the purposes of documenting costs and for possible use in performance measures. Modernization cost data would be of less use in an adjustment factor because modernization funds are distinct from operating funds in the IHBG formula. In addition, the periodic, non-annual nature of modernization costs makes them difficult to incorporate into a measure of annual costs. Nevertheless, modernization costs are important to track for the reasons outlined above.

Use of Actual Cost Data Should Not Be Adopted Unless Implementation Difficulties Can Be Solved

One approach for revising the formula that has been raised is to use actual Indian housing cost data as a basis for a funding adjustment factor. This approach has appeal with its basis in real world costs. However, there are problems associated with the use of actual costs, including incentives to spend—possibly overspend—along with concerns about the need for verification and correction of self-reported data. HUD, together with all tribes, a negotiated rulemaking committee, and other interested parties, may want to consider using actual Indian housing operating cost data as the basis for a funding adjustment factor. However, use of these data should be adopted only if various difficulties—some considerable--are addressed.

A major focus of this study was the collection of data on the actual costs of operating 1937 Act housing units. In addition to the benefits of increased understanding of these operating costs, the actual costs of operating 1937 Act units might be used as an adjustment factor.

Actual housing costs have the advantage of being completely relevant to the funding. The timeliness of the data could mean that it would more easily reflect changes in the overall economy, as well as in location and policy. Since actual costs reflect differences in policies and spending priorities as well as cost differences caused by location, their use would reflect an intent to allocate funds on more than location.

In addition, an adjustment factor based on actual operating costs, by creating an incentive to spend funds on 1937 Act units, supports NAHASDA's position that tribes should spend funds to maintain and operate these units, while still allowing tribes complete spending flexibility in line with a commitment to self-determination. Their use could address the issue of underfunded maintenance by providing an incentive to spend on this existing housing stock. Since use of these data would reflect somewhat of a change in funding philosophy, it is recommended only if it is selected as the appropriate funding basis in line with agreed upon goals.

However, there are a number of obstacles and difficulties in using actual cost data. First, if total costs are used it would be necessary for consistent data to be collected from all tribes participating in the 1937 Act programs, if not from all tribes participating in the IHBG program. The data collected from the 54 tribes/TDHES described in Chapter V show that the collection of cost data for use as a location factor is possible. The process also shows some of the concerns that would need to be addressed. It may not be necessary to have 100 percent of the tribes report their costs, since tribes with missing data could have a more accurate cost estimated from their neighbors. However, the number of data sets is not deemed sufficient at this time to estimate data for the tribes that did not submit cost data.

Second, total actual costs would introduce wide variation based on differences in policies related to service level provision, utility payments, security, and other policy differences. These effects could be minimized by using only maintenance costs as the adjustment factor. Any use of actual housing cost data should recognize that this data cannot serve as a pure location factor, since differences in costs reflect other factors as well. In addition to location effects such as climate, supply costs, and other similar effects, actual expenditures reflect local policy decisions based on local priorities. This translation of local conditions and policies into spending priorities and actual expenditures could be seen as reflecting the intention of NAHASDA to recognize "the right of Indian self-determination and tribal self-governance."[42] However, if the intent is for the adjustment to reflect only location, actual cost data are a poor fit.

One issue that could cause problems is instability in funding levels if an actual cost adjustment factor is structured in the same manner as the current adjustment factor, by taking the tribe's per unit cost divided by the weighted average national per unit cost. While simple to construct, and likely to provide funding to all FCAS tribes above their actual per unit spending on these units, this type of adjustment factor might be somewhat unstable and unpredictable, especially in the first years if tribes respond to the cost incentive.

[42] 25 USC 4133.

Another type of adjustment would adjust each tribe's allocation such that, if they spend less than their per unit allocation on their FCAS units, their next allocation represents the average of their previous allocation and the amount they actually spent to operate and maintain FCAS units. The remaining funds are reallocated either to tribes that spent more than the FCAS portion of their allocation on FCAS units, or to the need portion of IHBG funds. This funding structure would have the advantage of providing additional stability to the funding process.

Other issues are harder to address, and may make the use of actual cost data untenable. First is the central role of complex, self-reported data as the basis for funding. Self-reported data currently used in the formula, such as the number of FCAS units, requires verification and correction in order to assure that all tribes are treated fairly and equitably. The complexity of cost data implies a much more extensive administrative role to ensure that the accuracy of the cost data. Verification of actual costs could involve extensive review of accounts and receipts that could increase the costs of administering the formula.

In addition, if actual costs are directly correlated with funding, the resulting incentive to increase costs could result in excessive, unnecessary spending, leading to inefficiencies and directing spending away from where it is most needed. Controlling this incentive effect is the most thorny problem with using actual cost data, and may be insurmountable.

Consider Altering Formula Code to Calculate Funding for Each Program Separately

The current regulations recognize that operating costs differ for each type of program, LR, MH and TK3, and Section 8, included in FCAS. Each program has its own base funding amount derived from the 1996 national average for each program. This recommendation suggests that HUD consider allocating each program's FCAS funding separately as well. This differentiation is recommended because of the differences in program purposes, operating needs, and future housing stock trends.

Tribes/TDHEs began pointing out the differences between the operating needs and costs of rental units and homeownership units in the first phase of this study, and data on operating costs collected in the second phase confirmed these differences. LR and homeownership programs have generally have very different operating needs and costs.[43] In addition, homeownership units eventually are no longer under management by a tribe/TDHE, changing the mix of FCAS units to be more heavily LR.

The most straightforward change would be to calculate the AELFMR, or any replacement adjustment factor, separately for each program and allocate each program's total funding accordingly. Under this approach, the amount of funds calculated by multiplying the LR national base amount by the number of LR units would be allocated only to LR units. Similar allocations would take place for homeownership and Section 8 units.

[43] Review of Section 8 costs was beyond the scope of this study.

Separating the allocation process by program also enables the formula allocations to be targeted more closely, if desired. For example, Section 8 units, like LR and homeownership units, are allocated based on either AEL or FMR. However, the Section 8 program, unlike the LR and homeownership programs, provides rental assistance that is not tied to specific units.

Of the 580 tribes that receive IHBG funding, there are 22 tribes/TDHEs that operate about 3,600 units continued from the 1937 Act Section 8 program. As noted earlier, the operation of these Section 8 units is funded in the same way as LR and MH units. The total number of expired Section 8 units that tribes/TDHEs continue to operate is determined, and this number is multiplied by the inflation adjusted FY 1996 national average subsidy. Finally, the national amount for Section 8 is distributed using the AELFMR location factor. Unlike LR and MH units, Section 8 units do not receive funding for modernization since there is no actual inventory housing stock.

Since Section 8 is a rental assistance program, the FMR is almost a perfect match of data to purpose. Market rents should closely approximate operating costs of these units. In the case of these units, AEL and other data sources do not contribute additional relevant information on operating costs.

Additional Recommendation

The history of AEL use and assignment to tribes reflects changes in the use and application of the AEL. While differences in AEL assignment arose unintentionally, they have created an unequal situation in that some tribes have no AEL. Thus, these tribes cannot use the most beneficial of two indices, the AEL factor and the FMR factor, as most tribes do. Rather, they must use the FMR factor. An additional action to take might be to assign AELs to the tribes who do not have them.

While most tribes apply the most advantageous of the AEL and FMR factors, 50 tribes must apply the FMR factor. To examine the impact of these missing AEL values, AEL values were inserted into the FY 2006 IHBG formula data for all tribes operating 1937 Act units. Two rules were used for these value assignments. First, if there was a tribe in the same or adjacent county, then that AEL was assigned to the missing value. As a result a tribe in northern California was assigned the average of two adjacent tribes and a tribe in Wyoming was assigned the AEL value of an adjacent tribe. If there were no adjacent tribes, then tribes without AEL values were given the AEL of all other tribes in their State. If there were no other tribes in their State, then the average value of an adjacent State was used; this was the case with Louisiana being assigned Oklahoma and South Carolina being assigned the average AEL of tribes in North Carolina.

Table 9-1: AEL Assignment Methods for Tribes Missing an AEL

State	No. Tribes Assigned AEL	Source of AEL
California	1	Adjacent tribe(s)
Wyoming	1	Adjacent tribe(s)
Michigan	2	State average
Nevada	2	State average
New Mexico	16	State average
South Carolina	1	Adjacent State average
Louisiana	3	Adjacent State average
Oklahoma	10	State average
Oregon	5	State average
Texas	2	State average
Utah	2	State average
Washington	5	State average

After all tribes were assigned an AEL value, the FY 2006 final allocation was re-calculated and the results compared to the actual FY 2006 allocations for Current Assisted Stock. The addition of the 50 AEL values had no effect on the total amount allocated to CAS. That amount is based upon the national total number of units in each program and the national average funding assigned to each program. The addition of these AEL values can only affect the distribution of CAS funds among those tribes with CAS units.

Replacing the missing AEL values caused four tribes to have their AELFMR location index switch from the FMR Factor to the AEL Factor. Table 9-2 shows the dollar amounts of change that were greater than $10,000 when all tribes were assigned an AEL. The largest amount of additional CAS funding was for the Acoma Pueblo. The largest percent change was for the Yurok Tribe.

Table 9-2: Tribes Gaining by AEL Assignment

Tribe	$ Increase resulting from AEL Assignment	Percent Increase in CAS
Acoma Pueblo	64,032	10.7 %
Navajo Nation	42,734	0.001 %
Yurok Tribe	24,615	15.4 %
Santa Clara Pueblo	19,931	5.7 %
San Juan Pueblo	17,073	7.8 %

While the introduction of these AEL values did increase the funding for some tribes, no tribe had a reduction in their allocation greater than 0.3 percent. This was the percentage change in the calculated CAS funding for Coos Bay, an amount of $688. Table 9-3 shows there were four tribes with reductions of $10,000 or more. However, these amounts were relatively small proportions of the FY 2006 CAS funding for these tribes.

Table 9-3: Tribes Losing by AEL Assignment

Tribe	$ Decrease resulting from AEL	% Decrease in CAS
Cherokee Nation	-29,634	-0.2%
Chickasaw	-13,452	-0.2%
Gila River	-10,852	-0.2%
Oglala Sioux of Pine Ridge Reservation	-10,370	-0.2%

This analysis indicates that the lack of AEL values for all tribes with current assisted stock appears to have under-funded at least four tribes. The criteria of fairness and equity suggest that all tribes should have an appropriate AEL value in the IHBG data files.

Appendix: Study Methodology

The primary focus of information gathering in the Indian Housing Operating Cost study was upon identifying and gathering data about categories of operating costs for LR and MH housing. The study used multiple methods of gathering information about a variety of issues, from multiple sources. These methods, sources, and topics varied throughout the two phases of the study, as their purposes changed. The purpose of this chapter is to detail the research approach of the IHOC cost study.

The cost study was divided from the outset into two phases—Phase I to do background research, gather input and information to shape the study questions and approach, and develop the Research Design Plan, and Phase II to gather and analyze new and existing data. Phase I activities will be described below. The information derived from these activities served as input used to develop the Research Design Plan.

Phase II used the Research Design Plan as a major guideline for the collection of the preponderance of the housing cost data from the tribes/TDHEs. This section of the chapter describes the information requested, procedures used to request information, and organization and analysis of data received.

Phase I

This initial phase of the study was critical, in that it focused upon the development of the information base, and potential methods of gathering information. Two major components (gathering input from tribes, and reviewing existing documents) were ongoing activities that occurred throughout the research, varying only in specific approach or topic. Based on the information obtained from the review and input stages, various data collection forms and processes were pilot tested. From those findings and experiences, the Research Development Plan was prepared, as a guide to the more comprehensive data collection which occurred in Phase II. These Phase I activities will be discussed below.

Summary of Efforts to Gather Input from Tribes

This section describes the many and varied efforts to gather information from tribes/TDHEs and other knowledgeable parties regarding the costs of operating 1937 Act units in Indian Country. Discussions with tribes and others on cost information and related issues was a major emphasis of the first phase of the study. In the second phase of the study, efforts to involve tribes in the process shifted to maximizing their opportunities to be represented in the study through their cost data. These efforts are further described in the section explaining the data collection methodology of Phase II. Throughout both phases of the study, many channels of communication were offered so that all interested parties had an opportunity to register their thoughts on cost study issues.

The first phase primarily dealt with collecting information that would clarify the categories of potential and available information about housing costs, and with testing various methods

of gathering information from tribes and TDHEs.[44] This phase included three types of activities, including review of existing documents, discussion with tribes, TDHEs, other organizations and interested parties, and the development and testing of data collection categories, forms, and processes. The discussion activities will be described here, and the other two areas will be discussed in the next section as the background to the Research Design Plan.

Phase I included many outreach activities designed to encourage tribes, TDHEs, and other interested parties to provide input and insight into the study issues and approaches. These included the distribution of a Purpose Report, provision of an informational Web site and toll-free telephone line, attendance at regional housing association meetings, discussions with tribes, TDHEs, HUD, and other agencies and organizations, and site visits.

There were three goals for these activities:

1. To provide opportunities for comment on study issues and cost categories at every stage of the study. Tribes/TDHEs were able to see what general costs are being considered and provide information about any categories of costs that they see omitted.

2. To collect information and input on their specific measures of costs, or costs that could be easily created from current records.

3. To provide an opportunity to further communicate to tribes/TDHEs the importance of the study and gain their full participation in it.

Purpose Report

The Purpose Report was developed to provide an initial overview of the study for distribution to tribes, HUD and ONAP staff, and others. Along with a cover letter jointly signed by Assistant Secretary for Public and Indian Housing Michael Liu and Deputy Assistant Secretary for Indian Housing Rodger Boyd, the Purpose Report was distributed to all tribes participating in the IHBG Formula Allocation Program in early January 2005. This Purpose Report explained the purpose of the research, who was conducting it, and how tribes and TDHEs might be contacted for information needed in the study. It encouraged all interested parties to participate and provide information that would help formulate the study, and described various means of providing input to the study, including use of the toll-free project number, and the public Web site, so that people could learn more about the research and its progress.

[44] The IHBG allocation goes to the tribe which may pass on the funds and responsibility for housing to a TDHE. When tribes do not designate a TDHE, they usually operate housing programs as a department of the tribe. However, to simplify the discussion in this document we will refer to all agencies administering 1937 Act housing programs as TDHEs.

Web Site Development and Toll-free Line

A Web-based presence was set up specifically for the Indian Housing Operating Cost study. Its purpose was to provide ongoing information about the study, to furnish access to key documents and reports, and to provide a mechanism for individuals to leave comments (anonymously, if desired) on issues such as: what should replace the AEL, what costs and data sources should be examined, and other open-ended comments. The Web site also provides a means for tribal members, TDHE staff, etc., to request a project staff to contact them for further discussions. The study's toll-free number was also posted on the site, allowing people to directly call the team.

The Web site did not become a popular place to discuss the issues of the study; no comments were left after the first 6 months of the project. The majority of comments were from a single individual. However, the log file on the Web server indicated that the site was visited, thus becoming a source of information on the status of the study for some individuals in Indian Country and Alaska. It is likely some of these were representatives of the TDHEs and tribes.

Attendance at Regional Housing Association Meetings

Study team members attended regional housing association meetings for each of the six ONAP regions. At each meeting, a team member presented an overview of the Indian Housing Operating Cost study, summarizing the information contained in the Purpose Report. Before and after the presentation, the team member(s) made themselves available for individual questions or comments (either during the meeting or later via email or telephone). Participants of the meeting thus had the opportunity to provide comments and input on the project via public comments, written comments, or private one-on-one comments to presenters. In the case of the Association of Alaska Housing Authorities, attendance at three of their meetings provided the setting to discuss many concerns about the study and its intention.

Discussions with HUD and Other Organizations

Study staff attended an ONAP Administrators meeting to present an overview of the study, and discussed the study with individual interested administrators at that meeting and through telephone calls in the subsequent months. Discussions on specific topics were also held with personnel from other agencies and organizations.

Site Visits for Input to the Study

After the Purpose Report had been distributed to all tribes and TDHEs, site visits to tribes were scheduled based upon the recommendations from the administrators of the six ONAP regions. Each administrator initially recommended two TDHEs with 1937 Act housing. Tribes visited in Phase I included: Sault Ste Marie (MI), Cherokee (OK), Chickasaw (OK), St. Regis Mohawks (NY), Cheyenne River Sioux (SD), Karuk (CA), Makah (WA), Spokane (WA), Salish & Kootenai (ID), Bristol Bay (AK), and Northwest Inupiat (AK).

The site visits were used to discuss the study and gather input on cost issues and categories, to review formats used by the tribes to report expenses, and to discuss data collection forms and processes as they were developed.

While the information obtained from all these sources of input was very helpful, and critical for the development of the comprehensive data collection procedures, it was also essential to review various documents as potential sources of information. Document review is summarized below.

Document Review

The identification of appropriate categories of operating costs, and the factors that may affect them, were of great importance to this study. Along with the many discussions with tribes and others, a review of existing documents was an essential part of this process. Review of existing documents, in this Phase I of the study, provided an important orientation to the concepts and issues involved in the operating cost study, ensured that relevant previous findings would be reflected in the study design, and provided a context for the study. Additional documents were reviewed in Phase II as necessary. The following sections summarize some key documents relevant to this study. They provide useful information about operating cost issues, as well as methods and processes for examining operating cost data.

Public Housing Operating Cost Study

Several documents from the Public Housing Operating Cost Study, also known as the "Harvard Study," were reviewed for information on operating cost methodology issues. The Harvard Study developed a project-based cost model that used project variables to estimate projected operating costs.

The model was based on data on operating costs from housing with FHA guaranteed loans. Costs from this housing program were used in place of PHA operating costs because of a key concern of circularity, that is, that prior funding levels would determine current expenses. The study statistically analyzed FHA project costs to identify property elements that drive operating costs, developing a cost model that estimated what it should cost to run each Public Housing property. After field research that sought to determine how PHA operating costs differ from FHA costs based on regulatory differences, model costs were adjusted to reflect the additional costs of operating under Federal agency rules.

A specific result from this study, the geographic coefficient developed in its operating cost model and implemented in the new public housing operating fund formula, is described in Chapter IV's section on alternative data sources.

Documents reviewed include:

Public Housing Operating Cost Study: Final Report[45]
Discussion of Research Issues and Initial Recommendations for Review[46]
Report on Pilot Case Studies and Recommended Final Case Study Approach[47]
Operating Cost Model Update[48]

Annual Performance Reports and Indian Housing Plans

These two main documents required by HUD for information on the activities and costs of NAHASDA funded activities were reviewed for their usefulness in providing information on Indian housing operating costs. As described in Chapter III, the format of APRs cannot provide annual operating cost data on 1937 Act units. IHPs also are not suitable sources of operating cost data, since they provide detailed information on activities. Cost information listed in IHPs is in the form of general budgeted amounts

Studies on the PFS and Other Funding Mechanisms

Several prior studies examined the PFS, from which the AEL originated, and analyzed the benefits and drawbacks of it and other operating cost-based funding systems. These studies also considered the difficulties inherent in the use of operating cost data from different housing authorities. These documents, published between 1979 and 1994, include:

The History and Overview of the Performance Funding System[49]
Alternative Operating Subsidy Systems for the Public Housing Program[50]
Federal Subsidies for Public Housing: Issues and Options[51]
Revised Methods of Providing Federal Funds for Public Housing Agencies: Final Report[52]

The Department of Interior Quarters Management Handbook

This information was considered as a potential source of information that might be comparable in some ways to the data obtained from this IHOC study. This program follows OMB Circular A-45 (revised) which sets policies and procedures for establishing what could be considered "fair market rent" for quarters to house agency personnel, depending on its location and other characteristics. This information was discussed in detail in Chapter IV.

[45] June 2003: Harvard University Graduate School of Design. The Public Housing Operating Cost Study documents were found at http://www.gsd.harvard.edu/research/research_centers/phocs/documents.html over the course of the study.
[46] April 2001: Harvard University Graduate School of Design.
[47] January 2002: Harvard University Graduate School of Design
[48] June 2002: Harvard University Graduate School of Design
[49] May 1979: Abt Associates.
[50] 1982: Department of Housing and Urban Development
[51] June 1983: Congress of the United States Congressional Budget Office.
[52] 1994: Abt Associates.

Documents and Data on HUD Data

This information was considered as possible sources of information on operating costs and as data that references locational differences in costs. They were also discussed in Chapter IV.

> *Evaluation of Alternative Total Development Cost Determination Methods*[53]
> *Management Information Retrieval System* data

All of the above sources of information were essential to the next stage of Phase I research. That is the development and pilot testing of data collection methods and processed, which is discussed below.

Development and Testing of Data Collection Categories, Forms, and Processes

One component of the first phase of the study was to determine current data availability and identify ways to collect new data if necessary. Our background research showed that annual operating cost data was not collected by HUD, nor recorded in a consistent format across tribes. So discussions and site visits with tribes focused on the types of information that tribes might have and use, internally, regarding operating costs.

The primary issues addressed the types of cost categories that would be desirable and feasible to use in the IHOC study, the types of available data, and determining the most effective methods for collecting and organizing operating cost data.

The major findings about the availability and collection of data were discussed in more detail (above) in Chapter III. They are summarized below.

- Operating cost data by project were rarely available.
- Operating cost data separated by program (LR and MH) were not always available.
- Many formats were used by tribes/TDHEs to report operating expenses.
- The variation that exists in program choices influenced both the level and organization of detailed cost categorization.
- Most financial or expense reports received in the course of the study required clarification, which often took multiple attempts over several weeks to achieve.

In summary, the collection of operating cost data of sufficient category and program detail was a labor-intensive process. A Research Design Plan incorporated these findings and tested practices into a detailed plan for further data gathering and organization, which continued in Phase II. A brief summary of that plan follows.

Research Design Plan Overview

The Research Design Plan (RDP) incorporated the investigations of Phase I into a plan for gathering the data needed to understand Indian housing operating costs. This brief overview is followed by a discussion of the key components of the Research Design Plan.

[53] August 2006. Steven Winter Associates, Inc.: Washington DC.

Research Design Plan Development

An initial draft of the Research Design Plan was developed in June 2005, with the final version approved by HUD in October 2005. The study's Scope of Work called for a review of research activities after 25 percent of the data had been collected. This review was intended to take stock of the activities and to modify plans as needed; it was conducted as specified. In fact, the Research Design Plan was evaluated periodically and internally by the research team, to evaluate the effectiveness of the data collection. As the plan was implemented, this additional experience-based evaluation contributed to the improvement of methods, to make them more suitable to the existing research conditions.

Strengths and Weakness of the RDP

The greatest strength of the RDP was that it provided a flexible plan to address the collection of complex information from entities which varied greatly in terms of the information which they collected and used. Because this study was exploratory and developmental in nature, this flexibility was a necessity.

The developmental/exploratory aspect of the study also contributed to the weaknesses found in the research plan. As prime examples, the implementation of the requests for information needed to be altered as the study progressed, and the detailed sampling plan (as originally developed) proved to be difficult to achieve. (Note: the study had a prime goal of maximizing the participation opportunity for all tribes; we felt that this opportunity was achieved via the multiple approaches used. However, as participation was not as representative as desired, the sampling plan was developed to attempt to insure variation across regional and tribal characteristics.)

In summary, the approaches outlined in the RDP were followed as best as possible, as data collection was implemented; however, some modifications were made as necessary in efforts to increase research effectiveness.

Components of the Research Plan

The Research Design Plan detailed proposed research activities in the following areas:

- The type and extent of housing cost information to be obtained (What information)
    - The development of the standardized data collection form
- The plans for the sampling of tribes/TDHEs (From whom)
- The procedures for obtaining the housing cost information (How obtained)
    - Modes of distance contact
    - Use of site visits
- The transformation of housing cost information to data, for analyses

All of these components will be discussed in detail below, in the presentation of the second phase of the IHOC study.

Phase II

This phase of the research dealt with the preponderance of efforts to collect housing cost information and to convert that information into quantifiable data for analyses. The first section below describes the specific categories of information that were sought, the procedures for gathering that information, and how the tribes/TDHEs who did not respond to the initial invitations to participate were sampled.

The second section addresses the process by which the information from the many forms of housing cost information was converted into data.

Housing Cost Information

Cost Categories

As described earlier, detailed standardized information on annual housing operating costs is not currently collected by HUD. During Phase I, variation was found among TDHEs in the systems of tracking and reporting operating cost data for 1937 Act units. This variation required the development of a list of cost categories that could be used in a consistent manner for the collection of cost data. A number of different forms, using various sets of overlapping cost categories, were examined for possible use, including some forms in current use by some tribes.

Because of the variation found in Phase I, a specific chart of accounts was created for this study (IHOC Chart). Familiar expenditure categories are used for primary and subsidiary accounts, such as: Administrative Salaries, Legal Expense, Staff Training, Travel, Accounting Fees, Audit Fees, Sundry, Telephone, Water & Sewer, Electricity, Maintenance Labor, Maintenance Materials, Maintenance Contract Costs, Protective Services, Insurance, Payments in lieu of taxes (PILOT), Employee Benefits, Collection Loss, and Modernization, etc.

Development of the IHOC Chart began with the HUD Chart of Accounts as reflected in HUD-52599 (the Statement of Operating Receipts and Expenditures form which had been used prior to NAHASDA). This was modified to be more comprehensive and systematic in its categories, and to reflect TDHE practices we observed in the first phase of the research. For example, we observed that TDHEs were evolving primary accounts to reflect the reporting requirements of the APR and to reflect their own circumstances.

Additional Categories

The IHOC Chart was also developed to include categories of accounts that we believed might be interesting and useful for more in depth, explicit examination. Utilities costs, such as

electricity and natural gas, were separated into “office” and “resident” costs so general operational costs, which include electricity costs of streetlights and vacant units as well as office operating costs, could be separated from the costs of providing utilities for residents to use in their homes.

Program Information

The IHOC Chart also separated LR costs from MH costs, since discussions in Phase I indicated that operating costs of these two programs differ.

Fiscal Years Examined

Previous examination of the MIRS data had confirmed that substantial variations in expenses often occurred from year-to-year. Also discussions with HUD area office staff had confirmed that, as TDHEs develop their IHPs, there continues to be variation in expenses, particularly for maintenance and modernization, from year-to-year. Therefore, tribes and TDHEs were invited to send financial year-end statements containing expenses for FYs 2002, 2003, and 2004. An additional benefit of using FY 2002-2004 is that costs had already been recorded, and so were fixed and not subject to revision. However, not all tribes/TDHEs were able to submit data for all 3 years. Reasons included financial records were not in compatible formats for all years, staff turn over, changes in fiscal year definitions, and change in organizational structure.

Procedures for Obtaining Cost Information and Sampling Plan

Initial Plans for Requesting Cost Information

It was critical that all tribes and TDHEs with 1937 Act units have an opportunity to participate in the study. The RDP outlined various approaches for obtaining the housing cost information from tribes and TDHEs. The planned approach had two parts: a request for the information targeted to all tribes, and an extensive follow up with a selected sample of tribes. The sample of tribes was specified so that tribes with a variety of characteristics would be included. This approach was modified in the course of the study as the effectiveness of this approach was evaluated along the way. Because it was modified, the planned approach is described in detail here.

The RDP specified that the initial request to all tribes be followed by extensive follow up attempts for a sample of tribes. As the RDP stated,

> Experience in Phase 1 indicates that only a small proportion of TDHEs will respond. Time and budget resources for this study do not allow extensive follow-up of all TDHEs, therefore a sampling process will be used to select TDHEs for extensive follow-up efforts. Sampling will also be important to complete the study with operating cost data that represent important groups of TDHEs. Thus, sampling will occur to ensure this representation.

Sampling Plan

Sampling stratification was planned to ensure that collected data represented differences in geographic location, scale of operation, type of program, and distance from urban centers. The sampling plan stratified tribes into the following subgroups: ONAP region, LR/MH mixture, program size, and remoteness of location. These characteristics, when combined, resulted in 58 subgroups with at least one tribe. The goal of the sampling approach was to obtain data from 40 percent of tribes in each of these subgroups.

The sampling approach was made more complex by the initial request made to all tribes. Tribes that responded were automatically part of the sample, and remaining tribes in each subgroup were randomly sampled to complete each sample. If additional tribes responded, sampled tribes could be removed from the sample in a randomly determined order.

Two approaches were planned to target tribes to increase responses in each sampling subgroup. First, the plan suggested a minimum of three contact attempts to obtain information. Second, site visits were planned to be used if submitted financial records were incomplete or unclear, or the tribe requested a site visit.

The initial approach for collecting information was modified to increase data collection effectiveness for several reasons. First, many follow up attempts to contact tribes met with definite refusals or indications of disinterest in participating in the study. In keeping with the voluntary nature of participation, we were unwilling to take an approach of making continued requests to these tribes because we thought that would not increase good will towards the study and its recommendations. Second, it became evident that although the goal of representation of each of the targeted characteristics could be met, using random sampling to achieve proportionate representation of each finely grained subgroup was unrealistic.

Procedures for Requesting Information

It was important that all tribes and TDHEs with 1937 Act units have an opportunity to participate in the study. For that reason the initial request for information was sent to all tribes/TDHEs. However, experience in Phase I indicated that only a small proportion of TDHEs would respond. Time and budget resources for this study did not allow extensive follow-up of all TDHEs, so the RDP specified a sampling process to target tribes when necessary to get a cross section of data to ensure that tribes and TDHEs with a variety of characteristics would be represented. Sampling was planned to target tribes for extensive follow up to ensure this representation. Extensive follow up, with a minimum of three contact attempts, was planned.

The extensive follow up strategy outlined in the RDP was tested in one region. Tribes were contacted by registered letter, with email and phone follow-ups made. These contact efforts did not result in the submission of additional data. This follow up strategy was found to be ineffective and in other regions, multiple attempts were made instead to contact all tribes by telephone. Telephone contacts did result in increased participation.

Some changes in this approach outlined in the RDP were made, based on our findings that follow up strategies other than telephone calls were not effective. The following strategies were followed to maximize outreach to tribes and TDHEs and increase responses from all of them willing to respond. Tribes and TDHEs were mailed a letter from their Area ONAP Administrator requesting their participation through the submission of financial documents. All tribes and TDHEs were mailed a postcard that reminded them of the study and its purpose and inviting them to participate. All mailed communication listed multiple ways to contact the study team for questions and to submit information, including mail address, fax number, website address, and toll free number. In two regions, Southern Plains and Northern Plains, an additional letter was sent from the study project director requesting information. In Northern Plains, as described above, tribes that had not responded were contacted with an additional letter request. In the Southwest, Northwest, and Eastern/Woodlands regions, all tribes and TDHEs that had not responded were contacted by telephone. Three attempts were made to contact all tribes. In the Alaska region, study staff worked with staff from the Alaska housing association to contact all tribes to request participation. In the Northwest region, project staff spoke with staff from the regional housing association after learning that this association had contacted member TDHEs with a letter stating their opposition to the study. These collective efforts followed a decision to maximize attempts to contact all tribes, and the represent an extensive follow up with all tribes.

Out of the 257 tribes with 1937 Act units over the period involved (2005 through 2006), 99 tribes/TDHEs representing 106 tribes, or 41 percent of tribes, participated in providing information for the study reaching our target of 40 percent participation. However, not all responses could be used because data limitations prevented the submitted data from being converted to the uniform study format to make the data comparable with data from other tribes/TDHEs. The 54 completed data sets represent 61 tribes, or 24 percent of all 1937 Act tribes.

Site Visits

The study included 18 general cost study site visits and 15 site visits that included an energy component. The RDP described site visits as useful to obtain financial reports from targeted tribes when they were unavailable through other follow-up methods. As the study progressed, it became clear that tribes who were reluctant or unable to provide financial reports in a suitable format through other contact formats would not be changed by a site visit. Also, the addition of the energy efficiency evaluation component to this cost study was expected to have a positive influence on obtaining financial reports while on-site, but it did not prove to be universally true. In some cases, the energy evaluation component of site visits was successfully conducted, but no additional cost information was obtained. However, in most cases, site visits continued to be helpful in obtaining and clarifying cost information and in discussion of issues related to operating costs.

Standardized Data Collection Form

In Phase I, the study team initially developed and pilot tested a standardized data collection form that was intended to be either sent to TDHEs for completion, or to be taken to TDHEs

for completion by the study team, on site. Because there was some success in Phase I pilot-testing with this form, the RDP planned to send this data collection form to some or all TDHEs, to increase their options for participation, in case some preferred simply complete the form which asks for specific cost information. In cases where entries were unclear or incomplete, follow up attempts would be made to clarify the cost information. This approach could not be followed as anticipated because of delays in the OMB approval process, described in that section. However, once OMB approval was obtained, near the end of the study, this form was sent to tribes whose initial data submissions contained insufficient or unclear data.

Final Response Results

Out of the 257 tribes with 1937 Act units over the period FY 2002 to FY 2004, some response or participation in a site visit was made by 99 tribes/TDHEs representing 106 tribes, or 41 percent of tribes, reaching our target of 40 percent participation. From these 99 tribes 54 completed data sets were constructed, representing 61 tribes, or 24 percent of all 1937 Act tribes.

Compiling and Reviewing the Cost Information

Once information had come in from the participating tribes, it had to be examined and prepared for conversion to data for subsequent analyses. The following procedures were followed in processing housing cost data.

- Entry of incoming information into standardized database
- Identification of questions and clarification of cost data
- Review of data summaries by participating tribes/TDHEs
- Finalization of data

Enter Incoming Information into a Standardized Data Entry Form

Experience from Phase 1 indicated that we should not expect to obtain the information in consistent cost categories. Therefore, we developed the Operating Cost Data Entry System (OCDES). This is an Excel-based workbook which allowed members of the IHOC team to translate cost information from expense statements from individual TDHEs to IHOC Chart categories on an input worksheet. Formulas contained in the input worksheet collected all costs assigned to the same cost category and assigned the sum of those costs to an output worksheet. While the input worksheet was free-form in its structure, the output worksheet has a fixed format representing the major categories on the IHOC Chart.

Costs were categorized using the IHOC Chart cost category definitions, which were based on the definitions corresponding to HUD's form 52599 (Statement of Operating Receipts and Expenditures). Additional guidelines for categorizing specific costs were developed as needed, based on specific cost accounts listed in the financial reports. This ensured that costs were classified consistently throughout the study by IHOC researchers.

One purpose of the cost study data entry system was to make it easier for tribes/TDHEs to participate, by allowing them to submit information in their typical formats. Then the conversion of the information into actual data was done by the study team members, so no burden was put upon the TDHEs to interpret the categories, or to create the information in that standard format. Another advantage of having the study team convert the information into data is that they had developed the process, and had trained in order to use it consistently. Additionally, it was useful to have original financial statements readily available as reference material in case cost categories needed some minor revisions, during the process of data entry.

In cases where the data initially received could not be entered into the OCDES system, because the data contained too little detail, was in an incompatible format, such as the APR format, or contained categories that could not be reconciled with the study cost categories, an additional request was made to the tribe/TDHE. The request was made by telephone, fax, or email, depending on the contact information available.

Identification of Questions and Clarification of Cost Data

After the initial input of information, the OCDES input and output forms were reviewed for any unresolved questions. In almost all cases, some additional clarification was needed to complete the dataset. One common area of clarification was between costs for LR and MH units, which usually were not differentiated in the financial reports. While the type and extent of clarification needed covered many different areas, other common topics for clarification included (1) additional description needed (e.g. Building Horizons program, what is it, who does it serve); (2) distribution of costs between activities (e.g. vehicles, are they used for administration, maintenance, etc); and (3) distribution of utility costs between office and residential units.

The costs were also reviewed to identify large differences between years, to ensure that year to year changes reflected actual costs and ensure that no data were inadvertently left out.

Requests for additional information to clarify the operating cost data were made by telephone, fax, or email, depending on the contact information available. In some cases clarification was obtained through site visits.

Review of Summaries by Tribes/TDHEs

Once sufficient clarification was obtained to complete the OCDES, summary files were created showing the cost information as categorized in our standard database. “Summary costs” showed, for LR and MH, total cost, annual per unit cost, and per unit per month cost for general aggregate categories, including administration, tenant services, maintenance, utilities, general costs, and modernization, along with total costs with and without modernization included. These data are presented by year and as an average of all years submitted. “Costs by category” showed total costs by year for every cost category, along with average annual cost per unit, for LR and MH. Tribes/TDHEs were asked to review these summary sheets and to respond with any corrections.

Finalization of Data

If no response was made by a tribe/TDHE, the cost data were considered to be final for that tribe. When corrections were submitted, the cost data were adjusted to reflect the response. Several tribes/TDHEs commented that they found these summary sheets useful for their own accounts.

Summary of Research Activities

In summary, the Indian Housing Operating Cost study included the research activities listed below. In addition, a number of other study-related tasks were conducted, including the development of a Purpose Report and a Research Design Plan, and participation in a review after 25 percent of research was conducted. Research activities included:

1. Gathering input from tribes and tribal organizations.

2. Reviewing documents.

3. Developing and testing data collection categories, forms, and processes.

4. Gathering housing cost information from tribes/TDHEs.

5. Compiling and reviewing the cost information.

6. Coordinating Paperwork Reduction Act requirements for approval of data collection.

7. Reviewing and evaluating other sources of housing operating cost information for use as a possible location factor.

8. Reviewing IHBG formula operating cost funding procedures necessary to make recommendations on revised formula data or process.

Key Points

Communications

Input was solicited from tribes and tribal organizations through many channels: by direct communication through the purpose report and subsequent postcards and letters; through presentations at regional housing association meetings; and through site visits with a subgroup of tribes/TDHEs.

Information on the study and its progress was provided to tribes/TDHEs on an ongoing basis through the project Web site and through occasional postcard mailings.

Tribes/TDHEs had many opportunities and channels to contact study staff and offer input: through question and answer periods at regional housing association meetings; through information discussion at these meetings; by toll-free line direct to study staff; through email; and through a public forum on the project Web site.

Methodology

Contacts were made by many means.

The Operating Cost Data Entry System was designed to standardize the cost information which was received in many formats.

The Research Design Plan's sampling approach changed to a more flexible approach that emphasized multiple contacts made to all tribes/TDHEs to maximize their ability to participate.

Voluntary submission of data will not yield high returns in cases where the outcomes for individual tribes/TDHEs are not beneficial to all.