

Determining Disposition Strategies for Public Housing:

A Multi-Criteria Public Policy Decision Model Using the Analytic Hierarchy Process

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Redefinition of public housing policy is one of the important decisions facing American society. Deterioration of public housing stock, reduced government ability to provide housing funds and the social failure of traditional public housing policy as defined by the welfare state all contribute to the consensus that change is necessary. The debate over public housing policy is one that touches all Americans and goes to the very heart of our values of compassion and self reliance.

Addressing this issue by utilizing the Analytic Hierarchy Process and the use of Expert Choice software, the problem was systematically analyzed and reconstructed in two related decision hierarchies. The first allows policy makers to balance the views of the various stakeholders to the decision with respect to the overall objective. Once these priorities are determined, the second hierarchy is used to choose among the policy alternatives.

INTRODUCTION

Redefinition of public housing policy is one of the important decisions facing American society. Deterioration of public housing stock, reduced government ability to provide housing funds and the social failure of traditional public housing policy as defined by the welfare state all contribute to the consensus that change is necessary. The debate over public housing policy is one that touches all Americans and goes to the very heart of our values of compassion and self reliance.

Solutions tried in the past have not seemed effective and current efforts have resulted in a patchwork of programs and authority that at times seem to have little to do with the essential nature of providing public housing--delivery of clean and safe housing to those in need.

The federal Housing Act of 1949 stated as one of its primary goals the establishment or creation of decent housing for every American. This policy, which had its roots in public works programs of the depression and largely adhered to by every administration from Truman through Carter, was typified by massive federal spending on housing. The typical model for disadvantaged citizens was to build large scale, high density apartment complexes with subsidized rents. These projects were largely a failure in social terms as has been well documented by authors, both conservative and liberal, writing about crime, alienation, and anti-social behavior caused by high density living and lack of control over one's circumstances.

The New Federalism initiated during the Reagan presidential administration and continued by the Bush administration turned much of the cost responsibility for social aid programs back to the states, thus relieving the federal government of the funding burdens, in part as an effort to reduce federal budget deficit, but also as a reaction to the public impression that government had gotten too big. Reinforcing this impression is the perception that the federal government's high spending

levels bring no return of high quality, safe housing. Although the Clinton administration has the stated goal of returning at least somewhat to previous federal spending priorities, the reality facing the President and HUD Secretary Henry Cisneros is a budget constrained by domestic spending limits.

This perception is buttressed by the fact that currently more than 70,000 public housing units nationwide are in disrepair and vacant, plus an unknown number that do not meet housing codes. There is no shortage of demand as any recent visitor to a large metropolitan area can attest to by the number of homeless individuals on the streets.

Federal spending in billions of dollars for housing in the period from 1976-1989 peaked at \$32.3 billion in 1978 and declined to about \$10 billion in 1989. The HUD housing budget funded for fiscal year 1991 was three billion dollars. This source of this was the Cranston-Gonzales Housing Act of 1990 and includes all subsidies for units that are occupied, rehabilitation of substandard units, and funding for tenant empowerment programs. Applying this amount to the units that are currently uninhabitable allows only forty thousand dollars per unit for renovation without considering operating cost subsidies.

State and local authorities, who actually have to administer the public housing within their jurisdictions, have to not only contend with reduced federal spending support, but with reduced local ability to raise money. This situation is exacerbated by the growing demands on public sector funds from other areas such as education, pension needs, government employees, deferred infrastructure expenditures and mandated social programs.

Aside from deteriorating public housing, ill conceived housing management structures and the reduction of funding to run housing, another issue in the housing debate is the permanence of public housing availability to the affected groups. Despite the stated goal of the housing act of 1949, there is no explicit right to housing in the United States. The policy debate on this issue becomes; should public assisted housing be a transitory benefit to the temporarily disadvantaged or should it be (as many have argued it has become) an entitlement into perpetuity for the recipients? The other part of the question is, should government be in the housing business as either an owner or a manager? Are these functions better served by the private sector? In most cases, a person's political ideology defines their stand on these issues.

Homeownership programs are a method of addressing these issues, and thus were part of the solutions proposed by Jack Kemp, former Secretary of HUD. Ownership programs involve selling the public housing unit at below market value to the tenant. Unpopular to an extreme with most housing advocates, these tenant sales have not been funded by Congress.

The sale of public housing to tenants was first tried by England's Thatcher administration as a way of reducing the tremendous cost of their welfare state, generating much controversy. From this experience, free market believers laud the empowerment opportunities for former tenants and for getting rid of unproductive government assets. Housing

rights activists, conversely, claim the policy has further stratified society into haves and have nots and threatens the "good" public housing stock as only the best units are purchased. However, English public housing tends to be detached single family style dwellings so their experience may not be readily applicable to the American situation.

A method currently in use to improve both the quality of public housing and the lives of those that live there involves giving tenants or residents a stake in the management of the complex in which they live. Like ownership opportunities, the tenant managed public housing model empowers tenants. Pilot programs are currently under way throughout the country and have proved successful over the past ten to fifteen years in major cities throughout the country, including Boston and Washington. Benefits are lower vacancy rates, reduced numbers of uninhabitable units and lower crime rates within project boundaries. Drawbacks are the inability of some tenant management groups to overcome the adversities faced in dealing with the problems of running an apartment complex with limited resources, and who then become unwilling to continue in the management role.

PROBLEM DEFINITION AND MODEL STRUCTURE

With public housing as the policy under consideration, this model is intended for use by policy makers and policy influencers. Policy makers in this case would be politicians including legislators, governors and mayors, career bureaucrats, and cabinet appointees. Influencers would include members of the press, academics and advocates of social and housing issues.

The approach to this decision is in terms of the control of ownership or management of public housing. The reasoning behind this is that as the failures of traditional approaches have mounted, shifts in control and management of public housing closer to the stakeholders who deal with it regularly have shown promise as discussed above. The questions inherent in the decision are:

- * how do ownership and management changes fare when the influences and effects of all groups are taken into account, *
- * how do policymakers and policy influencers balance the various interests, and
- * how far do we go?

This model allows policy makers to balance the views of the stakeholders to the decision taking their views into account while balancing that against the interests of the other stakeholders. The reason for this is that the decision on housing policy is too important to our society for any one group to be able to make a decision that impacts on other groups without their input or interests considered, no matter how little priority the person making the decision gives to various stakeholders.

This project is an attempt to build a public policy decision model that rationalizes the political process. Making the decision strictly on the basis of an intuitive synthesis of the relevant information poses problems to the decision maker. Among these are the concept of bounded

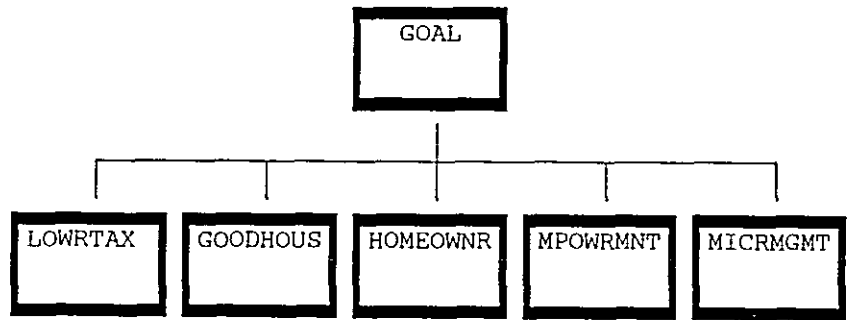
rationality, or the human limitation to conceive of only a finite number of problem elements and their relationships at one time. Systematically analyzing the problem in a hierarchy allows us to make better decisions.

In a problem as complex as deciding housing policy, the tradeoffs among alternatives, objectives and stakeholders are too complex for the mind to comprehend all at once. Utilizing the Analytic Hierarchy Process and Expert Choice software, the problem was systematically analyzed using two decision hierarchies. The first determines the overall importance of the stakeholders, the derived results becoming inputs to the second model, where the preferred public housing strategy alternative is evaluated.

The overall objectives of public housing policies make up the top level of the first hierarchy. The lower level of the hierarchy contains the housing policy interest groups, or stakeholders. Systematically comparing the stakeholder interests under each objective determines the overall priorities of the stakeholders. The priorities of stakeholders are then utilized in the actual decision model, where the action alternatives are compared.

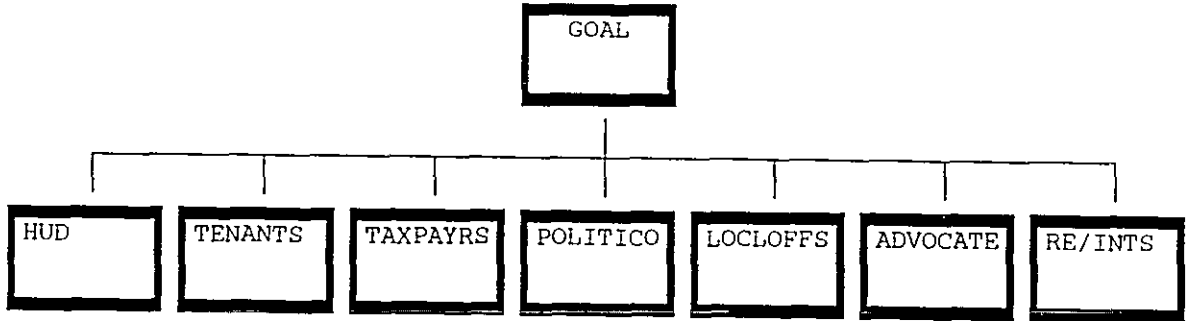
The goal, or decision, found at the highest level of the hierarchy in the first model is to determine the most important stakeholder in the decision to change public housing policy. The next level is the objectives, or criteria, that should be met when this decision is made. The objective level of the hierarchy is shown below:

Determine the most important stakeholder for public housing

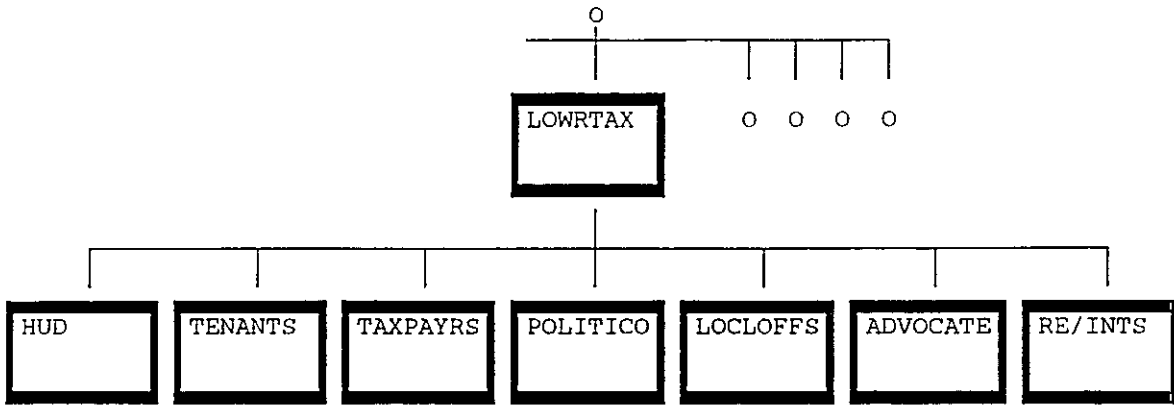


The stakeholders that are affected are on the next level, and form the alternatives for the decision:

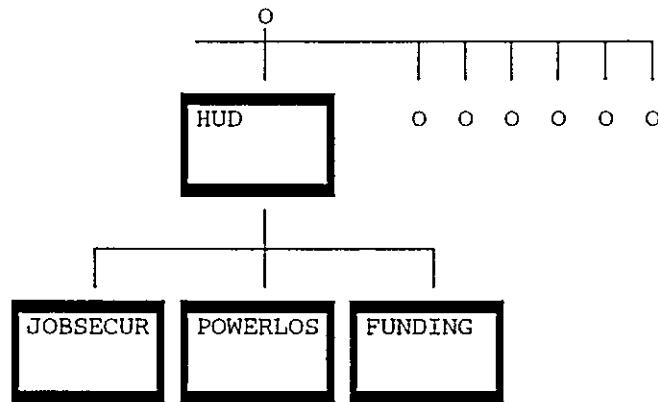
To determine who should own or manage public housing



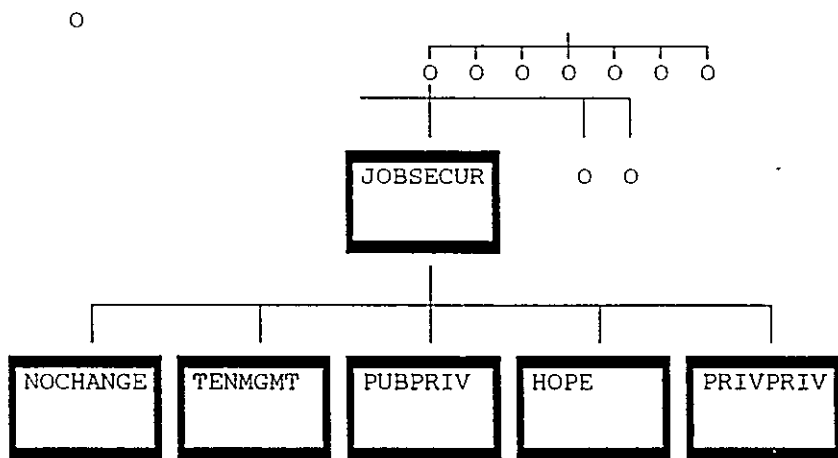
The stakeholders in turn become the objective level of the second hierarchy, which determines the preferred alternative course of action.



The stakeholder concerns appear in the hierarchy of the second decision model as follows:



Finally, the lowest level of the hierarchy is where the decision alternatives, or choices, are found, as shown below.



OVERALL DECISION OBJECTIVES

When making a decision such as this that impacts on many groups in society, there are bound to be conflicting objectives so that if one group or interest predominates another may not have any of its interests addressed.

Among the objectives in setting a national housing policy are supply and delivery issues such as creating good housing for those in need and maintaining it properly, social issues which include providing access to the economic system and empowerment, and economic issues including funding needed programs while reducing the impact on the taxpayer as much as possible. Surrounding these issues are the politics of housing, or the effects on and by the power structure both local and national in determining how the disadvantaged of the country will be housed and who will control that process.

With these conflicting views in mind the following objectives for making the decision were developed:

Lowering Taxes: Reducing the tax burden, either currently or in the future, on federal and local taxpayers is an integral consideration in any responsible public policy decision in order to better ration scarce tax resources.

Providing Good Housing: Delivery of adequate housing units is, after all, what a national housing policy should be accomplishing.

Home Ownership Opportunity: Providing traditional American upward mobility through home ownership is a worthy societal goal and should be reflected in long range housing policy objectives.

Empowerment: Giving people meaningful control of and decision capabilities in their lives. It has been substantially demonstrated that people are better able to move forward in their lives if they have a meaningful stake in their living situation.

Micromanagement: The micromanagement of local issues by Washington HUD officials. Shall we have local control or remote control of structures and institutions in our communities.

STAKEHOLDERS AND THEIR INTERESTS

Stakeholders and their respective interests in this decision are defined in this model as:

Tenants: public housing tenants, a group usually left out of the decision process, but who are the most directly impacted by housing policies. Their primary interests are maintaining low rents, maintaining a safe environment and security from having to relocate. All other stakeholder groups have their interests represented similarly in the hierarchy.

Taxpayers: Federal income taxpayers, another group not usually well represented in the decision process, but who end up paying the bill. Their interests include self determination or control of how tax dollars spent, whether taxes are used for local or distant/national objectives and community standards or the upgrading of public housing in their community.

HUD: HUD Officials, as the traditional trustees of national housing policy have a vested interest in shaping new directions. Among their concerns are job security, the loss of their power base, and the loss of program funding. All of these would jeopardize their livelihoods in some fashion.

Politicos: National elected and appointed officials. Change is a threat to those in current control as they may lose power and the control of change is one key to continued power. Politicos also have, in some cases, the desire to provide constituent services as part of the trade off for power gain. Their concerns are seen in the hierarchy as:

Advocates: Housing and Homeless advocates are generally motivated by the need to feel they are helping a disadvantaged group. They further their causes by gaining the attention of the press and using that as leverage in their fund raising attempts. The money is used to further their causes.

Locloffs: Local Officials, who generally have full bottom line responsibility for public housing in their jurisdictions. Concerns of local officials are local control of local problems and maintenance of their political power. Local officials interests are represented by:

RE/INTS: Private real estate interests have concerns regarding profits from ownership or management, money for construction of new public housing or rehabilitation of existing stock, and the image of the industry in the eyes of the public. Real estate interests appear in the model as follows:

DECISION ALTERNATIVES

In keeping with the overall goal, Determine Who Should Own and/or Manage Public Housing, we defined five different alternatives or solutions for who should own or run public housing as follows: Tenant Management, HOPE (Home Ownership for People Everywhere), Retain Status Quo, Public Ownership combined with Private management, and Private Ownership combined with Private Management.

Tenant Management, currently funded under the Cranston Gonzales Housing Act of 1990, encourages Public Housing Authorities to turn over to public housing residents management of their own buildings. Concerns include the dismantling of current housing authority staffs and whether the tenants actually want that responsibility.

HOPE allows currently eligible public housing tenants to purchase their homes at a discount below market value. This program is also currently funded by the National Housing Act of 1990 and is being run at the pilot project level. This option is heavily backed by HUD Secretary Jack Kemp. Concerns center on selling public assets below market value and

the ability of the purchasers to continue the upkeep of their housing. This alternative is of no use to people totally dependent on public assistance.

Maintain Status Quo provides no change from the traditional, paternalistic housing authority model. Currently, HUD funds the majority of public housing in the United States, which is run on the local level by Public Housing Authorities (PHAs). Their budgets in turn are largely dependent on HUD subsidies to operate the housing under their control. Concerns revolve around the continued deterioration and under-utilization of public housing stock under the stewardship of these agencies.

Public Ownership/Private Management means that the government retains ownership of the property but funds a private firm to manage the properties in the hope that the profit motive will bring more efficiencies and somehow improve the properties while lowering costs. The primary concern is that the free enterprise system has produced plenty of neglected, substandard dwelling units.

Private Ownership/Private Management absolves the government of the responsibility altogether by selling public housing properties to private investors. After selling the property, HUD forfeits controls over the housing. The mechanisms for protection of tenant rights and maintaining the properties for low to moderate income users are the major concerns.

EVALUATION OF STAKEHOLDER PRIORITIES

Once the hierarchies were constructed, evaluating the alternatives for each model was carried out using the various comparison modes in Expert Choice.

The evaluation of alternatives or the priorities of the stakeholders in the public housing decision were accomplished in the first model using the verbal comparison of importance mode.

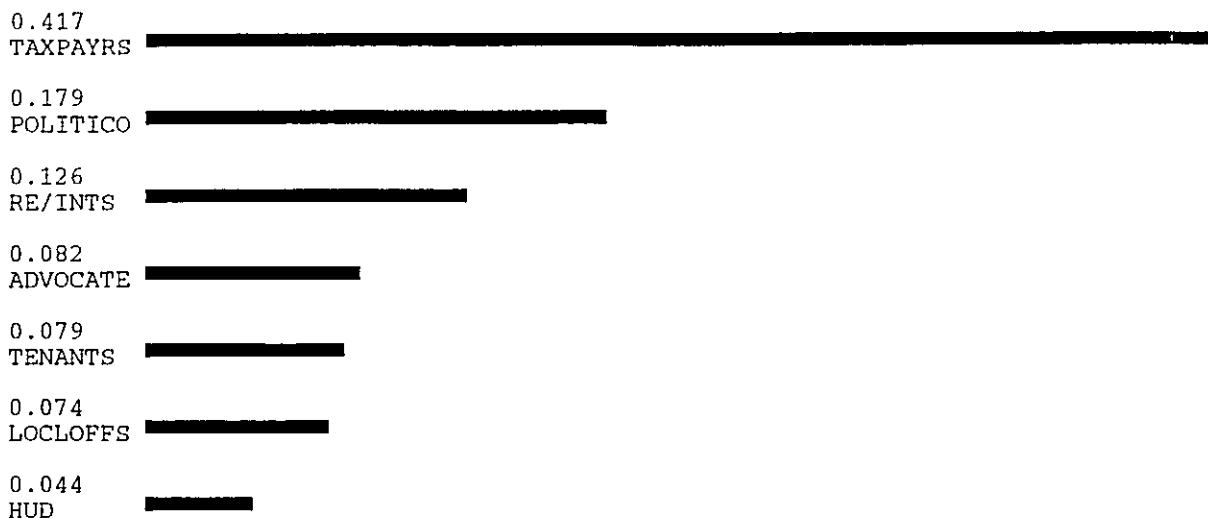
Under each objective, the entire set of stakeholders had to be compared in this fashion. For each node, the matrix of priorities looks as below:

JUDGMENTS AND PRIORITIES WITH RESPECT TO
GOAL > LOWRTAX

	TAXPAYRS	POLITICO	RE/INTS	ADVOCATE	TENANTS	LOCLOFFS	HUD
TAXPAYRS		5.0	5.0	6.0	3.0	5.0	5.0
POLITICO			3.0	3.0	2.0	3.0	3.0
RE/INTS				3.0	2.0	3.0	2.0
ADVOCATE					(1.0)	3.0	2.0
TENANTS						(2.0)	3.0
LOCLOFFS							3.0
HUD							

Matrix entry indicates that ROW element is _____
 1 EQUALLY 3 MODERATELY 5 STRONGLY 7 VERY STRONGLY 9 EXTREMELY
 more IMPORTANT than COLUMN element unless enclosed in parenthesis.

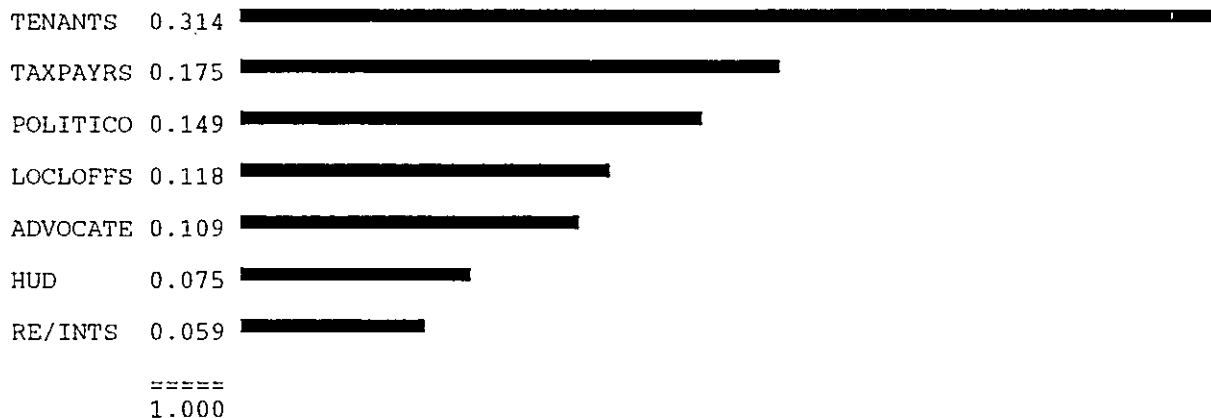
Thus, in the above matrix, taxpayers are strongly more important than politicians. Synthesizing the results for this matrix gives:



This process was completed under each objective for all seven stakeholders. The results for each stakeholder are discussed below.

Synthesizing the first model gives the overall priorities of the stakeholders as follows:

Sorted Synthesis of Leaf Nodes with respect to GOAL
OVERALL INCONSISTENCY INDEX = 0.06



According to our judgements, tenants are by far the most important stakeholder group followed by taxpayers. The least important stakeholders are real estate interests and HUD officials.

EVALUATION OF HOUSING POLICY ALTERNATIVES

For the second model, which determines the overall public housing strategy alternative, our evaluation methodology was to start with

stakeholders and their relationships to the alternatives. First, we evaluated the importance of the stakeholder concerns. Once the relative importance of the stakeholder concerns was derived, we then evaluated the alternatives from the stakeholders viewpoint under each of the concerns. For example, when evaluating the alternatives under HUD officials, we evaluated Job security to be strongly more important than Power Loss. By comparing the HUD officials concerns in this way, the relative weights of the priorities are derived. Other judgements are shown in matrix form in the figure below.




JUDGMENTS AND PRIORITIES WITH RESPECT TO
GOAL > HUD

	JOBSECUR	FUNDING	POWERLOS
JOBSECUR		3.0	5.0
FUNDING			4.0
POWERLOS			

Matrix entry indicates that ROW element is _____
 1 EQUALLY 3 MODERATELY 5 STRONGLY 7 VERY STRONGLY 9 EXTREMELY
 more IMPORTANT than COLUMN element unless enclosed in parenthesis.

JOBSECUR :Job security for Hud Officials
 POWERLOS :Loss of HUD officials power base
 FUNDING :Loss of program funding.

Thus in the above matrix job security is moderately more important than funding and strongly more important than power loss. Synthesizing these results gives:

0.627
 JOBSECUR 
 0.280
 FUNDING 
 0.094
 POWERLOS 

INCONSISTENCY RATIO = 0.082

This process was repeated for each of the seven sets of stakeholder concerns. Once the evaluations of the stakeholders concerns were complete, the alternatives under each of the concerns were evaluated. This was carried out using the verbal comparison of preference mode using the question form:

From this stakeholders view with respect to this concern, which of the alternatives is preferable?

The judgement matrices for the alternatives under each stakeholder concern were similar to the following:

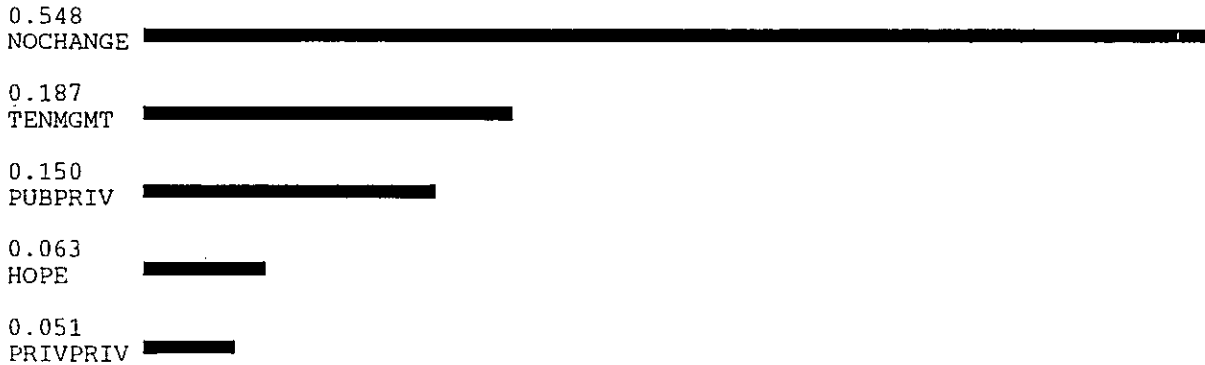
JUDGMENTS AND PRIORITIES WITH RESPECT TO
 GOAL > HUD > JOBSECUR

	NOCHANGE	TENMGMT	PUBPRIV	HOPE	PRIVPRIV
NOCHANGE		5.0	5.0	5.0	7.0
TENMGMT			2.0	3.0	4.0
PUBPRIV				3.0	5.0
HOPE					1.0
PRIVPRIV					

Matrix entry indicates that ROW element is ___
 1 EQUALLY 3 MODERATELY 5 STRONGLY 7 VERY STRONGLY 9 EXTREMELY
 more PREFERABLE than COLUMN element unless enclosed in parenthesis.

- NOCHANGE :Retain status quo.
- TENMGMT :Tenant Management of Public Housing.
- PUBPRIV :Public ownership, private management of public housing.
- HOPE :Tenant ownership of public housing units.
- PRIVPRIV :Private ownership and private management of public housing.

The following ranking of alternatives was derived for this node:



This process was repeated for each of the nineteen stakeholder concerns in the model.

STAKEHOLDER PRIORITIES

The relative importance of the stakeholders, who in this model are on the objective level, were determined in the first model and those results entered using the Absolute Mode of Expert Choice. In this way the pairwise comparisons and synthesized results from the first model are integrated into the second model, where the actual housing policy alternatives are evaluated.

CHOOSING THE OVERALL HOUSING POLICY ALTERNATIVE

Once the objective level priorities are entered from the stakeholder hierarchy, a synthesis is performed to determine the overall priorities of the decision alternatives. (The details are shown in the Appendix C)

