

USE-VALUE TAXATION IN VIRGINIA: ADMINISTRATIVE
PRACTICES AND PROBLEMS,

by

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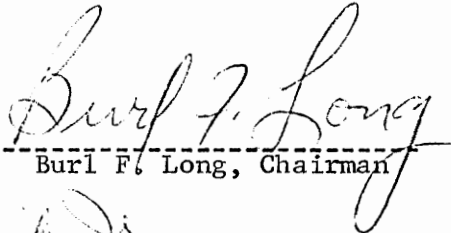
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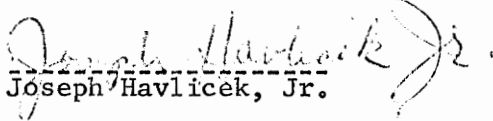
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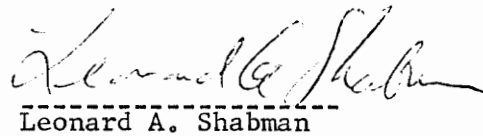
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CHAPTER I

INTRODUCTION

Nature of the Problem

In 1973, Use-Value Taxation came into effect in Virginia, raising to 31¹ the number of states having provided some form of differential assessment.² These laws provide for the valuation of land on the basis of its use-value rather than its market value. The increase in the number of states having provided for differential assessment in recent years is evidence of the growing public concern over the loss of agricultural lands to non-agricultural uses.

Although the objectives of these differential assessment laws vary from state to state, two objectives are common to most of these laws. The first objective most commonly attributed to these laws is

¹Thomas F. Hady and Ann Gordon Sibold, "State Programs for the Differential Assessment of Farm and Open Space," 1974, p. 1.

²Laws of this type generally are classified into three categories. The first, the preferential assessment law, provides for the assessment of land according to its current use and imposes no penalties for conversion of the parcel to another use. The second category, the deferred tax law, also provides for the assessment of land according to its current use. It does, however, also provide for a penalty to be levied if the land changes to a non-qualifying use. The Virginia special assessment tax law is of this type. The third category, the restrictive agreement, is a contract between the owner and the local government to keep the land in a given state in return for differential assessment. This type of agreement is generally more strict and binding than the other two. [Thomas F. Hady and Ann Gordon Sibold, 1974, p. iii].

the preservation of agricultural lands. In recent years, average farm size and productivity have been increasing. This in effect has increased the returns allocated to the land factors, but decreased the returns to human factors. Also, with increasing populations and urban sprawl, the non-farm demands for agricultural lands are increasing. This has created a situation in which farm real estate values and tax burdens are increasing, yet net farm income is decreasing. Thus, real estate taxes represent a higher percentage of personal income taxes in the farm sector than in the non-farm sector.³ The farmer, therefore, has the incentive to convert his land to non-agricultural uses due to its increased value in the non-agricultural sector, and its increased costs of holding in the agricultural sector.

The second objective commonly stated is the provision of tax relief for the farmer in order to make these taxes more equitable. Many feel that since the farmer uses fewer community services per acre than the average resident, his taxes are unjustly high. Also, since farming wages and profits are typically below those of the average American, and the provision of food is a service to society, many feel the taxes should be reduced.

Several researchers have recently begun to ask, "Do existing differential assessment laws meet these objectives?" Interestingly enough, their evidence indicates that these laws may not meet either of these objectives.

³This paragraph summarizes in general terms much of the discussion of Chapter I from the study by Gloudemans, 1974.

Both of these objectives are incorporated in the objectives of the Virginia Use-Value Assessment Law. The validity of the arguments supporting these objectives, however, is questionable.

Studies by Holland (1974), Gloude-mans (1974), and Barron and Thomson (1973) suggest that these differential assessment laws have little impact on the preservation of agricultural lands. It appears that when the farmer considers the differential assessment in comparison to the potential profits of conversion, the tax relief becomes insignificant.

It has also been shown in studies by Gloude-mans⁴ and Hady and Sibold that differential assessment laws may not provide farmers with better tax treatment.⁵ Existing evidence suggests that farm property may already be assessed at less than market value in states where no differential assessment laws exist, and therefore, need no special consideration. Also, some argue that if income is the major consideration in providing tax relief, then more groups besides farmers deserve tax relief.

Whether or not the Virginia Use-Value Assessment Law meets these objectives has not been fully investigated. John Knapp (1976), in a study of eleven jurisdictions with use-value taxation, attempted to evaluate for the tax year 1975, the effect of the law on

⁴Robert J. Gloude-mans, "Use-Value Farmland Assessments, Theory, Practice, and Impact," (International Association of Assessing Officers, Chicago, Illinois), 1974, p. 37.

⁵Thomas F. Hady and Ann Gordon Sibold, "State Programs for the Differential Assessment of Farm and Open Space Land," (U.S. Department of Agriculture, Washington, D.C.), April 1974, pp. 6-9.

assessments, taxes, the tax base, and land use. Due in part to the short period of implementation of the law in these jurisdictions, the results were not conclusive. In none of the localities did the acreage of participating parcels exceed 11 percent of the jurisdictions' total acreage. Even in this study, however, the evidence suggests that the effect of the tax law on land use will be negligible, and the decrease in the tax base may be significant.

Participation of landowners and localities in the program is increasing. By 1976, an additional 11 jurisdictions had adopted use-value taxation ordinances. The participation in the already enlisted jurisdictions is also likely to have increased. And accompanying this increased number of participants is an increase in the cost of administration and a decrease in the total tax base.

Also, many more jurisdictions in Virginia are likely to adopt use-value taxation ordinances. In 1975, the Virginia legislature passed an amendment (58-760) providing for a reassessment of all real estate at 100 percent of its fair market value. This in effect will eradicate any existing de facto preferential assessment in jurisdictions having no use-value assessment ordinance, and encourage these same jurisdictions to pass ordinances providing for differential assessment.

Due to the increased number of localities providing Use-Value Taxation, administrative costs and revenues foregone as deferred taxes will apparently increase. Should the Use-Value Taxation statute be ineffective in meeting its objectives, land conversion to non-agricultural uses and farm tax burdens in Virginia are also likely to

increase. Not only will the citizens of these localities not be provided with the proposed benefits of this land-use program, but they will pay for the program with increased taxes, just as if these benefits had been provided.⁶ In order to insure that tax dollars are not allocated to a program that does not meet its stated objectives, an evaluation of the impacts of Use-Value Taxation in Virginia is warranted.

General Purpose

Whenever a law or policy is evaluated by its impacts in order to provide feedback for corrective measures, it is important to recognize two separate sources of error. When a law is passed, this represents an attempt to apply a legal principle. Given the facts at the legislators' disposal, the principle is modeled into a law which attempts to meet a given set of goals and objectives. Herein lies the first possible source of error. Due to a misconception of the facts, a change in the facts over time, or any number of problems in its formulation, the law may not be theoretically capable of providing the means necessary to meet its objectives. This is the source of error an evaluation usually seeks to discover in order to make note to the legislators for its correction.

Once the law is passed, it is up to the local officials to implement the law. In certain cases, the law is not administered as

⁶It should be recognized at this point that if farm real estate taxes are decreased, non-farm real estate taxes must be increased, assuming no services are discontinued.

originally planned and as such cannot meet its original objectives. This type of occurrence represents the second source of error.

When a law is evaluated according to its impacts, both types of error are identified, but the sources are not readily distinguishable. If feedback provided for legislative revision did not distinguish between the impacts attributable to each source, it would not identify the source of the problem, and any legislative revision based on this type of information would treat the symptom, rather than the ailment. Before we can determine how to revise a law or policy, or to judge its effectiveness, we must first acknowledge these sources of error as separate and attribute each of the errors to its correct source. Before the Use-Value Taxation Law can be evaluated, and errors in theory can be corrected, any deviation from the legislators' intent, due to administration, must first be identified. Once this source of error is identified, and corrected, then the theory behind the law may be tested. The general purpose of this thesis is to identify the factors contributing to this second source of error. By doing so, a basis for evaluating the Use-Value Taxation Law will be provided.

Specific Objectives

Specifically, the objectives of this thesis are:

- (1) to explain the process of administering use-value taxation,
- (2) to determine the current practices in administering use-value taxation at the local level, and

- (3) to identify those applications of the law which deviate from the legislative intent.

This explanation of the decision process encountered in administering use-value taxation will be facilitated by the use of a model depicting the flow of information to the administrator and the influences which shape the decision from this information. This model will be supported by data pertaining to the current practices in administering use-value taxation. Potential applications of the Use-Value Taxation Law contrary to its intent will be identified from the model; existing misapplications will be identified from the data. Methods for avoiding potential problems and correcting existing problems will be prescribed, based on the workings of the decision model.

Methodology

The decision model, as explained above, will be based on the flow of information to administrators. This information flow is based on the provisions of state and local governments, and is also dependent on landowner inputs. The influencing factors are adopted from the works of William Niskanen⁷ and Herbert Simon.⁸

The data used to support this model and to determine current practices of administering use-value taxation in Virginia were obtained from a survey of the Commissioners of the Revenue, Real Estate

⁷William A. Niskanen, Jr., Bureaucracy and Representative Government, 1971.

⁸Herbert A. Simon, Administrative Behavior, 1976.

Assessors and Treasurers in twenty of the twenty-two jurisdictions having approved use-value taxation for 1976.⁹

Contents of this Thesis

Chapter II defines the terminology used throughout this thesis. The terms defined in this chapter are: intent of the law, bona fide farmer, speculator, administrator, misapplication of the law, and qualifying use.

Chapter III explains the workings of the model used to depict this decision process. In this discussion, the information sources and influencing factors are identified, and the reasons for misapplications of the law are explained.

Chapter IV includes two different sections. In the first part of this chapter, the methodology used in deriving the model and in collecting the survey data are discussed in more detail. In the latter part of the chapter, the model is applied to three phases of decision-making encountered in administering use-value taxation: the entry of land parcels into the program, the maintenance proceedings for parcels in the program, and the exit of land parcels from the program. From this application of the model, certain tendencies are identified, and are analyzed in this section. This analysis is supported with arguments based on the workings of the model, accompanied with the presentation of survey data compiled for this study. The survey data is presented in tabular form in this chapter.

⁹Manassas City and Petersburg City were not included in the survey. Manassas City because these parcels were originally part of Prince William County. Petersburg City chose not to participate in this survey.

Chapter V presents the summary and conclusions. Also included in this chapter are the implications of this study, policy recommendations based on the decision-model, and questions pertaining to additional research.

Included in the Appendix are examples of the application, roll-back, and revalidation forms utilized in the localities participating in the survey.

CHAPTER II

DEFINITION OF THE INTENT OF THE USE-VALUE ASSESSMENT LAW AND OTHER TERMS

Throughout this thesis reference will be made to the purpose of the Use-Value Assessment Law, the legislative intent of the law, and the basic objectives for which it provides. Before proceeding further, this purpose needs to be discussed and some boundaries set to define what is in keeping with this purpose.

"The purpose of the program is stated as:

To encourage the preservation and proper use of such real estate in order to assure a readily available source of agricultural, horticultural and forest products and of open spaces within the reach of concentrations of population,

To conserve natural resources in forms which will prevent erosion and to protect adequate and safe water supplies,

To preserve scenic natural beauty and open spaces,

To promote proper land-use planning and the orderly development of real estate for the accommodation of an expanding population, and

To promote a balanced economy and ameliorate pressures which force conversion of such real estate to more intensive uses and which are attributable in part to the assessment of such real estate at values incompatible with its use and preservation for agricultural, horticultural, forest or open space purposes."¹

These are the goals provided for by the Virginia General Assembly with the enactment of the Use-Value Assessment Law. For the

¹State Land Evaluation Advisory Committee, "Manual of the State Land Evaluation Advisory Committee," (June, 1976), p. vi.

purpose of this study, these goals have one major fault; by being so broad, one cannot tell for certain what is within the intent of the law. Many of the terms used are ambiguous; for example, what is "proper" land-use planning? In short, without qualifying these goals, an evaluation is impossible. One cannot determine if goals are met unless standards or marks of achievement are set to provide a benchmark, or point of measurement.

Although the objectives of differential assessment laws differ from state to state, they usually fall into two general categories: improving equity and influencing development.² In reference to the equity argument, the supporters of differential assessment argue that the farmer supports an unfair portion of the tax burden. They argue that his income is small relative to his property and that he is unable to pay, that the farmer requires few government services in proportion to his property, and that the high property taxes force the farmer to sell out prematurely. In terms of influencing development, supporters of differential assessment argue that farmers and other landowners qualifying for differential assessment provide society a service by protecting and providing scenery, wildlife habitat, water recharge areas, as well as fresh food and horticultural specialties.³ Whether these are valid arguments is the subject of much controversy,

²Thomas F. Hady and Ann Gordon Sibold, "State Programs for the Differential Assessment of Farm and Open Space Land," (April, 1974), p. 6.

³Ibid., pp. 6-7.

and will not be taken up here.⁴ The point to be made here is that differential assessment seeks to provide tax relief for the farmer in order to improve his economic viability and to provide for orderly and directional development.

For the purpose of this study, we shall assume that the Virginia Use-Value Assessment Law has the same objectives as use-value assessment laws in other states. In order for an application to be within the intent of the law, it should aid the bona fide farmer by easing the tax burdens intensified by increased non-agricultural market demands, while at the same time reducing the rate of conversion of agricultural lands to a level more in line with the rate of development desired by the local officials. [It should be mentioned that since the Virginia differential assessment provides for other than agricultural land, the word farmer may include also the owners of other types of qualified lands, as provided for by the statute.] For our purposes, a bona fide farmer will be one who owns land primarily to earn current income from its productive capacities, as distinguished from someone who owns land primarily for its value appreciation, who shall later be referred to as a speculator.⁵ One may readily observe

⁴For discussion of these arguments, see Thomas F. Hady and Ann Gordon Sibold, "State Programs for the Differential Assessment of Farm and Open Space Land," (April, 1974), pp. 6-9, or Robert J. Gludemans, "Use-Value Farmland Assessments, Theory, Practice, and Impact," (1974), pp. 10-12.

⁵Thomas F. Hady and Ann Gordon Sibold, "State Programs for the Differential Assessment of Farm and Open Space Land," (April, 1974), p. 15.

that even this qualification is quite broad, as it must be, due to the nature of the problem. Its strengths lie not in its inclusions, but in its exclusions.

By specifying the recipient of such aid as being the bona fide farmer, one may exclude from receiving these benefits, persons who might attempt to qualify, but would in fact not provide those services earlier mentioned as being provided by farmers. In particular, the law has no intention of providing tax relief for speculators, as defined above. One could easily visualize how land speculation might speed land conversion and haphazard development. Furthermore, use-value assessment seeks to ease tax burdens intensified by increased non-agricultural demands, by taxing the property according to its value as agricultural land. No further reduction is desired. This program is not intended to be a welfare program for a particular profession. It instead attempts to tax the property according to its value in that use (whether it be agricultural, horticultural, forest, or open space). At the same time, the statute seeks to control the rate and direction of development. The rate and direction of development varies from one locality to the next, but obviously the statute seeks to decrease the previously existing rates of development of qualifying lands, rather than increase them. For the purposes of this study, these distinctions should be sufficient.

Other terms used later in this study require some definition at this point. For our purposes, an administrator shall be assumed to be the state, or in most cases the local, government official who has the duty or decision-making power being discussed at that time. This term

is used in place of the official's title, due to differences in local government structure. In some of the jurisdictions having use-value assessment ordinances, the program is conducted by the Commissioner of the Revenue and his staff, while in other jurisdictions, the Real Estate Assessor and his staff are in charge of the program. The first official is elected, whereas the second is appointed. Due to different influences involved, one may be led to expect these two officials to behave differently. The elected official would be expected to be more aware of local opinions, since he is directly responsible to his constituents. If his performance is not to the liking of the voting majority, he may find himself without a job after the next election. The Real Estate Assessor, although responsible to the public, answers directly to the Board of Supervisors. Should his performance be unsatisfactory, he will hear of it immediately. One may suspect this official to be isolated from public opinion, but this is not the case. His performance is indirectly influenced by public opinion, through the Board of Supervisors, since each of the members of the Board of Supervisors is an elected official. The difference between the factors influencing the Commissioner of the Revenue and the Real Estate Assessor is that the former is directly responsible to the public while the latter is indirectly responsible to the public. Also, the Assessor's position would seem to be less secure in that he would be more readily replaced should his performance prove unsatisfactory. The Commissioner, on the other hand, would likely remain in his job until the next election, (assuming no impeachment proceedings).

A second difference in these two positions, is that their duties other than the administration of use-value assessment are different. Simon notes that the training for many positions occurs on the job.⁶ Since the jobs differ, the training of these officials may also differ. Therefore, one may expect to observe slightly different behavior from these officials. This point will be discussed further in Chapters III and IV.

A misapplication represents any application of this statute contrary to its intent, as explained earlier. This term bears no reflection on the competence or efficiency of these officials, nor are these officials considered to be more or less competent than other citizens. This term instead suggests that the practice in questions does not provide the intended benefits, and may actually provide the opposite. An example of a misapplication would be the assessment of lands at use-value which were not intended to be qualified for use-value assessment.

Qualifying use represents the use of land for agriculture, horticulture, forest, or open space purposes as provided by the local ordinance. The mere use of land in these categories does not arbitrarily make it qualified. To be qualified, these lands must contribute to the goals provided for by the statute. The intention of this statute might be redefined as intending to aid the bona fide farmer by easing the tax burdens intensified by increased nonagricultural market demands, while at the same time reducing the rate of

⁶Herbert A. Simons, Administrative Behavior, 1976, p. 15.

conversion of qualifying lands to a level more in line with the rate of development desired by the local officials. In this definition of intent, the title "farmer," has a more general connotation; his crop is no longer restricted to agricultural marketable goods, but includes also forest products, horticultural products, and the benefits provided by open space.

CHAPTER III

A THEORETICAL MODEL OF THE DECISION-MAKING PROCESS

In determining the methods of application of the Use-Value Assessment Law, the administrator relies on procedural information from state and local governments, and information on the individual parcels from public records and applicants. With this information, the administrator then determines the correct procedure to follow and implements the law as he sees fit. This implementation goes into effect, and if the decision seems inconsistent with the law, the court system may be asked to make the final decision. This procedure may break down and a misapplication may occur. This misapplication may occur due to either of two reasons. First, the administrator may not have access to the information necessary for the application of the law as it was intended. Either the procedural information is lacking and the administrator does not understand how to apply the law, or the input for proper application is unavailable and he cannot apply the law. Second, the law may be applied contrary to its intent because the decision-maker is placed in a situation such that any person acting rationally would choose the alternative leading to this misapplication. For example, the administrator may be placed in a situation such that strict application of the ordinance appears to provide few benefits, while imposing costs in terms of time and

energy lost, and in some cases, endangering his job. Also, the applicant may be subject to similar influences. He may find himself in a situation such that he may gain by manipulating the law, his application, or the administrator to his own ends. These topics will be further discussed later in this chapter. The purpose of this chapter is to explain the application of the Use-Value Assessment Law in terms of a decision-making model, and to discuss the critical stages of the decision process, their sources of influence, and their impacts.

The decision model to be employed relies heavily on the concept of rationality. In its broadest sense, rationality implies that an individual will choose among available alternatives in a manner such that his benefits or satisfactions are as large as possible.¹ Not only is he supposedly aware of all possible alternatives, but he is also capable of choosing between them. This concept, as stated, implies both perfect information and also the capability to rank alternatives as being preferred or equal in preference to one another. In real situations, however, information is less than perfect, and the implications of various alternatives are often unknown, since the consequences of these alternatives lie in the future.²

In order to make this concept operational and of practical use in the model, a concept of limited rationality will be employed.

¹James M. Henderson and Richard E. Quandt, Microeconomic Theory, p. 6.

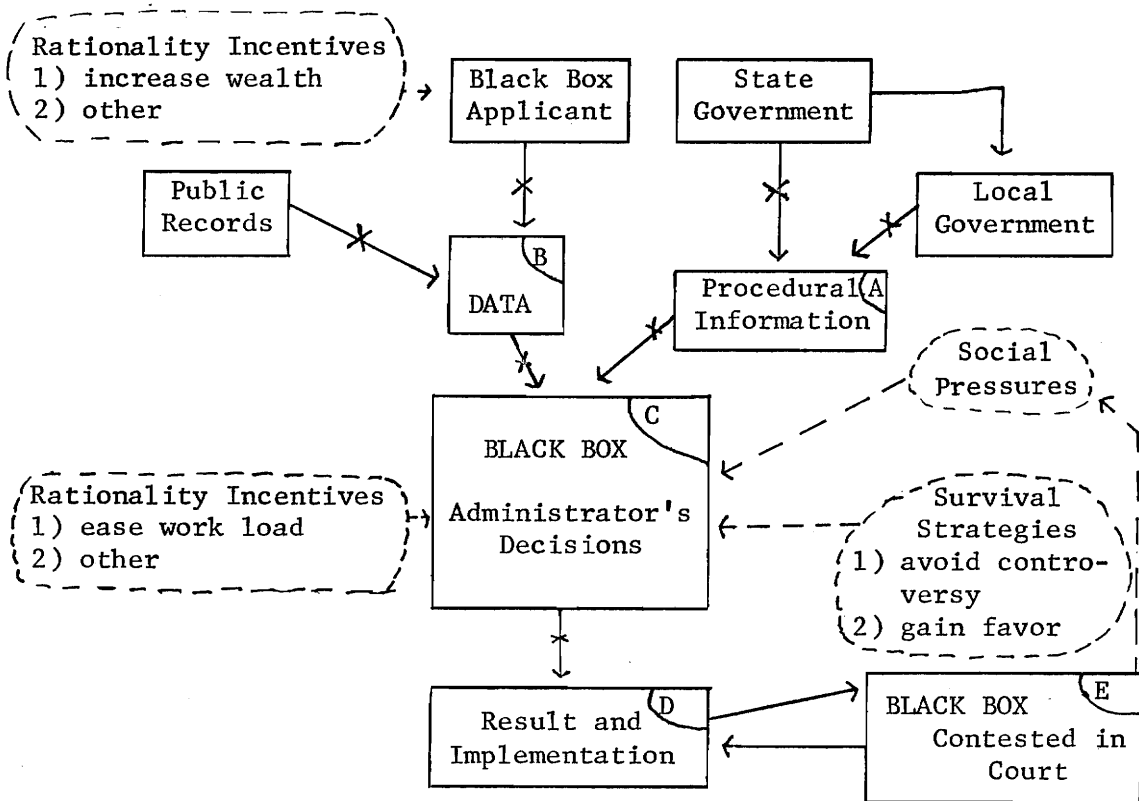
²Herbert A. Simon, Administrative Behavior, p. 81.

Instead of assuming an individual will choose among "available" alternatives in a manner such that his benefits or satisfactions are as large as possible, the concept of rationality employed will assure that the individual will choose among "realized" alternatives in a manner such that his benefits or satisfactions are as large as possible. Not only is it impossible for a decision-maker to be aware of all of his alternatives, to attempt to do so would require vast amounts of time. Since time has a positive value to the decision-maker, it would actually be irrational to attempt such a feat. At some point, the additional benefits of increased awareness would be exceeded by the costs of additional consideration. Therefore, the rational decision-maker will choose that alternative from the subset of alternatives of which he is aware, that appears to produce the maximum benefit or satisfaction.

The Decision Model

The model to be used is represented in Figure 1. This model represents the flow of information to the administrator; factors influencing the flow of information and the final decision are included. Even though the symbols used in the model are explained in the legend, additional comments are necessary at this point.

The model is based primarily on the flow of information. The route of information flow is indicated by solid lines, (—). The direction of the flow along this route is denoted by arrows at the ends of these lines, (→). For reasons to be discussed later, breaks in information flow may occur. Points of possible breaks are



Contains an element; either a decision stage or source of information



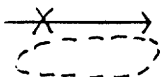
This element is actually a decision process itself; it is a process which cannot be seen or predetermined, only the inputs and influences may be estimated, the result may be observed. Motives may be estimated from the results.



Represents the directional flow of information.



Represents the directional flow of pressure or influence.



Represents a break in the flow of information.



Represents a source or pressure or influence.

Figure 1. A Model of the Decision Process at the Local Administrator's Level.

indicated by an "X" along the route where the breaks may occur. These "X's" merely indicate the location of a possible breakdown; simply because an "X" is shown does not mean the breakdown will occur. Instead, these X's mean that such a breakdown is possible, and if it occurs, it will be at this point in the model.

The plain boxes used in the model represent either a stage in the process of applying the law or a source of information. All information flow is between these plain boxes, or between these plain boxes and the special black boxes.

The black boxes are key elements in this model. These black boxes are given this name since what occurs within each is unobservable to all but the decision-maker represented in that black box. Each of the three black boxes represents a smaller decision process within the larger decision process of applying the law. Each of the three black boxes also represents a different decision-maker, with different incentives and different alternatives. Input to each decision-maker in terms of information flow, may be observed. How these inputs are treated may only be estimated, however, and although the available alternatives may be determined, the final decision may only be estimated. The impermeable nature of the black box, like that of the human mind, decreases the confidence in the predictability of the model. At best we may view the inputs, estimate the influence, and guess at the output. In cases where all influences tend toward one alternative, a sound prediction may be made. On the other hand, if influences seem to be offsetting, the weighting of each is known only within the black box, and the outcome is unpredictable.

The force of an influence or incentive is indicated by a broken line (---). The direction of force is denoted by an arrow (---->). These influences indicate values or considerations relevant to the decision at hand. The strength of the influence, as mentioned before, is unknown except to the decision-maker. In most cases, however, the directional effect of each influence taken singly may be predicted accurately, and in this way, provide some insight to the decision. The sources of these influences are represented in the model as circles made with broken lines ((---)).

For easy reference, certain stages of the model have letters of identification in the upper right hand corner of the box. These letters are means of identification for that branch of information flow or for that particular stage of the decision. No ordering of sequence or importance should be attached to the letters; instead each should be considered as a symbol of recognition or a trademark.

Obviously, all the influences relevant to the application of the Use-Value Assessment ordinances cannot be included. This model, as are all models, is the simplification of a complicated process. A model's value is twofold; first, it must be simple enough to use, and second, it should represent reality closely enough to be of some use. One without the other has no value. In leaving out certain minor influences, some predictability is lost in favor of ease in application. Those influences included represent the major features of the process. This model, as do others, makes the implicit assumption that the influences or elements omitted are of little practical importance, and have been omitted in order to simplify the model.

Procedural Information

Procedural information represents one of the two types of information needed for applying the law. Procedural information, as used here, is any explanation or information on how to administer the law. Steps to follow for parcels entering the program, staying in the program, or leaving the program fit this category. Also, procedural information is needed to explain treatments of special cases, such as those parcels where incorrect information was submitted on the application. Generally speaking, procedural information is needed to explain to the administrator how the law is to be applied.

The administrator receives procedural information from two sources. The Virginia state government provides the administrator with procedural recommendations as well as information in the form of the Use-Value Assessment Law. This statute not only provides direction to the administrator, but also to the government responsible for passing the local use-value assessment ordinance. The local legislators must follow basic guidelines provided by the state in keeping with the intentions of the program. This state influence upon the local ordinance is represented by the arrow connecting state and local government in the model.

The local government mentioned above, also provides the administrator with procedural information. Following state guidelines, the local government issues the specific ordinance to be applied.

These are in general the only sources of procedural information available to the administrator. Any such information lacking from state or local directions will be assumed unavailable from outside

sources. This potential information shortage is represented in the model as an "X" or break, in the flow of information (arrow) from the state and local governments to the administrator. This information shortage may have a significant effect on the administration of the use-value assessment ordinance. If the procedural information necessary for administration of the law is unavailable, this increases the probability that the law will not be administered as it was intended. In such a case, the goals of the law will not be met, and the program will have less beneficial impact, or may actually be detrimental to the community or society in general. Such an information break does not insure this will happen; it merely increases the likelihood. What happens is that such an information shortage may leave the administrator confused as to how the law is to be applied. By increasing his options, it thus increases his decision-making powers. The result is that the administrator is forced to make more decisions. In effect, the more decisions required of an uninformed decision-maker, the more likely is the application of the use-value assessment ordinance in a manner contrary to its original intent.

Data or Input on the Individual Parcels

The other type of information needed for administering the Use-Value Assessment Law is data or input concerning the individual parcels of land in the program. This information includes history of the parcel's use as well as its use qualifications, such as size and productivity. Other physical data are also included; these data include the presences of buildings, nonqualifying acreage, and the location of

the parcel. Basically, this information provides the necessary input required for determining the procedures to be taken and the methods of application of the use-value assessment ordinance.

This data comes to the administrator from two sources. One of these sources is public records. In some cases, public records have available information on land acreage, productivity, and management goals. Although not every locality has such records, some do. These records are available for the use of the applicant and the administrator.

The second source of data is the applicant. He is responsible for providing the remainder of the information needed for the administration of the law. His application verifies the qualification of the land for special assessment, and later in the program, he has the responsibility of notifying the local officials if a change in use occurs. Of the two sources of input, the applicant is the most important for two reasons. First, public records provide only a small portion of the information necessary for application of the use-value assessment ordinance. Second, the applicant is responsible for providing the necessary information; if some of the information needed may be obtained from public record, it is the applicant's responsibility to obtain it.

Although other sources of input exist, for example, consulting firms hired to determine qualifications, most are too costly to employ. Therefore, the model operates under the assumption that all input is provided by public record or the applicant. It is conceivable that information required by local officials is unavailable from

public records, or from the applicant. It is also possible that even when this information is provided, it is incorrect. Such situations are represented in the model by "X's" on the flow of information (arrows) to the administrator. Either a gap in information or the provision of incorrect information will have a significant effect on the model. Either of these occurrences will increase the probability that the law will be administered contrary to its intent, since it will cause the administrator to act with insufficient or incorrect information. A case involving insufficient information would force the administrator to make special adaptations in the procedure; this would increase his decision-making power, but at the same time, increase the probability of a wrong decision. A case involving incorrect information, on the other hand, would have no effect on the decision-maker's powers, but would increase the probability of a wrong decisions or an incorrect application of the law. Obviously, both situations are undesirable in terms of providing the intent of the law.

The applicant plays an especially interesting role in the model. His presence is represented by a "black box" symbol, meaning he has decision-making powers. His responsibility is to supply the administrator with all the information required for application of the law. In this model, the applicant is assumed to be rational, and for this reason, he may decide to provide incorrect data to the decision-makers. This does not mean that all individuals would be expected to provide incorrect information whenever it was to their advantage. There probably exists a subset of individuals in the population who would not break the law for any cost. These citizens would be

expected to be law abiders in this situation also. But at the same time, there exists another subset of individuals who would take advantage of loopholes or ambiguities in the law, or possibly even break the law, if it appeared to their advantage. This subset of individuals will be assumed to be of a size large enough to be considered a significant influence in the administration of the Use-Value Assessment program. This subset represents the group of primary interest in the following discussion of game behavior. The subset who would not break the law at any cost may be incorporated into the model by assuming that they are so risk averse, that no level of benefits would exceed the costs imposed.

As mentioned earlier, when faced with two alternatives, the rational person will choose the option that best satisfies his wants or needs. It follows that more money is preferred to less, since money contributes to providing for these wants or needs. If an applicant has a choice between paying a one-hundred dollar tax bill versus a two-hundred dollar tax bill, it is fairly obvious which he would prefer, assuming his tax bill does not affect the level of services he receives. The concept of rationality implies that he would be better off paying only one-hundred dollars. But if the situation is changed such that the alternative providing the lower tax bill is illegal, and a fine might be imposed if he is caught, then the choice is no longer clear. The applicant who is a constant law abiding citizen may decide it is in his best interest to pay the higher tax bill. The other applicant who considers the fine as a risk rather than an absolute constraint may give the choice serious consideration. This

applicant may ask himself, "What are the chances of getting caught?" as well as, "How do the benefits of tax evasion compare to the costs of being caught?" If the applicant considers the expected returns from cheating to be higher than the costs of being caught, one may expect incorrect information to be provided to local decision-makers. If, on the other hand, he estimates the probability of being caught, and the corresponding penalties to exceed the possible benefits, he will submit the correct data. In this case, the validity of the information (V) is some function of benefits (B), costs or penalties (C), and the probability of being caught (p). $V = f(B, C, p, r)$. Also, the applicant's aversion to risk (r) may affect his willingness to try to cheat the system. The relationship necessary for determining the validity of the data may be of the following form:

$$B \gtrless (C \cdot p) + r.$$

If the benefits of cheating exceed the costs times the probability of being caught, plus a provision for risk taking, the applicant will submit invalid data. If the benefit is less than this product plus the risk variable, he will provide the correct data. If these two are equal, his action cannot be predicted.

The benefit variable (B) may be measured in tax dollars saved, discounted for a given point in time. The cost variable (C) may be measured in fines, discounted for that same point in time. The variable (p) represents the applicant's estimation of his chance of being caught. This variable depends on his valuation of the local officials (L) and his own deceptiveness (D). $p = f(L, D)$. This p-value may

even change over time. For example, if the landowner hears of others successfully providing incorrect information, then his evaluation of the probability of being discovered will likely decrease. On the other hand, if he hears of fines being administered for incorrect information, or if additional checking systems are implemented, his estimate of the probability of being discovered is likely to increase.

In addition, the risk variable (r) may be positive or negative depending on the applicant's attitudes toward risk.³ Additional consideration of the applicant's decision process contributes further to the conclusion that estimation of these variables range from difficult to impossible, and the reliability of the estimates are low. For this reason, the applicant's decision-making process is hidden within a "black box;" although the values of the influencing variables are beyond estimation, the influences are not. The major points to remember are that the applicant is responsible for providing the data about his own parcel; the applicant may gain from providing incorrect data; the influences encouraging the provision of incorrect data may be estimated; and the provision of incorrect data by the applicant is undesirable as it increases the probability that the law will be administered in a manner contrary to its intent.

The Administrator's Decisions and Influences

The box titled "Administrator's Decisions" is the bottleneck element of the model. All information converges on this point. The

³As was mentioned earlier, for the constant law abiding citizen, this risk variable would be assumed to be at least great enough to exceed benefits.

procedural input and the data input flow to the administrator, for his use in administering the Use-Value Assessment Law. The manner in which this information is treated by the local officials determines how the ordinance will be applied. From the standpoint of the administration of the law, the "Administrator's Decision" element is the most critical element in the model.

As mentioned earlier, the procedural information flow to the administrator instructs him on the mechanics of the application of the law. The manner in which each parcel is handled depends on how the individual data is manipulated within these procedures. If perfect information existed for both procedural input and input on the individual parcels, the official would have no real decisions to make. His job would be reduced to one in which the individual parcel data was categorized and then plugged into the system. All actions would be dictated by procedural information. If this were the case, the law would be administered according to its intent in all cases, assuming the theory behind the law was correct. But as pointed out already, procedural information is incomplete, forcing the administrator to make decisions, and also individual data is incomplete or possibly incorrect, to some extent increasing the number of decisions an administrator must make, while at the same time increasing the probability that the law will not be administered according to its intent (due to incorrect information). The result is that even if the administrator made what appeared to be "correct" decisions in every case using available data, the law might still be administered contrary to its intent. ("Correct" in this case implies that the law

is administered in a manner such that it meets its original objectives.) The reason for this is that the applicant may have supplied incorrect data. This, in effect, means that the official's performance is constrained by the validity of his information. Information that is not provided at all, as contrasted to incorrect information, simply forces the official to make more decisions, and due to this increase in decisions, increases the probability of "wrong" (applications contrary to the intent of the law) decisions. This shortage or gap in information is more of a relative constraint, rather than an absolute constraint as with incorrect information.

This suggests that with less information, the administrator has to improvise more. This improvisation, in the model, is labeled as a black box. Once again, the actual decision is unobservable, but the inputs, influences, and outputs may be observed. It may be useful to picture this decision process as a machine, the procedural information is the assembly manual, and the individual parcel inputs represent the raw material processed by the machine into a final product. The final product in this case, is the means of implementing the use-value assessment ordinance.

The machine is shipped unassembled to the local official from the manufacturer (county and state officials). With the box of parts (the statute or local ordinance) is included an owner's manual (procedural information), explaining how the machine is to be assembled. Although all the parts were shipped (the administrator has all the necessary authority to implement the ordinance), the owner's manual was put together missing certain pages. Therefore, the owner can

only partially assemble the machine. He finds that enough of the machine can be assembled to produce an output, but some of the parts are left over. Having not put together this type of machine before, he improvises to the best of his ability. Drawing from past experiences (and biases) to assemble the machine, he still has a few left-over parts. The resulting contraption does not work exactly as planned, but with the official performing some of the machine's functions by hand, an output is still produced. This is basically the case when procedural information is incomplete.

Besides having never assembled or run this type of machine before (assume the machine put spiked soles on golf shoes), he also lacks knowledge of the raw materials which he uses in the machine. The raw materials (the input data), however, came free with the machine as did an assistant (who is in this case the applicant). The applicant takes the soles, fits them against the shoe, passes them to the official running the machine, who then feeds them into the machine just the way he receives them. If the official is handed the shoe with the spikes down, he can feed these into the machine, sew a few stitches of leather himself, and still get a good shoe. But, if the official is handed a shoe with the spikes turned up, he feeds the shoe in this way, and the shoe is made with spikes on the inside. Similarly, if the applicant gives the official incorrect data on the application, this data is used in administering the law. The result may be similar to the shoe with the spikes on the inside.

The machine that the official assembles is built inside a black box. The inputs may be observed, but the workings may not. The

procedural information explains the assembly of the machine, but is incomplete. The input on the applications represents the raw materials, which may be fed into the machine wrong, or may be lacking altogether, (in which case shoes with no soles might be produced).

But what about the parts of the machine where no assembly instructions are provided? How does the official improvise, and what guides his improvisations? This might be the key to the workings within the black box. Obviously, the official does improvise to some extent. The means of improvisation are based on the administrator himself. These influences may be grouped into three sets: rationality incentives, survival incentives, and social pressures.⁴ These categories overlap to some degree, but the importance is not in the delineation, but in their effects.

All individuals involved in the model are assumed to be rational. In order to discuss rationality from the administrator's viewpoint, some basic guidelines are necessary in order to establish at least a range of preferences. Niskanen argues that the bureaucrat seeks to maximize his budget, since this favorably affects such variables as "salary, perquisites of the office, public reputation, power, patronage, and output of the bureau."⁵ In addition, the bureaucrat prefers to maintain "the ease of making changes and the ease of managing the bureau."⁶ This assertion was made concerning service

⁴William A. Niskanen, Jr., Bureaucracy and Representative Government, pp. 38-41.

⁵Ibid., p. 38.

⁶Ibid., p. 38.

agencies, and may differ in its applicability toward a regulatory agency. Also, the assumption that each administrator seeks to maximize his budget is stronger than is necessary for the model. Instead, the above variables will be assumed to be of interest to the administrator. It should be noted that some of these variables are contradictory, in that improving one may be detrimental to another. By increasing the power of his position, one could conceive of an administrator also decreasing the ease of managing his office. The primary usefulness of these variables will be in comparing alternatives between more or less of one variable, rather than alternatives comparing different levels of two variables. In this manner, varying preferences among administrators and different ranking of the variables may be ignored.

The second influence category, labeled survival strategies, is a special subset of rationality influences, but are specific enough to merit separate consideration. Survival strategies used in the model are simply those actions an official takes in order to maintain job security. Administrators often make decisions affecting different categories of individuals. For example, in a single day, an administrator could make decisions affecting farmers, elderly individuals and dog owners. If his performance were outstanding concerning the decisions affecting farm owners and the elderly, but below par as it affected the dog owners, his other successes would contribute little to appeasing this group. If the dog owners represented a powerful segment of his constituency, they might force his resignation, or simply fail to re-elect him. One might conclude, therefore,

that the administrator has a somewhat unique position in that his good judgments are often unrecognized, but a single mistake may cost him his job.⁷ Thus, the administrator may be expected to avoid high risk situations, or taking stands on controversial issues. This avoidance of controversy is one of the major survival influences used in this model. By avoiding bad publicity, the official may keep his job. This may involve side-stepping many important but controversial issues, as well as efforts to minimize problems and mistakes. Although such actions are not guaranteed of all administrators, these influences will be considered along with those previously mentioned.

In keeping with the administrator's desire to maintain job security, he may be expected to attempt to gain favor with his supervisor, (in the case of Real Estate Assessors), or with the constituents of the locality (as with the Commissioner of the Revenue). In this way, he not only makes his job more secure, but also increases his chances of promotion or improved status within the department (which were mentioned as desirable achievements from the viewpoint of rationality).

The third influence category affecting an administrator's decisions is social pressures. The constituents he serves want responsible service. If the public feels they are not being well served, efforts will be made to correct the situation (or find a new official). The effects of social pressure, however, go even further than this.

⁷Ray E. Brown, Judgment in Administration, p. 2.

Anticipating public opinion, officials may try to act as the public prefers.⁸ (Notice the relation to the avoidance of controversy.)

As is evident from this discussion, influences on administrators are numerous and in some cases offsetting. The rationality incentives suggest that the administrator prefers an increased salary or an increase in the ease of managing his position, but not to the extent of endangering his job. The different influences tend to serve as checks and balances, thus implying performance criteria for the administrator.

This has serious implications to the decision-making model. Since the influences are many and often contradictory to each other, and since the decision may not be observed within the black box, the outcome may be unpredictable. In the case of the shoe making machine, we cannot determine how the spare parts will be assembled to prepare the shoes. Being the central part of the model, this would seem to cripple any attempts to predict how administrators would act in given situations. The truth is, however, that such attempts are

⁸As was mentioned earlier, the officials administering this program at the local level may be either elected or appointed, depending on the locality. Should the official be an elected official, such as Commissioner of the Revenue, he may place much emphasis on public opinion when considering different options. The appointed official, such as the Real Estate Assessor, on the other hand may behave similarly but for a different reason. This official may choose the option preferred by the public, partially because he considers it his duty to act on their behalf, and partially because the Board of Supervisors who appointed him, express their concern over public opinion. Therefore, one may see similar decisions made by both elected and appointed officials, due to direct public pressure on the former and indirect public pressure on the latter.

only crippled when these incentives are contradictory. In certain cases where the inputs may be observed, and incentives are fairly clear and support rather than contradict each other, then predictions can be made with a reasonable degree of reliability. This is how the model will be applied.

Results and Implementation

Once a decision is made regarding application of the law, the official attempts to implement it, or whoever is in charge of the implementation makes this attempt. In the model, this decision information flow also has an "X" indicating that the decision could be either misunderstood, incomplete, or unable to be implemented in the manner suggested. Once the decision reaches this point, most of the decisions and influences are past. Points where errors may originate, are also past. The importance of this stage is that implementation of the law was our original purpose. To administer the law according to its intent was our goal. In this stage of the model, one may look to see if this goal was achieved.

Court Contests

Although the administrator has the decision-making powers, these powers are not without constraints, and his decisions are not above questioning. If the decision is not to the mutual satisfaction of the parties involved, one side or the other may take the decision to court. It is worth noting at this point, just what the two sides are. One side is represented by the applicant in his efforts to protect his own interests. The other side is best described as being the rest of

the local jurisdiction. This delineation of interested parties has a noticeable impact on the court contests, which are labeled in the model as another black box.

If a decision is made against the applicant, the impacts will create a sizeable conflict in his interests. He will predictably place a considerable amount of interest in overturning this decision. If, on the other hand, the decision is made to the detriment of the locality, more people will be affected, but this effect will be dispersed rather than concentrated. Although many people will be affected, this effect will not be to the extent it was observed on the individual. The per-constituent effect will likely be negligible. This implies then, that decisions contested in court will more likely be pressed by the applicant, rather than the individual in the jurisdiction, since the applicant would stand to gain more by its reversal.

Assuming that administrators dislike having to support their decisions in court, on the basis of their preference to avoid controversy, one may conclude that administrators will behave in a manner such that court decisions are avoided. Therefore, the court systems have an indirect influence on administrators, as shown in the model by the broken line from court decisions to social pressures. The contest of a decision in court is not necessary for the courts to have effect on the official. The fact that the option of contesting these decisions exists places a limited influence on the official. The actual hearing of a decision merely makes real to the official what were previously fears.

Feedback

The model, as pictured in Figure 1, shows no feedback mechanisms, other than the influence of court contests or social pressures. This does not mean that feedback does not occur in the model; on the contrary, to have pictured the feedback which occurs would have so complicated the diagram as to make it difficult to understand. Feedback exists between almost every pair of elements in the model, especially the elements representing decision elements (black boxes). Rather than inserting arrows to indicate the flow of feedback, it may be more clear to imagine feedback as a blanket which overlays this model, with flow occurring between the different points in the model. In reality, information not only flows back through the model, but also between decision-makers in different models (localities). Certain organizations exist primarily for the purpose of providing means of communication between administrators in different localities, as is the case with the Virginia Association of Counties. For our purposes, however, feedback will be confined to the elements within the model of a single locality.

An administrator encounters three phases of decision-making in his efforts to apply use-value taxation. In the first phase of the program, the phase of entry, the decision-maker must determine the qualifications to be met for enrollment in the program, and whether or not these qualifications are met. The second phase involves maintenance of the program. During this phase, the parcels having been accepted are assessed and revalidation is administered if required. In the third phase, decisions are made pertaining to land

no longer eligible for the program. In this exit phase, land no longer eligible will be charged a roll-back tax if necessary, and penalties may be charged. Since in each phase of application the decisions facing the administrator are different, and information needs and influencing factors vary, each of the phases will be discussed separately as it fits within this decision-making framework.

CHAPTER IV

METHODOLOGY AND ANALYSIS

This chapter will be divided into four sections. The first section will address the methodology of the research; this discussion will deal with the derivation and uses of the model as well as the sources of data. In the remainder of this chapter, the decision model will be applied to each of three decision phases officials encounter in administering the Use-Value Assessment Law. Section II discusses the model as it applies to the entry phase of the program, when landowners apply for use-value assessment. Section III explains the decisions administrators make in maintenance of the program. Maintenance includes making assessments and other routine duties created by the ordinance. Section IV explains the decision procedures as parcels exit from the program.

I. Methodology

The Model

The model was derived as a means of relating the different data collected in the survey. Due to the evidence of a wide range of decision alternatives available to local officials, as indicated by the survey, some theory of administrative behavior was needed for the explanation, and possibly prediction, of administrative decisions. The model was based on the behavioral theory adapted from William

Niskanen,¹ and to some extent Herbert Simon.² This model attempts to depict the flow of information to the administrator, and explains his decision based on this information and the factors influencing his behavior.

This model is essentially an explanatory model, in that it attempts to explain the decision process by identifying informational inputs and influencing factors, and to some extent narrowing the field of alternatives. Since an improvement in the understanding of the decision also provides a better understanding of the likelihood of different outcomes, the model in this sense, is also a predictive model. The predictions or tendencies implied by the model are not to be misunderstood to be hypotheses generated as a test of this model. This situation would prove to be circular in nature, since the derivation of the model was influenced by the same data which would be used to test these predicted tendencies. Instead, one may interpret the analysis of the data in later chapters to be supporting, rather than testing, the decision model. Testing must be confined to the future usefulness of the model in explaining the administrative decisions necessary for the application of use-value taxation.

One will notice in the analysis later in this chapter that certain occurrences do not seem to follow from the model. These variations will be of particular interest as they indicate the effects of

¹William A. Niskanen, Jr., Bureaucracy and Representative Government, 1971.

²Herbert A. Simon, Administrative Behavior, 1976.

individual weighting of influences by administrators within their black boxes, and explain the purpose of using the black box procedure. In an effort to make the model realistic, it was necessary to allow for differing views of the administrators. Influences having a major effect on one official, may have no effect at all on another.

The Survey Data

The data presented in this thesis was obtained during the fall of 1976, in an effort to determine the current status of the Use-Value Assessment Law. This data was obtained from a survey conducted with the cooperation of the officials in charge of administering the ordinance in twenty of the twenty-two localities having approved the ordinance for 1976.³ The titles of these officials in charge of administering this ordinance varied between localities; in each locality, the survey was conducted with the cooperation of the Treasurer, and either the Commissioner of the Revenue or the Real Estate Assessor, depending on who was responsible for the administration of Use-Value Assessment.

The questions on the survey were provided by various knowledgeable individuals working with the Use-Value Assessment ordinance;

³The total number of jurisdictions having passed local ordinances approving use-value taxation is twenty-two. The sample will consist of twenty, however, since Manassas City was until recently covered under the ordinance of Prince William County and would have identical data, and the City of Petersburg chose not to participate in the survey.

these questions sought information of interest both to researchers and those applying the law.⁴

The questions of the survey addressed three broad categories. First, questions were asked pertaining to the status of the program in that locality. Determined were such specifics as the date the ordinance became effective, the local tax rate and assessment ratio, the levels of participation in terms of the number of applicants and acreage of land, and the assessed value of property for that jurisdiction. Second, the survey addressed the topic of use-values. In short, this section sought the actual use-values applied by the locality, as well as information concerning revalidation procedures, the collection of roll-back taxes and penalties. Third, the survey included inquiries into the areas of administrative checks, costs of the program in terms of administration and revenue foregone, and the opinions of local officials on different parts of the program.

In addition to this information, the opinions of the person conducting the survey as well as documentation of abuses of the program were included at the back of the survey.

II. The Decision-Making Model as it Applies to a Parcel's Entry to the Program

The primary decision facing administrators in this phase is whether or not to accept individual parcels into the program. The informational inputs to this decision are procedural inputs from local and state governments, and data inputs from the applicant and to

⁴A copy of the survey form is provided in Appendix A.

a limited extent, public records. If the information provided by the applicant meets the requirements as understood by the decision-makers, then the parcel is accepted and this decision phase is completed.

Procedural Inputs in the Entry Phase

The administrator receives procedural information from two sources, the state government and the local government. First, to be discussed is the state government source and the types of information provided.

The major types of information provided by the state are standards for classification and the procedures of application, which includes a standard form to be used by the applicant. The standards for qualification vary with the use of the property. These standards are outlined in the Manual of the State Land Evaluation Advisory Committee and represent minimum standards for application. The local jurisdictions may impose further restrictions but may not lessen these. Also included in the standards are the use-categories of land which qualify for special assessment.

The standards prescribed by the state are typically broad and in want of further definition. The state provides for four classes of land use to be approved for special assessment: agriculture, horticulture, forestry, and open space. The agricultural and horticultural standards require a minimum five acre tract, and it must have been employed in an agricultural, horticultural, or other qualifying use for at least the last five years, and it must be presently enrolled in a planned program of soil management and soil conservation

practices. If field crops are the primary commercial product, average crop yield per acre for the last three years must equal or exceed one-half of the county average for those years; if field crops are produced for feed or on-farm consumption, then there shall be a minimum of one animal unit per five acres of open land at least three months of the previous year.⁵

These standards for agricultural or horticultural lands are a good example of a "break" in the information flow of the model. The standards are sufficiently vague, that if the local government makes no additional restrictions, then the administrator must decide where to set the guidelines for entry.⁶ For example, what constitutes being enrolled in a planned program of soil management and soil conservation practices? This is the type of judgment an administrator is required to make on each parcel that applies.

The standards for qualifying as forest land appear even less restrictive. The statute requires a twenty acre minimum parcel size,

⁵State Land Evaluation Advisory Committee, Manual of the State Land Evaluation Advisory Committee, p. 18.

⁶Carl F. Corwin, "Land-Use Differential Assessment of Real Estate in Warren County, Virginia," presented at the convention of the International Association of Assessing Officers, Atlanta, Georgia, November, 1976, p. 7. (The author of this article is a County Tax Assessor.) In the article, he discusses problems in administration and suggests that, "states that have not passed land-use differential legislation should go a step further and prescribe the type of proof and qualification and method of presenting evidence uniformly throughout the state. Those states that have already passed their enabling legislation should amend their code to include standards of proof of qualification that are uniform throughout the entire state."

at least a ten percent stocking of "industrial wood," and the area must be accessible.⁷ Forest lands may also qualify as non-productive, but this requires a site with such adverse conditions that the parcel is incapable of producing industrial wood. Here again, the administrator must determine if a site is stocked in excess of 10 percent and is accessible (or if the site is non-productive), or else take the applicant's word for whatever is on the application. No documentation or proof is required by the statute.

The standards for open space classification require a minimum tract of five acres, and the use must be in accordance with the local land-use plan. Certain examples of exemptions are listed; any example not listed must be judged according to the purpose for which the open space was designed. Again, judgment on the part of the administrator will probably be required.

Considering the influences affecting the administrator, it would appear that in such cases a lenient interpretation of the law might be expected for several reasons. First, one should remember that administration of the use-value assessment ordinance is not the official's sole duty. In fact, this was only recently added to the duties of his position. Assuming the official previously had a full

⁷Stocking is defined by SLEAC as being "the number of trees 3 inches and larger in diameter breast high (D.B.H. - at a point on the tree trunk outside bark 4½ feet from ground level) required to equal a total basal area (area in square feet of a cross section of the tree at D.B.H.) of 75 square feet per acre, or where such trees are not present, there shall be present tree seedlings, or tree seedlings and trees in any combination sufficient to meet the 10 percent stocking set forth in the following table. (See page 13 of the SLEAC Manual.

schedule, then in order to work with this program, other services had to have been dropped or delegated to other individuals. This suggests that the official is working under a time constraint. The variable mentioned earlier as one of his goals, the maintenance of the ease of managing the bureau, becomes increasingly important. To make interpretations and determine further restrictions on the guidelines of application would demand more of the administrator's time than would using the broad restrictions implied. Furthermore, strict guidelines for entry would decrease the number of landowners qualifying for the program. If guidelines were imposed that were not written into the local ordinance, disgruntled landowners might take the question of qualification to court. Due to the official's desire to avoid controversy, an appearance in court may not be to his liking, in that it could possibly reflect unfavorably on his performance. In addition, if the administrator takes the possibility of a court hearing into consideration, he would tend even more toward lenient guidelines. An applicant whose tax bill may be decreased by several hundred dollars or more, obviously has a sizeable interest in the decision of whether his land qualifies for special assessment, and may be willing to go to court over such a question. If lenient guidelines were imposed, the effect of the increase in the tax burden would be spread out over the locality such that the effect to each individual would be negligible or at least much less than the applicant's gains. Thus, the public would have little reason for court action. Also, the public with non-qualifying lands may not even take notice of the guidelines and how they are administered. Therefore, one may expect

interpretations of the guidelines for entry to the program to be lenient, and if this occurs, some marginal or unqualified parcels will be accepted into the program.

Leniency in Administration: Verification of this statement to any acceptable degree would require either a proof of lenient interpretation of the guidelines of qualification, or, an observation of the acceptance of marginal or unqualified parcels. Unfortunately, the data accumulated by this survey cannot substantiate this trend statement on either grounds. The available data address these points in roundabout ways, but as will be explained, are not reliable enough for acceptance or denial of this statement.

In Table 1, column A, is listed the responses of the local officials to question C.7 on the survey form. The question reads, "In administering the use-value program, is any consideration given to the presence or failure to control noxious weeds on the real estate?" This question is in reference to a requirement of qualified agricultural lands to "control brush, woody growth and noxious weeds on row crops, hay, and pasture" in order to meet the standards suggested for the conservation of land resources.⁸ From this question, one may argue that if this factor is not taken into consideration for the qualification of agricultural lands, then at least one portion of the ordinance is being administered in a lenient fashion. A quick glance at Table 1 indicates that these suspicions are supported by survey data. Only two of the officials questioned took consideration of the

⁸SLEAC Manual, p. 18.

Table 1. Leniency in Administering Use-Value Assessment as Measured by Consideration of Noxious Weeds and Number of Applications Turned Down in the Virginia Localities Approving Use-Value Taxation.

Jurisdiction	Consideration of the Control of Noxious Weeds ^a	Number of Applications Denied ^b
Albemarle County	no	c
Amelia County	yes	d
Chesapeake City	no	30
Chesterfield County	no	30
Clarke County	no	1
Culpeper County	no	275
Cumberland County	e	e
Fauquier County	no	0
Frederick County	no	0
Fredericksburg City	no	0 ^d
Hanover County	no	15 ^d

^aThe response of official's to the question, "In administering the use-value program, is any consideration given to the presence or failure to control noxious weeds on the real estate?"

^bIndicates the number of applications turned down in each locality.

^cNot available.

^dImplies the figure is a rough estimate.

^eNo one applied for the program in this locality.

Table 1.--Continued.

Jurisdiction	Consideration of the Control of Noxious Weeds ^a	Number of Applications Denied ^b
James City County	no	7
Loudoun County	yes	c
Petersburg City	c	c
Powhatan County	no	5
Prince George County	no	f
Prince William County	no	c
Roanoke County	no	c
Suffolk City	no	25
Virginia Beach City	no	c
Warren County	no	38

^aThe response of official's to the question, "In administering the use-value program, is any consideration given to the presence or failure to control noxious weeds on the real estate?"

^bIndicates the number of applications turned down in each locality.

^cNot available.

^fThe officials in this county indicated that those who were unqualified were told so before the application was processed.

Source: Survey conducted by the author.

regulation; the officials in Loudoun County remarked that after the third notice concerning the failure to control noxious weeds, the land was removed from the land-use program. The data in this table, however, would seem to indicate that the majority of localities give little consideration to the conservation aspect of the program.

Although this may be a reasonable conclusion from the data in Table 1, one may not assume that all parts of the program are applied with such leniency, for at least three reasons. First, one may argue that due to the lack of an absolute measure of the control of noxious weeds, (i.e., how many weeds denote a lack of control?) administrators may have decided to spend their energies interpreting more quantifiable sections of the ordinance. Second, the administrator may be basing his estimates of the degree of conservation on other practices, such as the control of runoff. Third, it appears the administrator would not give this aspect of the ordinance any consideration in a normal situation unless he were making a check of the property. The reason for this is that the applicant certifies by signed Affidavit on the application that these conservation practices are in effect; the administrator would not give any consideration to the failure to control noxious weeds, therefore, unless he were checking the information supplied by the applicant. If the applicant's word is taken, no check is necessary. This data, therefore, may suggest that the system of checks are not in effect rather than supporting the assumption of lenient interpretation of qualification guidelines.

Column B in Table 1 lists the answers to question B.6 in the survey. This question asked for the number of applications filed and

the number of applications accepted. The difference of these two numbers would represent the number of applications turned down. From this, one might argue that if few applications were turned down, marginal parcels must have been accepted, since these owners would surely have applied. If this were true, one may gain support for this argument from the data, since most of the officials turned down few applications.

But this argument also may be explained away in at least three different ways. First, one may argue that many were notified as being non-qualified at the time of picking up applications, or by other local officials such as the county agent, and were therefore not counted. (This was indicated as being the case in several counties.) Second, one may argue that if in fact the administrator applied the ordinance rigorously, that his feedback would reach the marginal applicant, and he therefore would never have bothered to apply. Third, one could also point out cases where the applications that did not qualify were not kept and therefore many of these figures represent rough estimates. In any case, although this data does suggest that few applicants were turned down, this is not strong enough evidence to verify this trend.

In conclusion, it appears that the data necessary to support or deny this trend is unavailable; although these two sources of data do support this trend to a degree, the reliability of the data and the necessary deductions in this line of reasoning are questionable. In order to verify this trend, more data would be required. Such data

might be acquired from the observation of individual parcels in a case study of one of these jurisdictions.

The state also provides procedural information describing the application process for the applicant and a standardized form. The information on how to enter the program is on the back of this application form.

The local jurisdiction provides procedural input to the administrator in the local ordinance. Basically, this ordinance restates many of the provisions made by the state, plus it exercises certain options the state left for the locality to exercise. First, the state allows each jurisdiction to accept any or all of the four land classifications for special assessment. This decision will be clearly stated in the local ordinance. Second, the local jurisdiction may adopt special classifications of land-use, within state guidelines. Restrictions in addition to those made on the state level, may be made on the local level. Generally, few restrictions are added to those suggested by the state. Third, the local jurisdiction may charge a filing fee if it desires to do so. This will also be clearly stated in the ordinance.

This state and local input represents the total procedural information available to the administrator. Besides the obvious judgments mentioned in relation to the standards, many more must be made by administrators in routine application procedure. Many unexpected cases demand interpretation of the law and requirements. Obviously, procedural input to the administrator lacks specifics.⁹

⁹Ibid., p. 8.

Data Inputs in the Entry Phase

The administrator has two sources of input on the parcels: public records and the applicant. In making application for special assessment, the landowner provides all the information requested. The input from public records is for the applicant's use in application, and in some cases is not available. The only real input from public records is soil surveys, which the applicant uses to fill out the soil capability class for determining use-values. If these soil surveys are not available, then either the applicant or administrator must decide on the productive capability of the land. Once again, regardless of which person decides on the land's productive capability, the decision alone increases the odds against the law being administered according to its original intent.

As mentioned in Chapter III, the applicant can reap sizeable gains by having his land assessed at use-value rather than fair market value, and further gains by having his land assessed below its true productive capacity. For that subset of landowners who (as mentioned in Chapter III) would have no qualms about "manipulating" their applications, or trying to manipulate their local officials, many will probably consider it at this stage of the process. This means that the administrator may receive incorrect information if the landowners in this subset assess the benefits as exceeding the costs and risks involved. Due to the gains obtained by receiving use-value taxation, and the probability of unqualified parcels being admitted into the program, one might expect to find that the number of landowners and the acreage of land enrolled in the program will be substantial.

The argument supporting this projection deals primarily with the influences affecting the applicant, but partially with the leniency of the qualifications as administered by the local official. Supposedly, if the landowner acted rationally, then any qualifying landowner (and some who did not qualify) would apply for the program, if they could decrease their tax bills by doing so. Furthermore, it was suggested earlier that the administrator might avoid strict interpretation of the standards. The result of these two suggestions is that a sizeable portion of the locality would be assessed at its use-value. Although one cannot conclude that the qualifications are applied leniently, the data do suggest that numerous landowners are applying for the program, and that a sizeable portion of the locality is enrolled in the program.

Enrollment in the Use-Value Taxation Program: In Table 2, data from question B.6 are tallied for the jurisdictions having passed use-value assessment ordinances. Column A lists the number of parcels qualifying for the program in each locality, column B expresses these figures as a percentage of the total parcels in that jurisdiction, and column C lists the percentage of land in acres, enrolled in the use-value assessment program for that jurisdiction.

As seen in column A, seven of the nineteen jurisdictions for which this information is available, have over 1,000 parcels enrolled in the program, with the largest number of parcels enrolled in Albemarle County (2,307). For four of these localities, this enrollment represents over 10 percent of the parcels in that locality, as shown in column B. The data of most interest, are those in column C,

Table 2. Enrollment in the Virginia Use-Value Assessment Program, 1976.

Jurisdiction	Number of Parcels	Percentage Enrollment Measured in Number of Parcels	Percentage Enrollment Measured in Acreage
Albemarle County	2,307	12.2	d
Amelia County	810	16.6	d
Chesapeake City	1,139	2.9	37.0
Chesterfield County	644	1.4	.03
Clarke County	328	4.9	38.0
Culpeper County	500	4.0	d
Cumberland County	0	0	0
Fauquier County	1,933	12.1	47.1
Frederick County	1,252	4.8 ^e	53.9
Fredericksburg City	3	.06	3.8
Hanover County	1,238 ^e	5.5 ^e	d
James City County	229	d	5.5
Loudoun County	d	d	d
Petersburg City	d	d	d
Powhatan County	670	10.6	46.7
Prince George County	607	8.7	33.3
Prince William County	794	.35	d
Roanoke County	84	.3	d
Suffolk City	1,575	7.2	81.7
Virginia Beach City	1,350 ^e	2.0 ^e	40.6
Warren County	170	.7	15.7

^aNumber of parcels accepted in each jurisdiction.

^bPercentage of parcels enrolled in the program in each jurisdiction, number of parcels accepted, divided by the number of parcels in the jurisdiction.

^cPercentage of land enrolled in the program for each jurisdiction, the number of acres in the program, divided by the number of acres in the jurisdiction.

^dNot available.

^eIndicates that this entry is a rough estimate.

Source: Survey conducted by the author.

which indicate that of the thirteen jurisdictions for which data are available, eight of these jurisdictions have at least one-third of their total land being assessed at use-value.¹⁰ The locality with the largest portion of its land being assessed at use-value was Suffolk City, where 81.7 percent of the city receives special assessment.

From these data, one may conclude that the quantity of land enrolled in the program is sizeable, especially considering that ten of these localities have been administering use-value assessment for only one year at the time of the survey. Therefore, one would expect that the program would likely have considerable impact on the locality.

Administration Procedures When Information is Lacking: In the case that the landowner does not provide the land classifications, the administrator may be expected to either use some average classification or turn the responsibility over to another member of his staff. This would be expected due to the time constraint under which the administrator operates. Such a task as deciding the land classification for all parcels may require more time than he has available. Furthermore, he may feel that others are better qualified for this task and that his time could be better spent elsewhere. Therefore, if the public records do not provide soil capability classifications for the jurisdictions, one of several possibilities might occur. First, if the applicant must provide the capability classifications, the

¹⁰ Due to different record keeping procedures in these localities, some of the data was unavailable, or would have taken much time to obtain. The exception to this is Petersburg, who did not participate in the survey.

tendency would be toward underassessment. If the administrator is responsible for making the assessment of productive capability, he might either use a general formula which would underassess some of the expense of others, or turn the responsibility over to another official.

The remainder of the application is filled with information provided by the applicant. Although some numerical data is required, much of the information is provided through yes or no answers to questions, with no requirement of proof. Such an application would seem to encourage the applicant to change data in his favor when possible, since such a lax requirement would decrease the applicant's estimate of his chances of being caught. A penalty for misstatement does exist, but varies from one locality to the next. Presumably, the penalty for that locality would be taken into account by the applicant should he consider the use of misstatements in his application.

This is the situation as the administrator sees it. The procedural information is general, and requires either interpretation or lax enforcement. The data input is possibly incomplete, thus requiring his judgment, or incorrect, thus requiring some detective-type work or his acceptance as is. Such options provide much leeway in his decision-making.

Within the decision-making framework provided, by relying on the administrator's influences of rationality, survival, and to some extent social pressures, tendencies in choosing among the above alternatives may be noted. The administrator's first decision is how

to treat the gap in procedural information. Consider his option of interpretation. If the administrator were to further define the ordinance, this would require much of his time, a commodity he considers in short supply. If interpretation of the ordinance was attempted, it would result in standards stricter than would be applied otherwise. The outside boundaries of the law are reasonably clear, as far as size and certain standards of use are concerned.¹¹ The interpretation would likely define other requirements, such as what constitutes a conservation plan. The result would be that standards for a conservation plan would have to be met where previously these standards were assumed to be met already. The restrictions imposed would likely meet firm opposition from certain landowners, presumably those with marginal parcels. This pressure coupled with the efforts required might sufficiently discourage the official from imposing the additional guidelines.

Bridging information gaps with simple estimates or guesswork rather than spending large sums of money and time for accurate data may be expected for two reasons. As was mentioned earlier, the officials administering the use-value assessment program were assumed to have other duties which previously occupied their time. In order to maintain the performance of these other duties while administering this program, shortcuts had to be taken, or duties must have been

¹¹The outside boundaries referred to are the explicit requirements which the state demands to be met in order for the applicant to qualify. These boundaries include such specifics as the size of the tract, the minimum number of animals required per acre if these animals are the farm product, or the minimal level of stocking required of forest lands.

delegated to other individuals. Due also to the emphasis of efficiency in government, one would expect these shortcuts to be used.¹² Secondly, the cost of performing these duties in detail, or obtaining accurate data to replace these estimates may be costly, and these costs may likely be judged to exceed the benefits of improved accuracy. These two arguments led to the conclusion that methods of estimation may replace the use of data in several circumstances.

Complete data necessary to support this conclusion would be difficult to obtain, since it would require detailed information of the internal workings of the administrative staff. It is possible, however, to cite a few instances where this occurs, by observing how different localities respond to an information shortage.

Table 3 lists the localities which have only partial soil maps (or none at all) available for the administrator's use in making use-value assessment based on the productive capabilities of the land. Nine of the twenty localities surveyed were lacking this soils information. The column to the right explains how these localities dealt with this information shortage.

Of the nine jurisdictions having insufficient soils data, three used some means of averaging to assess the land.¹³ Either a weighted productivity was placed on the land, or all land was placed in a

¹²Herbert A. Simon, Administrative Behavior, (New York: The Free Press, 1976), p. 122.

¹³Albemarle County, Powhatan County, and Suffolk City.

Table 3. Procedures Substituted in Virginia Localities Lacking Soil Surveys.

Locality	Means of Applying Use-Value Assessment Without These Surveys
Albemarle County	Weighted averages, three classes of land
Amelia County	ASCS map, landowners statements
Frederick County	Used a general geology map, formed a special committee
James City County	Landowner's statements
Powhatan County	Where soils data was unavailable, used Class III as an average
Prince George County	Had partial soils data; for those without, consulted ASCS and considered adjoining tracts
Roanoke County	Had partial soils data; used aerial photos and consulted county extension agent and ASCS
Suffolk City	Used no classification scheme, instead assessed 80% of each parcel as Class II, 20% as Class III
Warren County	Had partial soils data; remainder of land was estimated for its productive capacity

Source: Survey conducted by the author.

single category. This practice would be simple for the administrators to apply in making use-value assessments.

Two of these nine localities¹⁴ relied to some extent on the landowners estimates of the productive capacity of his land. Although this method would be simple for the administrators, it would seem to increase the landowners part in determining his own assessment. As mentioned earlier, some of the landowners may be expected to strive for lower assessments in order to save tax dollars.

Three of the remaining localities in Table 3¹⁵ relied on individuals other than the landowners to determine the classifications to be used. In this way, the administrator delegated this responsibility to other officials.

In Warren County, each parcel for which soils data was unavailable was estimated for its productive capability. The method of estimation is unknown. If visits were made to these parcels, this method could have been time consuming.

Although this evidence seems insufficient to make the generalization that all localities rely on such estimates in administering this program, it does suggest that one of two routes are taken when data is unavailable. Either a simple method of estimating this information is used, such as using an average value of soil productivity, or the responsibility is delegated to other individuals, (in this case either other county officials or the landowner). Both methods

¹⁴Amelia County and James City County.

¹⁵Frederick County, Prince George County, and Roanoke County.

save the administrator in charge from having to make the decisions himself and thus saves him time. This suggests that the time constraint mentioned in the model does come into effect in the administration of the program.

Having completed these decisions, the administrator must either accept or reject the parcel. If the official's decision is not questioned in court, this marks the completion of this phase of the program.

III. The Decision-Making Model as it Applies to Maintenance of the Program

Once a parcel enters the program, the local official must make assessments of its use-value. This occurs in the maintenance phase of the program. Besides the assessment decisions, the administrator may also be required to make routine checks or possibly revalidate the parcel's qualification. All these decisions occur in the maintenance phase of the program.

Procedural Inputs in the Maintenance Phase

Before the parcel entered the use-value assessment program, the local assessors only had to determine one assessment value for the parcel, its fair market value. But with the parcel's entry to the program, the assessor now must also determine a use-value, and both values must be recorded in the Land Book.

The state offers no mandatory procedures for the determination of use-values. Instead, the state created a committee, the State Land Evaluation Advisory Committee (SLEAC), whose purpose is to determine

use-values for land classes in these localities. The use of this procedural information from the state is optional; if these values are used, the officials need only to determine land capability classifications in order to determine use-value assessments. The local ordinance usually offers little procedural information to the administrators. The possible gaps in procedural information are twofold in this decision phase; first the local officials may decide not to use SLEAC values and thus could choose values which would be averse to meeting the goals of the law, and second, the officials may not have land capability classifications so that application of SLEAC values is not possible, or if application of these values is possible, this application may not be uniform.

Data Inputs in the Maintenance Phase

The applicant has only limited input in this phase of the program. Information from his application, such as land capability classification, may be used in this phase. His desire for decreased taxes, however, may prompt him to pressure officials for lower assessments and use-values. As mentioned earlier, there is no way to determine to what extent these pressures will be exercised. But if lower assessments were possible, the applicant realizes he would profit from them.

The Determination of Use-Values: The local official, given these flows of information, must decide either to accept SLEAC values, or to determine a procedure for determining his own values. Consider first, the consequences of applying SLEAC values. Use of

these values would not only require less of his time, compared to determining his own values, but would also relieve the administrator from the responsibility of setting these values. Should these values be questioned in court, the administrator would not be directly responsible. Should landowners strive for lower values, he could argue that the setting of these values was beyond his control. Also, he might argue that these were the values recommended for the jurisdiction by a state committee specializing in the determination of such values, and as such, would be more reliable (more likely to follow the intent of the law).

Suppose, on the other hand, that SLEAC values were not used, and that the administrator determined the value himself. In order to protect the tax base, he may consider higher values. If these were implemented, the tax base would be decreased less, but the effect of the program would also be decreased. Furthermore, the qualifying landowners would opt for lower use-values. Values higher than SLEAC values might be difficult to justify, and could lead to a court decision. Since the qualifying landowners could save a significant portion of their tax bills by reducing these values, it is probable they would press for values at least as low as SLEAC, or even lower. It would seem that the administrator would have little incentive and considerable difficulty implementing higher values. Should lower values than SLEAC be implemented, the qualifying landowners would be appeased, but the tax base may be reduced considerably. If this occurred, either tax rates would have to be

raised, or services reduced. An increase in the tax rate or a decrease in services may arouse the general public, if this change were large enough to be noticeable. If the qualifying sector were small enough, the tax burden may be redistributed among non-qualifying landowners such that the impact would be negligible. Since the burden was spread out over a larger portion, the increased cost to the individual non-qualifying owner may be insignificant compared to the gains to the individual qualifying owner. It would seem then that the use of SLEAC values is a comfortable compromise and could be well justified. If, however, SLEAC values are not used, one may expect the resulting values to be lower for the reasons mentioned above. The resulting values depend on the weighting of the various influences within the "black box" of the administrator.

The survey data indicate that most localities use SLEAC values. Table 4 shows that of 19 localities for which information was available, 11 used SLEAC values.¹⁶ Although one might have expected more of these localities to use SLEAC values, a closer look at the localities not using these values could explain why this is not the case.

Of the eight jurisdictions not using SLEAC values, four do not have soil surveys completed, and are thus faced with the decision of

¹⁶ Three of the localities are not listed in either column. Manassas City was not included in the survey; Cumberland County had no one apply for the program; and Petersburg City did not participate in the survey. Furthermore, a locality was counted as using SLEAC values, only if the values were used exactly as suggested for all classes.

Table 4. The Virginia Localities Using/Not Using SLEAC Suggested Values.

Use SLEAC Suggested Values	Do Not Use SLEAC Suggested Values
Amelia County	Albemarle County
Chesapeake City	Chesterfield County
Culpeper County	Clarke County
Fauquier County	Hanover County
Frederick County	Powhatan County
Fredericksburg City	Prince George County
James City County	Suffolk City
Loudoun County	Virginia Beach City
Prince William County	
Roanoke County	
Warren County	

Source: Survey conducted by the author.

whether to estimate average use-values, or soil productivities.¹⁷

Three of these localities applied average use-values; the fourth (Prince George County) applied different use values for each of the seven soil productivity classes.¹⁸

As was previously mentioned, those localities not using SLEAC values were expected to use lower assessment values. This was observed to some extent. For the three localities using average values, no direct comparison to SLEAC values is possible. Of the five remaining localities, three applied SLEAC values except for only a couple values which were slightly higher. Prince George County applied SLEAC values except for forest land assessments, which were higher than SLEAC.¹⁹ Chesterfield County officials applied SLEAC values for agriculture, but applied higher use-values for horticultural and forest lands. Clarke County applied slightly higher use-values for agricultural lands in classes IV through VIII.

Both Hanover County and Virginia Beach City, on the other hand, applied use-values considerably lower than suggested by SLEAC. As shown by the comparison in Table 5 between SLEAC suggested values and the values actually applied, the use-values applied may be as much as

¹⁷ Albemarle County, Powhatan County, Prince George County, and Suffolk City.

¹⁸ Albemarle County, Powhatan County, and Suffolk City.

¹⁹ Officials from several localities expressed their concerns that forest values were unrealistically low. Since the survey was completed, suggested SLEAC forest values have been increased.

Table 5. Comparison of SLEAC Suggested Use-Values with the Actual Values Implemented in Hanover County and Virginia Beach City.

Jurisdiction	I	II	III	IV	V	VI	VII	VIII
	----- classes -----							
SLEAC								
Hanover Co.	530	470	350	260	180	120	50	40
Actual								
Hanover Co.	200	180	130	100	70	40	40	40
Net reduction	330	290	220	160	110	80	10	0
SLEAC								
Va. Beach	790	710	530	400	260	190	80	50
Actual								
Va. Beach	540	540	450	-	-	-	30	20
Net reduction	250	170	80	-	-	-	50	30

Source: SLEAC recommended values were obtained from the Manual of the State Land Advisory Committee, the actual values listed were obtained from a survey conducted by the author.

330 dollars lower in Hanover County (for Class I Agricultural Land) or 250 dollars lower in Virginia Beach City (for Class I Agricultural Land). This represents a sizeable tax savings to the farmers in these localities, reducing assessments by 62 percent and 32 percent, respectively, from the levels recommended by SLEAC.

One may conclude from this, that even though some localities administered higher values, these increases were restricted to particular categories or of soil productivity or to particular classes of land-use. The decreases in use-values were observed in these two localities throughout all classes of use and represented major reductions in assessments when compared to the increases observed in the other localities. In this respect, the decision model is partially correct in predicting the application of lower use-values where SLEAC values are not administered.

Determination of Use-Values of Quota: In certain localities, SLEAC suggests that use-values of quota be administered in addition to the use-value taxes. For example, if County A was an exceptionally good county for peanuts, then the farming of peanuts may be the highest valued use of the land. In that case, a use-value of quota tax for each acre of peanuts may be recommended for that jurisdiction. SLEAC makes such recommendations for both peanuts and tobacco. In the decision model used here, the implementation of the SLEAC use-values of quota is less predictable than the implementation of SLEAC use-values. To some extent, the implementation of these use-values of quota depends on whether the administrator views these quota values as SLEAC use-values, or as taxes in addition to SLEAC values. If

these are viewed as SLEAC values, they would likely be implemented where SLEAC values are used. If viewed as additional taxes, the influences to provide lower assessments might suggest these would be omitted or lowered. Although whether or not these values will be implemented is unpredictable, one should realize the changes of these values being ignored or lowered, is better than the chances of lowering SLEAC values, since the use-values of quota may appear as added taxes. One may be led to suspect the following: the use-values of quota will probably be highly correlated to the use values applied. If SLEAC use-values are applied, application of SLEAC use-values of quota should be expected; if use-values lower than those recommended by SLEAC are used, one may expect use-values of quota lower than recommended. One should not be surprised, however, to discover a case where the use-values of quota are lower than recommended, even though the use-values are not. Such an occurrence would merely indicate that the use-value of quota was viewed as a separate and additional tax, and for some reason, (possibly political), a lower use-value of quota was applied.

As is shown in Table 6, SLEAC recommends use-values of quota for only five jurisdictions. Of the four localities for which data are available, two apply use-values of quota as recommended, one applies higher use-values of quota, and one applies lower use-values of quota. The application of a higher use-value of quota, although unusual is not contradictory, since it accompanies the application of use-values higher than recommended by SLEAC.

Table 6. Comparison of SLEAC Suggested Use-Values of Applied Use-Value of Quota in Five Virginia Localities.

Jurisdiction	SLEAC Recommended Use Value of Quota		Applied Use-Value of Quota		Difference	
	Tobacco	Peanuts	Tobacco	Peanuts	Tobacco	Peanuts
Amelia County	230		230		0	
Chesterfield County	1,500		1,500		0	
Petersburg City		130		a		
Prince George County		130	680	130	+680	0
Suffolk City		230		0		-230

^aPetersburg did not participate in this study, therefore, data is not available.

Source: SLEAC recommended use-values of quota were obtained from the "Manual of the State Land Evaluation Advisory Committee;" the applied use-values of quota were obtained from a survey conducted by the author.

Obviously the data base relative to this trend is small, but one may make several observations from the survey data. No use-values of quota were recommended or applied in the two localities applying use-values below those suggested by SLEAC, so no statement may be made on this part of the expected trend. Where SLEAC values were applied, the use-values of quota were also applied. The one case where use-values of quota were recommended by SLEAC, but not applied, was in the case of a locality not using SLEAC values, (though observation does not determine how the applied values compare to SLEAC values). The application of a use-value of quota above the suggested value was in a locality that also applied other use-values above the recommended levels. Therefore, from this small data base, one may conclude that as the model indicates, the relation of the application of the use-values of quota to the SLEAC use-values of quota will be the same as the relation of the use-values to the SLEAC use-values, except for the occasional implementation of a lower use-value of quota when the recommended SLEAC use-values are applied.

Revalidation and Other Systems of Checks: In many jurisdictions revalidation is required at regular intervals. Where revalidation is required, the procedure to be used is left up to the local official.

The qualifying landowner's input in this case may range from a simple yes or no answer to the question, "Has the use of your land changed?," to a complete re-application. In either case, the landowner is still subject to the influences mentioned in the section on entry. Due to the likeness of re-application to the original

application, the same influences and conclusions also hold for the administrator.

Checks in addition to revalidation may also be administered.²⁰ The objectives of these checks and the procedures employed will differ from jurisdiction to jurisdiction. Some may be instigated to lend credibility to the program and discourage manipulation of data by applicants, while others may attempt to identify parcels that have changed use, and thus are no longer qualified. Identification of these parcels would increase the tax base and return tax dollars previously deferred. In most cases, however, whether or not any checks are made is left up to the administrator. As mentioned earlier, some checks require both time and money, and would not be expected for this reason.

Table 7 indicates the level of visitation to the qualifying parcels, the jurisdictions requiring revalidation, as well as the types of checks employed by various localities. The table suggests that the above expectation appears incorrect, since all but four of the localities do have some systems of checks, the most popular being the use of aerial photos. Consideration of additional survey data, however, suggests that this statement of expectations is in fact valid.

²⁰It is interesting to note that if revalidation is required by a locality, this requirement is the result of local legislative action rather than the decision of the administrator. This is not to imply that revalidation is not to the administrator's liking. The local administrator may indeed press for revalidation in the local ordinance, as this means of checking would simplify maintenance of the program, by identifying those parcels that no longer qualify.

Table 7. Types of Checks Employed in Virginia Localities Administering Use-Value Assessment.

Jurisdiction	Level of Visitation	Require Revalidation	Employ No Checks Other Than Visitation Revalidation	Types of Checks Employed
Albemarle County	100			Aerial photos, geodetic maps, Platte Book, 5-year previous record of agriculture
Amelia County	0	x	x	
Chesapeake City	100	x		Aerial photos
Chesterfield County	100			Aerial photos with a dot-grid count and planimeter
Clarke County	0			Farm schedule
Culpeper County	15			Aerial photos
Cumberland County ^a				
Fauquier County	10	x		Farm income statements, 5-year history of the farm
Frederick County	10	x		Questionnaire
Fredericksburg City	100	x	x	(Only have 3 parcels in the program, visit these)

^aNo applicants.

Table 7.--Continued.

Jurisdiction	Level of Visitation	Require Revalidation	Employ No Checks Other Than Visitation Revalidation	Types of Checks Employed
Hanover County	100			Soil maps
James City County	0	x		Field check
Loudoun County ^b	100	x		Farm income statements for 1971, 1975
Petersburg City				
Powhatan County	0	x		Reassessment cards
Prince George County	0	x	x	
Prince William County	100			Aerial photos
Roanoke County	25	x		Aerial photos, past properly records
Suffolk City	10	x		Deed transactions
Virginia Beach City	100	x	x	
Warren County	2	x		Farm schedules, Forest programs

^bDid not participate in the survey.

Source: Survey conducted by the author.

The Collection of Penalties: Table 8 lists the dollar amounts of penalties collected for misstatement of application and lack of notification in changing land-use. The table points out that no penalties have been collected for misstatement in application and only two localities have collected penalties for lack of notification in changing land-use. These data have several implications. It is possible that the checking systems employed are not capable of discovering misstatements in application or parcels for which the use is changed without notification. On the other hand, it may be that these systems are not employed to an extent such that these situations are discovered. These data could also be explained by a reluctance of administrators to impose penalties on individuals (possibly in an effort to minimize ill will with constituents, thus increasing job security). Any combination of these possibilities may be argued.²¹ But above all, these data suggest that "effective checking systems" are rare (effective meaning that violators are caught), and that the collection of penalties due to misstatement in application or improper notification of a change in land-use is unusual.

The limited collection of penalties due to improper notification of a change in land-use is especially interesting. This lack of notification may be the result of a landowner trying to avoid the roll-back taxes involved. In such a case, he may have deliberately

²¹Although there is the possibility that no violations have occurred, it will be assumed that this is not the case here.

Table 8. Penalties Collected in the Virginia Localities Administering Use-Value Assessment.

Locality	Penalties Due to Misstatement of Application	Penalties Due to a Change in Land-Use Without Notification
Albemarle County	0	119.85
Amelia County	0	0
Chesapeake City	0	0
Chesterfield County	0	0
Clarke County	0	0
Culpeper County	0	0
Cumberland County ^a		
Fauquier County	0	0
Frederick County	0	0
Fredericksburg City	0	0
Hanover County	0	0
James City County	0	0
Loudoun County	0	0
Petersburg City ^b		
Powhatan County	0	0
Prince George County	0	c
Prince William County	0	c
Roanoke County	0	0
Suffolk City	0	0
Virginia Beach City	d	d
Warren County	0	0

^aNo applicants.

^bDid not participate in the survey.

^cThe dollar value was unavailable; it was estimated by county officials that about one-fourth of all changes in qualifying parcels to a non-qualifying use were unreported and thus were charged the resulting penalties.

^dData not available.

Source: Survey conducted by the author.

neglected to report the change. On the other hand, the owner may simply have forgotten to report the change, or may not have known such notification was required. This latter case may have occurred where the land ownership changed hands and the new owner did not have sufficient knowledge of the program to realize notification was required with a change in land-use.

In any case, improper notification of a change in land-use is known to occur. At least six of the localities surveyed mentioned a problem existed in determining where a change in use had occurred and who was responsible for paying the roll-back tax. Two other localities removed the responsibility of notification from the landowner by notifying him when a roll-back tax was due.²² Of the localities for which information is available, at least eight have collected no roll-back taxes. This is not surprising considering that most of these localities have been in the program for only one year. What is of interest, is that of all the localities having reported problems in determining when change in land-use had occurred, and in having the landowners make notification of these changes, only two localities have imposed any penalties. This would seem to indicate that local officials are reluctant to impose penalties for improper notification. One administrator explained that in his jurisdiction, no landowner had ever made notification of a change in use, that the local government always had to notify the landowners when such changes occurred. One

²²Chesterfield and Loudoun Counties notify new owners when a land transaction takes place.

would think that such a situation would lead to the collection of penalties in at least a portion of these instances, yet no penalties were ever charged.

The reasons for the lack of penalties imposed remain unclear. Evidently, improper notifications of change in land-use are occurring and some of these are being discovered. Yet it still remains that very few penalties are being collected, whatever the reasons.

The Impacts of Use-Value Taxation on the Local Tax Base: It was mentioned in the discussion of the model in Chapter III that landowners are assumed to be rational. This implies that if the landowner can reduce his tax bill and thus save money by receiving special assessment, and he thinks his land will qualify, then he will apply for acceptance to the land-use program. Furthermore, it was explained earlier in this chapter that the standards for qualification appear broad; if no interpretations of these standards are made such that the requirements become more strict, then these qualifications may be easily met and additional landowners will qualify. Due to the high probability of a large number of applicants, and the lower assessments resulting from applying use-values, one would expect the local tax base and tax revenues to decrease substantially.

Table 9 indicates that the reduction in the tax base and revenues collected are indeed substantial. The percentage changes in the tax bases of these localities range from .39 percent in Fredericksburg City (where only 3 parcels were enrolled in the program) to 20.63 percent in Suffolk City. This large decrease in the tax base in Suffolk City results primarily from the acceptance of 81.7 percent of

Table 9. The Impacts of the Tax Bases of the Virginia Localities Administering Use-Value Assessment.

Jurisdiction	Tax Base at Fair Market Value	Estimated Tax Base With Use Value Assessment	Dollar Amount of Change in Tax Base	Percentage Change in Tax Base	Taxes Deffered in 1976
Albemarle County	125,293,690	112,052,857	13,240,833	10.57	635,560
Amelia County	13,750,760	12,076,819	1,673,941	12.17	56,914
Chesapeake City	459,732,533	435,917,627	23,814,906	5.18	766,840
Chesterfield County	498,535,088 ^a	491,639,338	6,895,750	1.39	220,664
Clarke County	37,997,937 ^a	36,664,604	1,333,333	3.51	32,000
Culpeper County	55,189,340	51,850,620	3,338,720	6.05	143,565
Cumberland County	-	-	-	-	-
Fauquier County	82,081,170 ^a	75,074,694	7,006,476	8.54	294,272 ^a
Frederick County	94,747,454 ^a				
Fredericksburg City	71,286,425 ^a	71,006,269	280,156	.39	8,965
Hanover County	154,910,868	146,313,984	8,596,884	5.55	223,519
James City County	82,771,674 ^a	81,595,970	1,175,704	1.42	35,859
Loudoun County					
Petersburg City ^b					
Powhatan County	44,203,320	38,320,968	5,882,352	13.31	150,000
Prince George County	55,380,949	48,631,981	4,748,968	8.90	113,975
Prince William County	687,000,000	662,678,276	24,321,724	3.54	1,057,995
Roanoke County					
Suffolk City	121,182,714 ^a	96,182,714	25,000,000	20.63	650,000
Virginia Beach City	1,698,032,797	1,619,455,918	78,576,879	4.63	1,107,934
Warren County	23,069,600	22,269,767	799,833	3.47	23,995

^aImplies 1975 data were used.

^bDid not participate in the study.

Source: Survey conducted by the author.

that locality into the Use-Value Assessment program. The average reduction in tax base for these localities is about 6.83 percent.

The quantities of deferred taxes in these localities are also substantial, as they range from 8,965 dollars for Fredericksburg City to 1,107,934 dollars for Virginia Beach. These quantities of deferred taxes represent the tax burden which must be redistributed to the non-qualifying sector of the locality, or the dollar values of services which must be foregone. The average tax deferrment for these localities in 1976 was 345,128.56 dollars.

In conclusion, it appears that the Use-Value Assessment program has a noticeable impact on the tax base and revenues collected for these localities. The average reduction in tax base for 1976 was 6.83 percent. The average amount of tax dollars foregone for 1976 was 345,128.56 dollars.

IV. The Decision-Making Model as it Applies to the Exit of Parcels from the Program

In this phase of the program, the administrator must determine which parcels no longer qualify for special assessment, and if unqualified, whether or not roll-back taxes are due on the parcel. If such taxes are due, he must also decide the amount of these taxes.

Procedural Inputs in the Exit Phase: The procedural information from the state on how to administer the roll-back tax once a parcel is determined to be unqualified is in the use-value assessment statute, and is reasonably clear. If the parcel no longer qualifies, then a roll-back tax is due on the property for the current year as well as each of the five preceding years. Also, six percent interest

per annum is due on the roll-back tax for each of these years. The statute defines the roll-back tax to be equal to the difference between the special assessment tax and the tax on fair market value. It is the duty of the landowner to report the change in use within sixty days of its occurrence. If this change is not reported during this period, the landowner may be subject to special penalties as provided by the local ordinance.²³

The procedural information lacking, as mentioned in the section on entry to the program, is information defining clearly what constitutes a qualifying use. Once a parcel is declared unqualified, the procedure is straight forward. The procedural difficulty is in determining who is qualified.

Data Input in the Exit Phase: In this phase of the model, the applicant plays a major role. As stated above, the duty of notification of a change in use is given to the applicant. Once again, the applicant is in a position that encourages game behavior within his "black box." Due to his incentive to save money, he may consider not reporting a change in use. On the other hand, if he is caught, he faces additional fees for not reporting the change in use. Once again, the decision relies heavily on how he views the probability of being caught, and the benefits and costs involved.

In this instance, however, the problem is compounded further. Suppose the land is sold, and the new owner does not know the land is

²³Manual of the State Land Evaluation Advisory Committee, p. 7.

receiving special assessment. In such a case, a change in use would surely go unreported.

Due to the type of information being reported, (an affirmative or negative answer as to whether the land has changed use), no partial flow of information exists between the individual landowner and the administrator. Either a change is reported or it is not. Only if the problem is viewed in aggregate may partial information be available. (For example, whereas 50 percent of the changes in use may be reported, an individual change in use could not be 50 percent reported.) For these reasons, a serious gap in the applicant's input could occur. If this gap did occur, no administrative decision could bridge it, unless the changes were found by an administrative checking procedure.

Thus, the official is faced with incomplete procedural inputs and the probability of incomplete data from the landowners. The administrator faces the same influences in this phase, as in other phases. Marginal parcels, once accepted, will tend to remain in the program. Landowners not reporting a change in use, when one occurs, are not likely to be readily discovered, since a system checking for these changes is unlikely. It should be noted, however, that if a system of checks exists in any phase of the program, it will most likely be here. Revalidation is a check of current land-use. Whether or not revalidation is to be implemented is decided by the local legislature. This process may be designed to require a minimum of the administrator's time so that it aids him in maintaining the program, and as such, poses no procedural burdens. Also, the costs may

be minimal. Therefore, such a check may be desired by the administrator since it contributes to the ease of managing the program (updates the qualification status of the parcels and identifies those parcels on which a roll-back tax is due). Since non-qualifying parcels are identified by this procedure, it also aids the administrator in retrieving deferred taxes and increasing the tax base. Table 7 indicates that revalidation is the most common means of checking, and is used in thirteen localities.

The Effects of Social Pressure

Social pressure may play a significant role in this phase. If the public becomes aware of the decrease in the tax base due to services lost or increased taxes, they may press for increased collection of roll-back taxes. This would provide further encouragement for officials to check on parcels that changed use.

Court Decisions

Little legal action is expected in this phase. A striking difference may occur, however, in that the officials may be the parties bringing forth legal action on the enrolled landowner, where it had previously been the opposite. Such cases might occur in an attempt to collect roll-back taxes.

Diversity of Impacts and Methods of Administration: In conclusion of this chapter, one might well observe that the potential for the law to be applied differently than it was intended is considerably large. The information problems, both procedural and input, could become acute. Incentives exist for both the applicant and the

administrator to exercise their alternatives in a manner detrimental to the achievement of the statute's goals. Constraints on such decisions are in existence, but are not necessarily effective. The court system would seem to serve as a deterrent to some extent, but one cannot tell how much it will be a factor. Looking at the decision model, as it applies to use-value assessment law, it almost appears as if most of the decision-making powers were given to those who stood to gain the most from them. The applicant's word is the primary input, and the administrator has much leeway in his decision alternatives. Both have personal interests or incentives affecting their decisions in these cases.

It has been mentioned in various parts of this thesis that circumstances differ from one jurisdiction to the next. The extent of these variations, as they relate to the administration of the use-value assessment program, merit further discussion at this point.

As has already been mentioned, the administrator in charge of the program in each locality has considerable leeway in his decisions. Therefore, one may expect his decisions to reflect some of his personal biases, experience, and training. Furthermore, in the different localities, officials administering the program may be elected or appointed and thus may be subject to slightly different influences. Also, the other duties of these officials may also differ. For example, those duties performed by a Real Estate Assessor will differ from those performed by a Commissioner of the Revenue.

A second variable affecting the program is the local ordinance. Since these ordinances may differ, one would expect the administration of the programs to also differ.

Third, the size of the program, as reflected by the level of participation, is also expected to differ between localities. Where fair market values are high relative to use-values, one would expect widespread enrollment, since landowners stand to gain from enrolling in the program. In the case where these values are close, the enrollment would be expected to be lower. The size of enrollment may affect the influences on the administrator and the strength of the qualifying landowners as a political body.

Fourth, one would expect the size of the administrators staff and his funding to differ between localities. A small staff and budget could place a constraint on the rigor of administration.

Fifth, information available for the administrator's uses will vary. Not all localities have soil surveys completed at this time. The lack of such information would make the use of SLEAC values difficult, and would impair the effectiveness of the program.

Sixth, the needs of the localities will differ. Since a land-use plan is required before the state will approve a local use-value assessment ordinance, this plan may affect the local ordinance. Presumably, the needs of the locality will be reflected in the land-use plan, and such needs will differ between different jurisdictions.

Last, the demands for land will differ between jurisdictions. This will cause land prices to vary between jurisdictions, and thus cause differing impacts of the program in general.

Some examples of differences in the land-use program in the various localities due to these factors have already been presented. Table 1 indicates that of the nineteen localities for which information is available, only two consider the presence of noxious weeds in the conservation aspect of the program.²⁴ Table 1 also shows that the number of applicants turned down by these localities differ, as do their procedures in accepting applications. The range of applicants turned down varied from 0 in Fauquier County, Frederick County, and Fredericksburg City, to 275 in Culpeper County. It was also discussed that in some cases if a applicant is not qualified he is notified after he has made clear his intent to apply, but before the application is turned in (as in the case where landowners are notified of their qualification at the time of application pick-up).

A second example pointed out that the levels of enrollment for landowners and parcels vary from one locality to the next. Table 2 shows that the number of parcels enrolled in the program range from 0 (Cumberland County) to 2,307 (Albemarle County). This represents from 0 percent (Cumberland County) to 81.7 percent (Suffolk City) of the taxable land in these localities.

A third example discussed earlier in this chapter showed that where information was lacking, different types of shortcuts were employed, rather than trying to collect the information originally sought after. In Table 3, nine localities which administer use-value assessment without soil survey information are listed. Procedures of

²⁴Loudoun County and Amelia County.

administration employed to replace this soils data varied between localities, but were of two general types: either a method of estimating assessments with a general rule or weighted values was employed, or the responsibility of making these estimates was delegated to another official, or even the landowner himself.

In the discussion of the use of SLEAC values, it was pointed out in Table 4 that 11 of the localities surveyed apply SLEAC use-values, while the remaining 8 localities apply either their own values, or slightly adjusted SLEAC values. Even when SLEAC values are administered, these are likely to differ between localities. Of the eight localities not using SLEAC values, three use weighted averages for use-value assessments, three apply values slightly above those recommended by SLEAC, and two apply use-values significantly below those suggested by SLEAC, (as is shown in Table 5). Differences also exist in the recommendations and applications of use-values of quota. Table 6 indicates that only five localities are recommended to administer use-values of quota, and that two of these do not apply quotas as suggested.

Another major difference existing in the administration procedures used in different localities is the type of checks employed. Table 7 lists the major types of checking systems employed in each locality. Eight of the localities check each parcel by visitation; most of the remaining localities visit less than 25 percent of the qualifying parcels. Fourteen of these localities require revalidation on a regular basis. Fifteen localities are shown to employ other checks, the most popular being the use of aerial photographs. Table

8 also indicates a similarity in the levels of penalty collection, with only two localities collecting any type of penalties.

The localities differ not only on the requirements of revalidation, but also to some extent on the revalidation procedures employed. Table 11 indicates that only five of the localities surveyed did not require revalidation. Thirteen jurisdictions require annual revalidation, and one jurisdiction requires revalidation every three years. Of the fourteen localities requiring revalidation, five impose a revalidation fee similar to the application fee (except in Frederick County where the fee for revalidation is 5 dollars rather than the 10 dollar application fee).

The land-use program was also shown to have widely ranging impacts on the tax base of each locality. Table 9 indicates that the changes in tax bases vary from .39 percent in Fredericksburg City to 20.63 percent in Suffolk City. Taxes deferred in 1976 ranged from 8,965 dollars in Frederick City to 1,107,934 dollars in Virginia Beach City.

Table 10 indicates that the collection of roll-back taxes also varies between jurisdictions. Eight of the jurisdictions for which information is available collected no roll-back taxes, while six have collected roll-back taxes ranging from 9.60 dollars in James City County to 108,862.06 dollars in Prince William County.

Many of the differences observed in the impacts of the land-use program on different localities are partially due to the length of the period for which use-value assessment has been approved for that locality. For example, the age of the land-use program would be

Table 10. The Roll-Back Taxes Collected in 1976 in the Virginia Localities Administering Use-Value Assessment.

Jurisdiction	Roll-Back Taxes Collected
	1976
Albemarle County	1328.22
Amelia County	0
Chesapeake City	0
Chesterfield County	a
Clarke County	171.96
Culpeper County	31.99
Cumberland County	0
Fauquier County	5067.75
Frederick County	a
Fredericksburg City	0
Hanover County	b
James City County	9.60
Loudoun County	a
Petersburg City	a
Powhatan County	0
Prince George County	0
Prince William County	108,862.06
Roanoke County	a
Suffolk City	0
Virginia Beach City	a
Warren County	0

^aNot available.

^bEstimated less than zero.

Source: Survey conducted by the author.

Table 11. Application and Revalidation Fees in the Virginia Localities Administering Use-Value Assessment.

Jurisdiction	Application Fee	Revalidation Required	Revalidation Fee
	--dollars--		---dollars---
Albemarle County	a	No	-
Amelia County	10	Every 3 Yrs.	0
Chesapeake City	10	Annually	0
Chesterfield County	10	No	-
Clarke County	5	Annually	5
Culpeper County	25	No	-
Cumberland County	-	-	-
Fauquier County	0	Annually	0
Frederick County	10	Annually	5
Fredericksburg City	25	Annually	25
Hanover County	10	No	-
James City County	b	Annually	0
Loudoun County	c	Annually	0
Petersburg City	d		
Powhatan County	10	Annually	0
Prince George County	e	Annually	f
Prince William County	10	No	-
Roanoke County	b	Annually	0
Suffolk City	c	Annually	0
Virginia Beach City	0	Annually	0
Warren County	10	Annually	10

^a15 dollars for first 100 acres, plus .15 for each additional acre.

^b10 dollars plus .10 per acre.

^c10 dollars or .10 per acre, whichever is greater.

^dDid not participate in the survey.

^e10 dollars for first 100 acres, .02/acre for each additional acre.

^fSame as application fee.

Source: Survey conducted by the author.

expected to affect the level of enrollment in that locality, since enrollment appears to increase with time, at least for the early stages of the program. Table 14 lists the dates when the use-value ordinance became effective in each locality. Only four have had use-value assessment since 1973; nine more approved use-value assessment for 1976. The dates of effect should be taken into account when comparing impacts of the program on different localities; especially when variables closely linked to age of the program are discussed.

Also listed in Table 14 are the tax rates and assessment ratios in the different localities for 1976. Since these variables determine the tax bills of the qualifying and non-qualifying landowners to some extent, one would expect differences in tax rates for example to affect the level of incentives landowners would have in applying for the program.

Table 14 also lists the land classes approved for use-value assessment in each locality. Essentially all localities surveyed approved use-value assessment for all four classes of land approved by the state: agriculture, horticulture, forest and open space. Culpeper County did not approve open space lands for acceptance in the program, and James City County did not approve forest or open space lands.

Differences also are evident in the collection of application fees. As is shown in Table 11, all but two of the localities charge some application fee. Eleven of these localities charge a flat rate varying from 5 to 25 dollars, with the most common fee being 10 dollars. Six localities charge variable rates, which may involve either

a flat fee plus a per-acre rate, or, it may involve charging a flat fee or a variable rate whichever is larger. For example, Prince George County imposes a fee of 10 dollars for the first 100 acres plus 2 cents for each additional acre enrolled. Loudoun County, on the other hand, charges 10 dollars or 10 cents per acre whichever is greater.

Table 13 indicates the differences in costs of administration in the various localities. These costs are shown as estimates of man-hours spent administering the program, and the costs of the program measured in personnel salaries and equipment expenditures. Since these records are not generally kept in the localities, the value in this table are broad estimates of these costs. The values estimated for the man-hours spent administering this program ranged from 128 man-hours per year in James City County to 5,200 man-hours per year in Albemarle County. The average of these estimates was 2,036.5 man-hours per year. Costs of the program for salaries and equipment ranged from 1,500 dollars in Powhatan County to 43,000 dollars in Chesapeake City. The average cost was estimated to be 11,382.13 dollars.

Table 12 indicates the different responses of the administrator to specific situations in the different localities. The first column indicates the lot size officials attribute to the house and is thus not eligible for special assessment. Fifteen of these localities appeared to use a minimum standard of one acre. Other lot size standards used are one-half acre in Fredericksburg City, two acres in Warren County and three acres in Loudoun County.

Table 12. Lot Sizes Designated and Effects of Zoning on Qualification in the Virginia Localities Administering Use-Value Assessment.

Jurisdiction	Acreage Assigned as Lot Size for a House	If a Qualifying Landowner Petitioned for a Zoning Change to a Higher Use, Would This Remove His Land From Use-Value Taxation
Albemarle County	1 acre	No
Amelia County	1 acre	No
Chesapeake City	variable	No
Chesterfield County	1 acre	No
Clarke County	1 acre+	No
Culpeper County	1 acre	No
Cumberland County	-	-
Fauquier County	1 acre+	No
Frederick County	1 acre	Yes
Fredericksburg City	½ acre	No
Hanover County	1 acre	No
James City County	1 acre	No
Loudoun County	3 acres	Yes
Petersburg City	-	-
Powhatan County	1 acre	Yes ^a
Prince George County	1 acre	No
Prince William County	1 acre	Yes
Roanoke County	1 acre	No
Suffolk City	1 acre	No
Virginia Beach City	b	Yes
Warren County	2 acres	Yes ^a

^aBut only if zoning change was approved.

^b1 acre for houses, 1/4 acre for tenant houses and mobile homes.

Source: Survey conducted by the author.

Table 13. Costs of the Use-Value Assessment Program Measured in Man-Hours and Dollars in the Virginia Localities Administering Use-Value Taxation.

Jurisdiction	Estimates of Man-Hours Spent Annually Administering the Program	Cost of the Program
Albemarle County	5200	29,349
Amelia County	500+	1,750
Chesapeake City	4528	43,000
Chesterfield County	867	15,000
Clarke County	1200	6,000
Culpeper County	3033	14,581
Cumberland County	-	-
Fauquier County	3750	2,927 ^a
Frederick County	3000	8,000
Fredericksburg City	-	-
Hanover County	1200	3,750 ^b
James City County	128	5,550
Loudoun County	-	-
Petersburg City	-	-
Powhatan County	520	1,500+
Prince George County	-	7,000
Prince William County	1213	6,125+
Roanoke County	-	-
Suffolk City	3120	17,900
Virginia Beach City	2080	11,000
Warren County	2080	-
	$\bar{X} = 2036.5$	$\bar{X} = 11,382.13$

^aNumber of man-hours exceeds cost.

^bNo additional funds were appropriated for administration of the program. These costs represent the wages necessary to have hired an additional staff member to perform these duties. The cost in this instance may actually be considered the loss of services, if there were any, to the community due to the increased work load on the administrators and staff, brought about by this program.

Source: Survey conducted by the author.

The second column of Table 12 lists administrators' responses to the survey question, "If a parcel in your jurisdiction were under use-value taxation and the owner petitioned for a zoning change to a higher use, would this remove his land from use-value taxation?" Six officials answered affirmatively, with two of these qualifying their answers, saying that the parcel would no longer receive special assessment if the zoning change were approved.

In a 1973 study by Barron and Thomson, the authors noted the somewhat unusual existence of land parcels whose use-value exceeded their market value.²⁵ In order to determine whether this was a phenomenon local to their study, this question was asked to the local officials. Surprisingly, all but two indicated that at least a few parcels in their jurisdiction had at one time had use-value assessment in excess of their market value assessment. At least thirteen indicate this is still the case in their locality. The extreme example of this situation is Cumberland County where the use-value assessment exceeds the market value assessment for all qualifying parcels. Due to this situation, no one has applied for special assessment in this locality.

The second question listed in Table 15 asked, "Does this jurisdiction have any qualifying parcels that are being developed, in part, as the roll-back tax is being paid on the acreage converted to non-qualifying uses? If yes, describe the extent of this conversion."

²⁵James C. Barron and James W. Thomson, "Impacts of Open Space Taxation in Washington," Agricultural Experiment Station, College of Agriculture, Washington State University, March, 1973, p. 14.

Table 14. Effective Date of Use-Value Assessment Ordinance, Tax Rates, Assessment Ratios, and Classes of Land Qualifying for Special Assessment in Virginia.

Jurisdiction	Date Ordinance Became Effective	1976 Real Estate Tax Rate Per \$100 of Assessed Value	1976 Local Assessment Ratio	Classes of Land ^a Qualifying for Use-Value Taxation
Albemarle County	1975	4.80	15%	All Four
Amelia County	1976	3.40	12%	All Four
Chesapeake City	1976	3.12	50%	All Four
Chesterfield County	1974	3.20	35%	All Four
Clarke County	1974	2.40	25%	All Four
Culpeper County	1976	4.30	20%	Agric., Horticulture, Forest
Cumberland County	1977	5.20	18%	All Four
Fauquier County	1973	4.20	20%	All Four
Frederick County	1974	2.30	20%	All Four
Fredericksburg City	1976	3.20	40%	All Four
Hanover County	1974	2.60	30%	All Four
James City County	1975	3.05	30%	Agric. & Horticulture
Loudoun County	1973	2.35	40%	All Four
Petersburg City	-	-	-	-

^aFour classes of land were authorized by the state as qualifying for land-use taxation. The individual localities may choose to give special assessment to any or all of these classes. The four classes are agricultural, horticultural, forest, and open space lands.

Table 14.--Continued.

Jurisdiction	Date Ordinance Became Effective	1976 Real Estate Tax Rate Per \$100 of Assessed Value	1976 Local Assessment Ratio	Classes of Land ^a Qualifying for Use-Value Taxation
Powhatan County	1976	2.55	33-1/3%	All Four
Prince George County	1976	2.40	30%	All Four
Roanoke County	1976	2.95	40%	All Four
Suffolk City	1976	2.60	35%	All Four
Virginia Beach City	1973	1.41	60%	All Four
Warren County	1976	3.00	20%	All Four

^aFour classes of land were authorized by the state as qualifying for land-use taxation. The individual localities may choose to give special assessment to any or all of these classes. The four classes are agricultural, horticultural, forest, and open space lands.

Source: Survey conducted by the author.

Table 15. The Existence of Parcels with Use-Value Exceeding Market Value, and the Extent to Which Portions of Parcels are Developed, Paying Roll-Backs Only on These Parts, in Virginia.

Jurisdiction	Question: "Are there any cases in your jurisdiction in which the use-value valuation of a parcel exceeds its market value valuation?"	Question: "Does this jurisdiction have any qualifying parcels that are being developed in part, as the roll-back tax is being paid on the acreage converted to non-qualifying uses?"
Albemarle County	Yes, forestry	Yes, all but two roll-backs have been of this type
Amelia County	Yes, about 10 (they were told not to apply)	Yes
Chesapeake City	A couple (Dismal Swamp)	Yes, one major development (3000 acres)
Chesterfield County	Yes, due to lowered market values	Yes, selling road front lots
Clarke County	Yes	Yes, a subdivision (218 acres of 500 acre tract)
Culpeper County	Yes	Yes
Cumberland County	Yes	-
Fauquier County	Yes, due to low appraisals in 1973	Yes, one major development
Frederick County	Yes, open space land	No
Fredericksburg City	No	No
Hanover County	Not now, did when SLEAC values were used	Yes, primarily one acre lots sold to a family member
James City County	None on file, they were told not to apply	No
Loudoun County	Not now, did a year ago	-
Petersburg City	-	-
Powhatan County	Yes	No
Prince George County	Yes	No

Table 15.--Continued.

Jurisdiction	Question: "Are there any cases in your jurisdiction in which the use-value valuation of a parcel exceeds its market value valuation?"	Question: "Does this jurisdiction have any qualifying parcels that are being developed in part, as the roll-back tax is being paid on the acreage converted to non-qualifying uses?"
Prince William County	Not now, but there was before last reassessment	Yes, about 2,600 acres in the past year
Roanoke County	Yes, good land with poor access	No
Suffolk City	Yes	No
Virginia Beach City	No, this was taken care of by not using SLEAC values	Yes, subdivisions
Warren County	No	No

Source: Survey conducted by the author.

Ten answered that this type of development was proceeding in their localities, while nine officials said they had no knowledge of such developments. Of the localities where this type of development is occurring, five indicate this was being done primarily in large developments and subdivisions. Another locality indicated this was being done with the development of road front lots. The officials in Albemarle County explained that all but two of the roll-backs collected had been of this type.

Many of the differences mentioned in this chapter may be attributed to factors outside the administrator's control, such as the date the ordinance became effective, assessment ratios, tax rates, and certain requirements in the ordinance. Other differences discussed in this chapter, however, may be subject to his control. These variables include such decisions as man-hours allocated to the program, checking procedures employed, acreage allocated for house lots, the effects of a change in zoning on the qualification of a parcel, and other decisions involving interpretation of the law. The differences in these latter factors occur due to different weighting schemes of the administrators within their "black boxes" as described in the model. In the cases discussed here, many of the influences were intermingled so that the results observed were not predictable, nor were the influencing factors separable. Additional insight to the influences affecting administrators may be obtained by studying different decisions within one jurisdiction rather than studying one decision for many jurisdictions as was done here. The second approach was used here since our objective was to determine the

procedures and problems of administration rather than to analyze the factors influencing individual administrators. In making the analysis of one decision over many localities, it does appear that often in particular issues, one influence may be common to the majority of these administrators so that a particular tendency becomes evident. If such an observed tendency were considered to be an application of the law contrary to its intent, and corrective measures were desired, then the decision model developed here may be useful. By changing the information inputs or constraining the alternatives when the influences of rationality produced undesirable results, one might force the resulting decisions to provide applications of the law closer to its original intent.

CHAPTER V

SUMMARY AND CONCLUSION

Research Objectives

The purpose of this thesis has been to analyze applications of the use-value taxation law contrary to its intent, and to identify the factors contributing to these misapplications. In addition to contributing to the solution of problems in administration, such an analysis begins to lay the groundwork for an evaluation of the use-value taxation statute. By identifying those problems that arise due to factors in administration, one may assume with some degree of certainty that the remainder of the problems observed are limited to the theory and content of the statute. No single effort could identify all problems in administration, nor does this thesis pretend to. It does, however, identify the current practices used in administering use-value taxation, list many of the problems administrators encounter, and also point out factors contributing to potential problems in use-value taxation. In addition to providing data describing current practices in administration, this thesis presents a model which explains the decision process of local officials administering use-value taxation.

Methodology

The data necessary for determining the current practices in administering use-value taxation in Virginia were obtained by conducting a survey of the local officials in charge of administering this ordinance. This involved interviews with the Treasurer and either the Commissioner of the Revenue or the Real Estate Assessor in twenty of the twenty-two localities having approved use-value taxation for 1976.

The decision model was constructed with the support of the data provided by these officials. The model represents a flow of information from the qualifying landowner and the state and local legislators, to the decision-making official. Factors influencing these landowners and decision-makers were taken into account, and may be grouped under a broad title, as rational influences. From this model, application of the law contrary to its intent may be linked to either breakdowns in the flow of information or to the influencing factors worked into the model. The model also indicates certain trends in administration and land use to be expected. These trends are then discussed as they relate to the survey data.

Results and Conclusions

By explaining the decision process and the factors influencing local administrators, the model may be used to suggest tendencies one might expect, given existing information. These tendencies are noted in Chapter IV, but will be restated briefly.

If the existing guidelines of qualification are interpreted leniently, as the model suggests, marginal and unqualified parcels will likely be accepted into the program. Parcels that are qualified will all be accepted. The available survey data address this point only indirectly, and cannot be used to justify nor deny this prediction. In order to substantiate this trend, data on the individual parcels in a given jurisdiction are needed.

The model also indicates that both the number of landowners and the acreage of land enrolled in the program will be substantial. Although estimates of the number of landowners applying for the program in each locality were not available, both the number of parcels and the percentage of land in each jurisdiction enrolled in the program were substantial. Seven localities had in excess of 1,000 parcels receiving use-value taxation.¹ Eight jurisdictions had in excess of 30 percent of their total land base receiving use-value taxation.²

The decision model indicates points where information breakdowns may occur. In many cases, local officials cannot afford the time or money to obtain the necessary information for themselves. Consideration of the factors influencing local administrators would lead one to expect officials will bridge these information gaps using estimation techniques. Although a knowledge of the internal workings of the

¹Albemarle County, Chesapeake City, Fauquier County, Frederick County, Hanover County, Suffolk City, and Virginia Beach City.

²Chesapeake City, Clarke County, Fauquier County, Frederick County, Powhatan County, Prince George County, Suffolk City, and Virginia Beach City.

administrative staff would better substantiate this tendency, such information would be difficult to obtain. Instead, support for this expectation is obtained by observing reactions to a known information shortage. The survey data indicate that when soils data were unavailable, one of two alternatives were taken. Either the administrator would employ some method of placing an average or weighted level of productivity on the parcel, or the responsibility of estimating soil productivity would be delegated to another official or the landowners. Although this does not imply that all jurisdictions employ such methods of estimation, it does indicate that time is an important consideration to the local officials administering use-value taxation.

One would also expect local officials to apply the use-value suggested by SLEAC. Eleven of the nineteen localities for which the data were available did use SLEAC values. Several of those not using SLEAC values apparently lacked the soils productivity classifications necessary for administering the SLEAC values.

In cases where SLEAC values are not used, one would expect lower values to be administered. Of the eight jurisdictions not using SLEAC values, three applied values slightly above those suggested by SLEAC, three applied averaged values and could not be compared directly with the SLEAC suggested values, and two localities applied use-values considerably below those recommended by SLEAC. Although the direction of this tendency is not as clear as might be expected, it is interesting to note that the increases above SLEAC values in the three localities applying higher values were minor compared to

the decreases below SLEAC values evidenced in the two localities using lower values.

Use-values of quota are expected to be closely related to the use-values applied. For example, if use-values applied are below those suggested by SLEAC, then lower use-values of quota are also to be expected. The one exception is where use-values of quota are lower than recommended by SLEAC, even though the suggested use-values were employed. This might occur due to conceptions of the use-values of quota being additional taxes, and are thus more vulnerable to political pressures. Use-values of quota are recommended by SLEAC for only five localities. Of these five localities, two apply use-values of quota as recommended, one applies higher values, one applies lower values, and the values applied by the fifth were unavailable.

Earlier it was pointed out that a large number of applicants should be expected to be accepted for use-value taxation. In addition, the use-values administered in the various jurisdictions were shown to be predominantly at or below the levels recommended by SLEAC. It follows that if these situations occur as expected, the impact on the tax bases of the different localities should be substantial. The survey data supports this conclusion. Four jurisdictions had a decrease in their tax base exceeding 10 percent.³ Eleven jurisdictions

³ Albemarle County, Amelia County, Powhatan County, and Suffolk City.

lost in excess of 100,000 dollars in foregone taxes in 1976.⁴ Both Prince William County and Virginia Beach City lost in excess of 1,000,000 in deferred taxes.

The model also indicates that checks on information provided by the applicant or checks on the use of land, other than revalidation are not to be expected. Even though many administrators claimed to enforce different types of checks, it appears these checks were relatively ineffective. Apparently only two jurisdictions discovered changes in land-use without proper notification, and no misstatements in application were recorded. This is especially significant considering that several officials complained of improper notifications in land-use in their locality, but no penalties were recorded. The expectation that few penalties would be collected, as indicated by the model, holds to a greater extent than one might anticipate, especially when the complaints by local officials of abuse of the program are considered. This would indicate that even when these checks are effective, and violations are discovered, officials are reluctant to impose these penalties. This reluctance combined with ineffectiveness of the checking systems would better explain why no penalties were collected for misstatement in application, and only two localities collected penalties due to improper notification of changes in land-use.

⁴Albemarle County, Chesapeake City, Chesterfield County, Culpeper County, Fauquier County, Hanover County, Powhatan County, Prince George County, Prince William County, Suffolk City, and Virginia Beach City. The data for Fauquier County indicates taxes foregone in 1975 rather than 1976.

Due to the diversity existing among the different localities, one would expect to observe many differences in the methods used to administer use-value taxation. Many of the differences evident in the data have already been mentioned including different qualifications for entering the program, different levels of enrollment, different amounts of information available, as well as different methods of bridging these information gaps, different use-values and use-values of quota being administered, different types of checks being employed, different impacts on the tax base in each locality and difference in the level of roll-back taxes and penalties collected. In addition, one may readily observe other differences in each locality, including length of enrollment in the program, different tax rates and assessment ratios, different land classes approved for use-value assessment in certain localities, different fees of application, different revalidation procedures, different costs of administration in the localities, as well as different responses from the administrators to given situations. Apparently, the broad range of alternatives available to the officials in their decision-making is accounted for by the diverse methods of administering use-value taxation.

The diversity observed in methods of administering use-value taxation also limits the scope and conclusions of this study. Due to the different factors influencing each locality, and the different practices observed, grouping according to common attributes is no simple task. This lack of commonality among localities makes prediction in quantitative terms and statistical tests difficult. In

addition, since these localities have participated in the program, differing lengths of time, the observation of trends from these data is also difficult.

A further restriction results from the type of data collected. By necessity, the survey data reflect the opinions of the administrators in charge of the program. These opinions are likely to change over time, or with a change in administrators.

As mentioned earlier, this thesis does not purport to evaluate all aspects of use-value taxation in Virginia. Instead, it addresses only the administration of use-value taxation. Further evaluation of the entire program is necessary. An evaluation of the capability of the statute to meet with its intent would also be beneficial. In addition, an evaluation of the program as part of the land-use plan for the jurisdiction may be desired, since use-value taxation represents only one tool in implementing a comprehensive land-use program.

Finally, one should note that this study made no attempt at comparing the social costs and benefits of the program. A complete evaluation of this program should address this point.

Implications

None the less, the analysis presented in this thesis indicates that the program is being administered contrary to its intent in at least several circumstances, and that these deviations stem from either insufficient information or rational influences, or some combination of the two, as explained by the model. For example, it is apparent that the program is being entered by many individuals who

are not bona fide farmers in any sense of the word, as is shown by the extent to which developers are receiving the lower assessments. Similar situations in other localities may be expected, although they are not documented. It is probable that the qualifications for entry to the program are so broad that parcels not intended for qualification are accepted into the program. Furthermore, discovery of persons making application with incorrect data or making improper notification of a change in land-use is not likely. In addition, at least two localities appear to be administering use-values well below those intended to be used.

If the program is being widely abused and assessments are below those intended by the law, then this will have two major impacts on society, and specifically the local taxpayers. First, the program will not provide the locality with the desired reforms to slow the conversion of agricultural lands to non-agricultural uses. If the program is widely abused, the effects on the desired patterns of land-use may even be negative. Perhaps the most significant of the impacts is that the non-qualifying taxpayer may pay additional taxes to support a program having negligible or negative impacts on land-use. One official estimated that the non-qualifying taxpayer must pay an additional 90 dollars each year to support this program. With the increases expected in the number of localities approving this ordinance and with the increased number of participants expected in each locality already having use-value taxation, these costs are likely to increase.

Policy Recommendations

Before one can make recommendations for reducing the extent of these abuses to acceptable levels, he must define the objectives to be met, and the viewpoint to be taken. For example, choosing either to provide more efficient, or more equitable administration of taxation would be a legitimate objective, and each may be accompanied by different policy recommendations. This is also the case if one chooses to discuss these objectives from the standpoint of the locality or the state. Choosing the objective and viewpoints appear to be value judgments and may not be the same choices made originally when this statute was passed. None of these objectives will be addressed explicitly in the following discussion. Instead, the objective will be to improve the workings of the decision model by encouraging the flow of information in the model and to a minor extent address the rationality influences on both the applicant and the administrator. This approach has all the attributes of avoiding major value judgments (which could in itself be a value judgment), but has all the drawbacks of not clearly identifying the major objective, other than meeting with the intent of the law, or the primary viewpoint, whether local or statewide. This is partially necessary because the law itself also has this shortcoming. In consideration of the problems of administration, this may be the underlying fault of the law. In an effort to alleviate statewide problems the program was begun; in an effort to satisfy local governments, the statute was loosely written, leaving the opportunity for broad interpretations.

The major source of problems in administering use-value taxation, as explained by the model, is the existing breaks in information in the various stages. To a somewhat lesser extent, the rationality and survival instincts influence the decision-makers. Any improvements in administering use-value taxation, as suggested from application of the model, will be made by manipulating these factors.

If the objective is to aid the administration of use-value taxation to meet the intent of the law, this may be approached by improving the decision-making procedure as depicted by the model. Major advances may then be made by eliminating breakdowns in information where they occur. One such break in information can be avoided, at least partially, by improving the guidelines of administration. Information flow from the state has been lacking in that the local officials are not told exactly how to administer their ordinances. The rationale behind this is that since different localities have different needs, their use-value assessment programs should be different. This creates a situation where local administrators must make these decisions on qualifications and procedure, therefore increasing the potential for applications of the law contrary to its intent. One means of providing the guidance necessary to avoid undesirable decisions, while at the same time providing for variety in local programs, would be to adopt "if-then" guidelines for the local administrators to choose from. This means essentially, that "if" this procedure is taken, or this goal is desired, "then" this is the means of administration to be followed.

An example that comes to mind readily is the case where landowners are applying for use-value taxation and are then developing portions of the total land parcel, while paying roll-backs only on these developed sections. The apparent intent of ownership is to collect profits from the sale of these developed portions. This practice appears to be widespread and not within the original intent of the law. This situation is known to occur in several localities.

This particular part of the law which allows development of segments of a land parcel while charging roll-back taxes on only the developed segment has met with some criticism. Although this provision allows other family members to build on agricultural land, it also allows development by speculators while retaining use-value taxation. As defined earlier, a speculator is one who owns land not for the annual income derived from its productive capabilities, but for the income derived from its value appreciation. This statute sought to provide tax equity for bona fide farmers (not speculators) and to prevent conversion of agricultural land to non-agricultural uses (rather than encourage it). Obviously, this practice is outside the intent of the law.

Dealing with this type of abuse appears difficult, especially if one tries to correct this problem by predetermining the landowners intentions. Although this situation may not be totally corrected, it could be restricted in various ways through the implementation of more stringent guidelines. First, the development of segments could be restricted by limiting the number of parcels or acreage that may be developed if the land is to retain its special assessment. This would

allow the landowner to develop portions for family housing (as with a son or daughter who remains on the farm) but would limit the continued sale of fifteen acre tracts, which still qualify for use-value taxation due to lenient guidelines. Such a provision would encourage landowners to retain land in agriculture, but would create a situation where sooner or later speculators would eliminate themselves from the program. This is just an example of one step that could be taken to help eliminate this type of abuse. Obviously, if more stringent guidelines were desired, other steps would also be necessary to further reduce this level of abuse. (These may include higher levels of farm income as a percentage of total income, larger farm sizes, or some combination of the two.)

A second improvement in the flow of information in the model is possible by improving the input data concerning the land parcel's qualifications. In this instance, the probability that the program was administered according to its intent could be improved by narrowing the ranges of decisions for both the administrator and the applicant. By basing qualification more on quantifiable data, then the number of judgment decisions required by local officials could be reduced, and the possibility of inaccurate information supplied by landowners could also be reduced.

This situation will be improved to some extent as soil surveys are completed in the localities having use-value taxation. This will replace with soil-productivity data several systems of averaging land classifications.

Other quantifiable measures could also be worked into the program to reduce the number of judgments required of administrators. In many localities, farm income statements are required as a check on the qualifying parcel.⁵ Indeed, some parts of the application may be difficult to quantify, such as the requirements for conservation, but certainly some gains may be made in this area by reducing the number of judgment decisions imposed on local officials.

A third method of increasing the probability that the program will be administered according to its intent is by educating the non-qualifying landowners about use-value taxation. As depicted by the model, officials are aware of the desires and opinions of their local constituents. If these non-qualifying landowners were aware that the tax burdens deferred from qualifying owners were redistributed among the non-qualifying owners (assuming no reduction in services or costs of services), then serious abuse of the program (and in some cases, the program itself) may cease. As mentioned earlier, one local official estimated that the average landowner in his locality pays about 90 dollars a year to support this program. If non-qualifying landowners had this information at their disposal, they could decide for themselves if the program was worth its cost to them, or they could at least make sure they were not supporting undesired development of the county with their tax payments.

⁵ Carl F. Corwin, "Land-Use Differential Assessment of Real Estate in Warren County, Virginia," presented at the convention of the International Association of Assessing Officers, Atlanta, Georgia, November, 1976.

A fourth means of eliminating abuse of the program would be to further restrict the decision alternatives of local officials in instances where they have incentives to administer the program contrary to its intent. For example, the model indicates that the qualifying landowners may strive for lower assessments of their land in order to save tax dollars. In some cases, local governments may have qualifying landowners in positions such that these influences are strong enough to significantly lower assessments. For example, both Hanover County and Virginia Beach City used significantly lower use-values than were suggested by SLEAC. The intent of the program does not appear to be a welfare program for farmers, but a program taxing land at its use-value rather than its fair market value. Educating the non-qualifying landowners may help alleviate this problem, but further steps may have more effect. In cases where it appears officials may have incentives to administer the law contrary to its intent, such as administering lower use-values, the alternative available may be restricted. In this instance, apparent abuse of the program could be eliminated by making the SLEAC suggested values the minimum acceptable values, if not mandatory values. This would still allow the values to be adjusted upwards, if the SLEAC values were unrealistically low. If the SLEAC values were unrealistically high, then this type of feedback would flow quickly since the qualifying owners have sufficient interest to protest the application of excessive use-values.

The survey data indicate that most of the localities in the program employ some means of checks, but at the same time, the data suggests that these checks may be either ineffective or administered

leniently. Fifteen localities indicated that checks other than visitation were employed, while seven localities indicated that all qualifying parcels were visited.⁶ At the same time, however, it appears that only two localities have collected any penalties for lack of notification in the change of land-use, and no penalties have been collected due to misstatement in application.⁷ This appears unusual when one considers that several officials complained that notification of a change in land-use was a problem, but at the same time no penalties had been imposed in those localities. This would suggest that the problem involves both a reluctance to impose penalties as well as an inability to catch those at fault. This situation could pose a problem to future administrators. The model suggests that for landowners who would consider avoiding taxes illegally, feedback indicating a low risk of being caught encourages abuse of the program. An effective system of checks would help avoid this type of potential abuse.

The type of checks employed should be simple. As was pointed out in the discussion of the model, time is an important constraint to administrators; the less required the better. Furthermore, the necessary checks should be free of judgment decisions, and quantifiable if possible. One type of check that meets these requirements is annual revalidation, using a shortened form. In this way, the

⁶See Table 7.

⁷See Table 8.

landowner can see the checking system in action, since he has to fill out the form. Second, this type of check requires little of the administrator's time compared to other checks, since the applicant must fill out the forms. Furthermore, it aids the administrator in obtaining information that is especially difficult to obtain, that is, which parcels have changed use. Although this type of check may be subject to manipulation by the applicant since he supplies all the information, this situation would be no different or worse than the application procedure and appears to have positive benefits. In addition, the costs of this checking procedure to the administrator are low in terms of both time and money when compared to alternative checks.

Other checks should be encouraged, but should probably remain optional. Although visitation of parcels would be an excellent check, few localities can afford the personnel or cost of this type of check on all parcels.

One type of check used in certain localities (for example, Suffolk City) is the use of deed transactions as an indicator of a change in use. Although a sale does not necessarily indicate a change in use, it may precede it. By notifying the new owner about the regulations, this type of information flow at least improves the chances that a change in use will be discovered. This type of feedback within local governments is also an inexpensive check in terms of time and money.

This discussion is not meant to provide a comprehensive list of ways to improve administration of use-value taxation. Instead, it

should point out one of the major uses of the model; that is, administration of this program may be improved by identifying breaks in the flow of information and by taking corrective measures to improve this flow. When it appears that individuals may profit by actions which are contrary to the intent of the law, the range of decision alternatives may be restricted in order to prevent these actions from occurring. In conclusion, it appears that many of the problems in administration identified by this survey are created by information breakdown or excessive leeway in decision alternatives. The use of the model presented in this thesis should be helpful in identifying and eliminating these problems.

Suggested Additional Research

This study was limited to a specific phase of evaluation of use-value taxation; that of administration and implementation at the local level. In the course of conducting this study, many researchable questions outside the objectives of this study were recognized. Much of the research which has been conducted in other states has applicability to Virginia.

Additional research in Virginia would provide useful insights to the extent of these abuses occurring within localities. Case studies of certain jurisdictions may prove especially beneficial. Important questions for which answers might be sought in a case study include the following:

- 1) Are marginal and non-qualifying parcels being accepted for use-value taxation? If so, is this

due to lenient qualifications for entry or misstatements in application?

- 2) In localities determining their own use-values, what procedures are used?
- 3) To what extent are the checking systems employed, and if they are employed, why are they not effective?
- 4) Why are so few penalties charged; is the fault in the checking systems, or is there a reluctance among administrators to impose these penalties?
- 5) What causes use-value assessments to exceed market value assessments in many of these localities? Are the use-values applied too high, are the productive capabilities of the land overestimated, does de facto preferential assessment still exist, are past assessments outdated due to rises in land values, or did the real estate assessor over-compensate for certain factors which lower the market value assessment?
- 6) Does use-value taxation have any noticeable effect on land-use? Could this effect be that the rate of conversion of agricultural land is actually increasing? Are patterns of land enrolled in the program beginning to emerge?

- 7) Who are the landowners who are presently enrolled in the program, in terms of occupation, income derived from agricultural production, etc.?
- 8) What size parcels are enrolled in this program? Are they large enough to be commercial farms; are most of these parcels barely in excess of the minimum requirement?
- 9) What factors seem most influential in affecting local administrator's decisions? How do these relate to the decision model developed in this thesis?

A study at a later date, in the localities in which use-value taxation is just becoming effective, might provide the data necessary for testing the decision model developed in this thesis. This model, if valid, could be a useful tool in identifying and solving many of the problems in administration.

Once these questions are answered, one may ask an even more important question: If the problem in administration are confined to an acceptable level, is the Use-Value Taxation Statute capable of providing for slower rates of conversion of agricultural lands and equitable taxes for farmers, at an acceptable cost to the non-qualifying taxpayer? This thesis, as does other research on the administration of use-value taxation, seeks to eliminate problems in administration, and by doing so, provide a basis for evaluating the use-value assessment statute and its underlying theory. The tax paying public cannot afford to subsidize a program as expensive as this one, if it fails to meet its objectives.

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APPENDIX A
COPY OF SURVEY USED

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COPY OF SURVEY USED

Department of Agricultural Economics
Research Division
VPI&SU
Blacksburg, Virginia

October 11, 1976

The information requested will be used in a research effort of the Research Division of Virginia Polytechnic Institute and State University. It will be used in an aggregative manner and the source of particular information which is not a part of the public record will not be divulged. The emphasis of the research effort is to thoroughly examine the implementation of use-value assessment legislation in all localities which have adopted it.

Your cooperation and assistance in this research effort will greatly improve the results. We hope this effort will be beneficial to your locality and to the Commonwealth in carrying out the intent and purposes of the legislation.

Survey of Use-Value Taxation Application

- A.
 - 1. Name of Jurisdiction
 - 2. Title of Assessing Officer
 - 3. Name of Assessing Officer
 - 4. Name of Officer(s) Providing Data
 - 5. Telephone Number(s)
 - 6. Date of Interview
- B.
 - 1. Date Use-Value Ordinance Enacted by Jurisdiction
 - 2. Date Ordinance Became Effective
 - 3. 1976 Local Real Estate Tax Rate Per \$100 of Assessed Value
 - 4. 1976 Local Assessment Ratio
 - 5. Classes of Land Authorized to Qualify for Use-Value Taxation
 - 6. Real Property Tax Parcels in Jurisdiction
 - a. Number of, Total
 - b. Total Acreage of County
 - c. Number of Parcels for Which Applications were Filed
 - d. Number of Acres for Which Applications were Filed
 - e. Number of Landowners to Qualify
 - f. Number of Parcels Which Qualified
 - g. Number of Acres Which Qualified
 - 7. Assessed Value of all Locally Assessed Taxable Real Property

Before Last Reassessment in; After Last Reassessment; 1975

Tax Year

Land, Based on Market Value; After Last Reassessment; 1975

Tax Year

Improvements Based on Market Value; After Last Reassessment;

1975 Tax Year

Total

C. 1. List Use-Values Applied by this Jurisdiction in 1976 for Each

Land Class

Agriculture Horticulture Forest Open Space

I.

II.

III.

IV.

V.

VI.

VII.

VIII.

2. Are These Annually Recommended Use-Values Applied Each Year?

If not, what is done?

3. List Quota Use-Values Applied by this Jurisdiction in 1976.

_____ tobacco _____ peanuts

4. What Procedure was Used in Determining the Use-Values Applied in this Jurisdiction in 1976?

5. If the Use-Values Applied in 1975 Differs from those Published and Suggested by SLEAC, Then Why do they Differ?

6. Were the Use-Values Applied in this Jurisdiction Uniformly Applied to all Qualifying Parcels? Yes___ No___. If no, what is the Basis for Making the Variation?
7. In administering the Use-Value Program, is any Consideration Given to the Presence or Failure to Control Noxious Weeds on the Real Estate? Yes_____ No_____.
8. Has a Soil Survey Been Completed for this Jurisdiction?
9. What Procedure was used to Determine the Acreage of Land in each Soil Conservation Service Capability Classification for the Parcels for which Application was made for Use-Value Taxation?
10. What Procedure is used to Determine the Filing Fee to be Paid when making an Application for Use-Value Taxation in this Jurisdiction?
11. How often is Revalidation of the Use-Value Applications Required in this Jurisdiction?
12. Is there a Fee for Revalidation? If so, what is the Fee?
13. On What Quantity of Land Qualifying for Use-Value Taxation has the Roll-Back Tax been Administered?
 - a. Total Acreage
 - b. Number of Parcels
 - c. Dollar-Value of Roll-Back Tax Collected

14. On what Quantity of Land have Penalties been Collected, due to: No Notification of Change in Use
 - a. total Acreage
 - b. Number of Parcels
 - c. Dollars Collecteddue to: Misstatement of Fact in Application
 - a. total Acreage
 - b. Number of Parcels
 - c. Dollars Collected
 15. What Acreage is Assigned as Lot Size for a House on a Parcel Receiving Use-Value Taxation?
- D.
1. What Percentage of the Parcels for Which Application for Use-Value Taxation is Made are Visited in the Field?
 2. Are any Other Checks Made on the Property? What?
 3. Approximately how many Man-Hours are Spent Administering the Use-Value Taxation Program in this Jurisdiction?
 4. Approximately what is the Cost of Administration?
Personnel Costs _____ Other _____
 5. Does this Jurisdiction have the Fair Market Value and Use-Value of Qualified Parcels Entered on the Same Page of the Land Book? Yes ___ No ___. If not, where is each Located?
 6. Does this Jurisdiction have any Problems in Administering the Roll-Back Tax Due on Land Changed to a Non-Qualified Use?

7. Does this Jurisdiction have any Qualifying Parcels that are Being Developed, in part, as the Roll-Back Tax is Being Paid
8. If a Parcel in Your Jurisdiction Were Under Use-Value Taxation and the Owner Petitioned for a Zoning Change to a Higher Use, Would this Remove his Land from Use-Value Taxation? Yes_____ No_____
9. Are there any Cases in your Jurisdiction in Which the Use-Value Valuation of a Parcel Exceeds its Market Value Valuation? Explain.
10. Are there any Particular Problems in Administering Use-Value Taxation that you find Especially Difficult? Describe.
11. What Effect on the Ultimate Use of Land Does Use-Value Taxation Have?
12. What Trends do you Expect in the Amount of Land in the Use-Value Taxation Program?

FOR THE INTERVIEWER

Did you obtain:

Copies of Roll-Back and Revalidation Forms

County Map, with Parcel Location Outlined (Where Available)

A Copy of a Page from the Land Book

Inquire about Making an Analysis of Data Available on Qualifying Parcels

Cost Data for Each Year in Taxes Deferred, in Total and for Each Use

Comments:

APPENDIX B

THE OCCURRENCE OF USE-VALUE ASSESSMENTS IN
EXCESS OF MARKET VALUE ASSESSMENTS

APPENDIX B

THE OCCURRENCE OF USE-VALUE ASSESSMENTS IN
EXCESS OF MARKET VALUE ASSESSMENTS

In a 1973 study by Barron and Thomson, on the impacts of use-value taxation in Washington State, it was discovered that certain parcels had a use-value assessment in excess of the fair-market value assessment.¹ The following statement was made on this situation.

"Theoretically, it is feasible to equate the current use and the highest and best use-value; but under no circumstances is it logically possible to value land in its current use at a higher value than the land is valued in its highest and best use-value. Yet, some counties have valued participating land above the highest and best use valuation that appears on the tax rolls. Whether these errors are clerical or intentional would be nearly impossible to determine. Regardless, such discrepancies do exist and are difficult to defend."²

One of the questions on the survey used for this study sought to determine whether any of these cases existed in Virginia. The results are shown in Table 15.

¹James C. Barron and James W. Thomson, "Impacts of Open Space Taxation in Washington," Washington Agricultural Experiment Station, Washington State University, 1973.

²Ibid., p. 14.

Whereas Barron and Thomson found a few exceptions occurring in which use-value assessments exceeded fair market value assessments, this apparently unusual situation appeared regularly throughout Virginia. Table 15 indicates that 13 localities presently have parcels for which the use-value assessment exceeds the market value assessment. Three more localities indicated that this had occurred in the past but had since been changed. Of special interest is Cumberland County where every qualifying parcel has a use-value assessment in excess of its fair market value assessment and therefore no one has applied for the program. Barron and Thomson point out that theoretically the use-value valuation may equal the market value assessment, but under no circumstances should the use-value valuation exceed the market value valuation. The widespread occurrence of this situation in Virginia indicates an imbalance in the relation of these assessments; the reasons for this imbalance are not readily discernible, but several possibilities exist. Obviously, for this situation to exist, either the use-value assessments are too high or the market value assessments are too low, or both. First, let us consider these possibilities separately, beginning with excessive use-value assessments.

The use-value assessments could be too high due to at least two factors (assuming no clerical errors exist). Either the values used in the valuation are too high, or the productive capabilities of the land are overestimated. The first case would indicate an error in the method used to determine use-values, (such as too low a discount rate in the capitalization of future income). It is also possible

that certain costs of production were overlooked, or estimates of revenue were too high. The second case could easily occur in a locality where soil surveys were not available. If soil surveys are in use, this possibility should not be the cause of the imbalance.

At least three factors could cause market values to be too low (once again assuming away the possibility of clerical errors). Low market value assessments could occur due to de facto preferential assessments, the failure of an old assessment to reflect increases in land values, or the possibility that the assessor over-compensated for factors lowering market-values when the assessment took place. De facto preferential assessments have been documented in other states. If de facto preferential assessments were occurring in Virginia, then market value assessments would be expected to be low. If this were the cause of the low fair market valuation, then Amendment 58-760 passed in 1975 by the Virginia General Assembly may be expected to correct this imbalance. This amendment provides for the reassessment of all real estate at 100 percent of its fair market value. If de facto preferential assessment were in existence previously, it should be abolished by this amendment and the imbalance of use-value assessments and fair-market value assessments would be corrected.

The possibility of needing reassessment to account for increased land values is also a real possibility. Officials in both Fauquier and Prince William Counties attributed past or existing imbalances in the relation of these assessments to either low appraisals (Fauquier) or the need for reassessment (Prince William). If this

were the case, it should be corrected once the next reassessments take effect.

The possibility of an assessor over-compensating for factors lowering market values is also quite likely. When assessments are made, the location and other attributes of the land are usually taken into consideration. If an assessor over-compensated for the lack of access or other attributes, then the market values may be too low. This could be the case as is shown by consistently low assessments for one type of land. For example, most of the parcels having use-value assessments in excess of market value assessments had common attributes, such as the Dismal Swamp lands in Chesapeake City, or the land with poor access in Roanoke County. These instances indicate reassessments may be required where use-value assessments exceed market-value assessments.

There seems to be no general concensus among administrators as to whether use-values are too high, or market values too low. The administrators in Hanover County and Virginia Beach City justify the implementation of their values rather than SLEAC values with the argument that the SLEAC suggested values were too high. With the implementation of the values presently used, these imbalances are not evident.

Most of the administrators questioned, however, seemed to think market value assessments were too low. If this is the case, many of the market values will be raised above use-value assessments with the next reassessment.

Whether this imbalance is due to use-value assessments being too high or market value assessments being too low, it does signify that the program is not being administered as it was theoretically designed to be implemented. For this reason, further consideration of this peculiarity is called for. Much about the administration of the use-value taxation program in Virginia could be learned by determining why these imbalances are observed and if these factors influence all parcels in the program, but are only evident for these few.

VITA

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James A. Mize Jr.

ABSTRACT

In 1973, a Virginia statute providing for special assessment of agricultural, horticultural, forest, and open-space lands went into effect. The purpose of this statute was to slow the conversion of agricultural lands to non-agricultural uses and to provide tax equity for farmers. Four localities approved use-value assessment ordinances for 1973; by 1976, twenty-two localities had approved use-value assessment ordinances. This rising participation in the land-use taxation program accompanies a rise in the costs of the program. Tax revenues foregone due to special assessment have significant impacts on the local tax bases. Since participation and costs are already significant, and likely to increase, evaluation of the program is warranted.

The objectives of this thesis are to explain the process of administering use-value taxation, to determine the practices currently employed in administering use-value taxation at the local level, and to identify those applications of the law that deviate from the legislative intent. A model of the decision process at the local level is utilized in meeting with this first objective. This model depicts the flow of information to the local decision-maker, and incorporates the influences affecting the decision, based on the theory of William Niskanen and Herbert Simon. In meeting with the second objective, a survey was conducted with the cooperation of the Commissioners of the Revenue, Real Estate Assessors, and Treasurers of the localities

having use-value taxation in effect for 1976. The third objective, the identification of applications of the law which deviate from the legislative intent, involved the use of the decision model to identify potential misapplications of the law, and the analysis of the survey data to identify existing misapplications.

In conclusion, the analysis suggests that participation in the program and costs of administering the program are substantial and increasing, and misapplications of the law are known to occur. In consideration of these conclusions, further research is justifiable in determining the relation of use-value taxation with other land-use controls, and in obtaining more information about the use-value taxation program within given localities.