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ECONOMICS OF LAND USE PLANNING: A CASE STUDY OF  
ANNEXATION IN HEBER VALLEY, UTAH

by

Lyle C. Summers

A thesis submitted in partial fulfillment  
of the requirements for the degree

of

MASTER OF SCIENCE

in

Agricultural Economics

UTAH STATE UNIVERSITY  
Logan, Utah

1975

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Lyle C. Summers

TABLE OF CONTENTS

|  | Page |
|--|------|
| ACKNOWLEDGMENTS . . . . .  | ii   |
| LIST OF TABLES . . . . .   | iv   |
| LIST OF FIGURES . . . . .  | v    |
| ABSTRACT . . . . .   | vi   |
| INTRODUCTION . . . . .   | 1    |
| OBJECTIVES . . . . .   | 2    |
| ANNEXATION: A LAND USE PLANNING PROBLEM . . . . .  | 4    |
| REVIEW OF ANNEXATION LITERATURE . . . . .  | 6    |
| REVIEW OF PLANNING THEORY AND METHODOLOGY . . . . .  | 8    |
| HISTORICAL ASPECTS OF LAND USE PLANNING . . . . .  | 23   |
| Introduction . . . . .   | 23   |
| An overview . . . . .  | 24   |
| Land use policy to 1900 . . . . .  | 25   |
| 1900 to World War II . . . . .   | 27   |
| World War II to 1973 . . . . .   | 33   |
| Historical and present relationships of federal<br>agencies to land use planning . . . . . | 39   |
| Land use planning in Utah's history . . . . .  | 46   |
| DISCUSSION OF BENEFIT-COST ANALYSIS . . . . .  | 53   |
| Benefits . . . . .   | 53   |
| Pecuniary external economies . . . . .   | 54   |
| Technological external economies . . . . .   | 55   |
| Induced benefits . . . . .   | 55   |
| Costs . . . . .  | 55   |
| Discounting . . . . .  | 56   |
| A MODEL FOR ANALYZING AN ANNEXATION PROBLEM . . . . .                                      | 59   |
| Present laws governing annexation proceedings . . . . .                                    | 61   |
| Arguments for annexation . . . . .   | 63   |
| Arguments against annexation . . . . .   | 64   |
| Methodology . . . . .  | 64   |

|  | Page |
|--|------|
| The setting . . . . .                                      | 67   |
| Explanation of tables . . . . .                            | 68   |
| Assumptions of the study . . . . .                         | 71   |
| Results of annexation study . . . . .                      | 73   |
| SUMMARY . . . . .  | 84   |
| CONCLUSIONS . . . . .                                      | 86   |
| BIBLIOGRAPHY . . . . .                                     | 89   |
| APPENDIX - CURRENT ANNEXATION PROCEDURES IN UTAH . . . . . | 92   |

## LIST OF TABLES

| Table  | Page |
|--|------|
| 1. Land use pattern-1894 . . . . .                           | 49   |
| 2. Average annual effects of annexation . . . . .            | 75   |
| Explanations of table 2 . . . . .                            | 77   |
| 3. Induced effects of annexation on the private sector . . . | 79   |
| 4. A - Annexors budget summary - expenditures . . . . .      | 80   |
| B - Annexors budget summary - revenue . . . . .              | 81   |
| 5. Present resident and commercial cost for annexees . . . . | 82   |

LIST OF FIGURES

| Figure  | Page |
|---|------|
| 1. Planning diagram - Water Resource Council . . . . .  | 14   |
| 2. County demonstration model . . . . .   | 15   |
| 3. Production possibility curve - beef vs wheat . . . . .                                     | 18   |
| 4. Production possibility curve - environmental quality<br>vs economic development . . . . .  | 20   |
| 5. Conceptual model for decision making systems at the<br>local level of government . . . . . | 60   |
| 6. Conceptual model for analyzing the annexation<br>alternative . . . . .                     | 62   |

## ABSTRACT

Economics of Land Use Planning: A Case Study of  
Annexation in Heber Valley, Utah

by

Lyle C. Summers, Master of Science  
Utah State University, 1974

Major Professor: Herbert H. Fullerton  
Department: Agricultural Economics

Some theories and methodologies applicable to land use planning problems were reviewed along with the history of land use and land use legislation in the United States and Utah. This review served to point out that federal land use policy is moving away from the incentive approach to controlling land use and toward a more mandatory approach aimed at giving increased emphasis to environmental quality and less to economic efficiency.

A model for conceptualizing and analyzing annexation problems was developed and applied to a problem in Heber City, Wasatch County, Utah. The analysis demonstrated that annexation is feasible by showing net beneficial effects for the macro area. The model displays the analytical data in a way that enables planners and decision makers to see who gains, who loses, and the approximate amounts of the gains and losses. Thus the decision makers are able to determine who must be compensated and by how much in order to accomplish an improvement in welfare under the Pareto criteria.

(104 pages)



## INTRODUCTION

During the past two decades, increasing emphasis has been placed on the need for planning for the future use of our natural resources. This increased emphasis arises from the pressures that have developed in our society as a result of increasing amounts of leisure time and family incomes. As more and more people reach the degree of affluence whereby they can realize more of their material goals and aspirations, the use of our natural resources endowment increases. With this pressure has come a social awareness of the importance of our resource base and a need to plan for its future utilization or preservation. The proliferation of comprehensive planning that has been undertaken by every level of government in recent years is evidence of this awareness and has given birth to a technical specialization called land use planning. One of the apparent short-comings of contemporary land use planning is that, in most cases, it is devoid of, or seriously lacking in economic analysis. Several analytical tools have been developed by economists which are applicable to land use planning and could be useful in many planning situations. This thesis will demonstrate one of these tools--benefit/cost analysis by applying it to a current land use planning problem.

The key to the implementation of a successful land use planning policy is for the proponents of the policy to convey to their publics an understanding of property rights along with an analytical process for identifying the effects of changes incident to planning, and the extent of those effects. Only through understanding of constitutional

property concepts, articulation of beneficial and adverse effects, the identification of affected parties, and communication to the concerned public of these effects, can government, civic, and special interest leaders hope to determine feasibility and achieve acceptance of proposed change.

We must involve the American people in setting goals and priorities by providing accurate, credible data on the long range choices open to them, making possible much better informed public discussion about using the resources we will have in meeting the needs of the future.<sup>1</sup>

The analysis on an annexation question provides a convenient opportunity to demonstrate the validity of the above assertion. An annexation question in Heber City, Wasatch County, Utah was chosen as the subject of this analysis for two reasons: 1) it is a relatively small municipality where many of the problems pertaining to annexation questions are present thus simplifying the data gathering problem; and 2) the electorate is divided on the issue which indicates a high degree of uncertainty concerning the economic effects of the annexation.

#### Objectives

1. To review contemporary land use planning theory and methodology.
2. To explore the legislative history of public land policy as it has developed in the United States.
3. To develop and demonstrate a model for analyzing an intra-county land annexation.

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<sup>1</sup>U.S. Congress, Senate. Economic Report of the President, Washington, D.C., February 1970, p. 1.

A study of current planning theory and methodology, along with a review of legislative history of public land policy will help to put contemporary land use planning legislation into perspective and possibly provide a glimpse of the direction that future policy will take.

Questions to be addressed within the analytical model are: is annexation a feasible alternative solution to the financial dilemma of Heber City? Is annexation in the best economic interest of Wasatch County as a whole? Who will gain, who will lose, and what will be the extent of the gains and losses if the annexation is accomplished?

## ANNEXATION: A LAND USE PLANNING PROBLEM

Annexation is a land use planning problem in that it determines which sub-state unit of government is responsible for planning in the annex area. If the hypothesis is accepted that the unit of government best able to do objective land use planning is that governmental unit furthest removed from local, special interest pressure groups;<sup>2</sup> then many annexation proposals should be denied. The reason is that if a portion of unincorporated county land is annexed by a municipality, planning responsibility moves closer to local groups and the resultant planning will become less objective and more subjected to local pressure. The counter-hypothesis would argue that decisions such as those made subsequent to land use planning are rightfully made at the very level that is closest to local pressure group influence, thus being representative of grass roots opinion.

Economic analysis of an annexation problem can help to answer three questions, the first of which is: which unit of local government should have planning responsibility in the annex area? It answers this question by revealing what effect the annexation will have on the economic structure of the location units involved, thus aiding planners in ascertaining its desirability. The analysis can predict whether economic efficiency is served by the annexation proposal. If economic efficiency

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<sup>2</sup>Sub-state units of government can be stratified according to distance from influence exerted by local pressure groups: (in descending order) multi-county planning regions, metropolitan councils of govt., resource conservation districts, city govt., county service areas, special improvement districts.

is the criteria for determining who should exercise planning authority over the study area, then annexation should be approved if net benefits exist for the macro area. If net adverse effects result, then planning and other functions of government should remain with county government.

The second question addressed by the analysis is: who will be supporters of the proposal and who will be opposed to it? The net effect calculated for the macro area indicates whether or not an improvement in economic welfare is likely to result from the annexation. Net effects calculated for each separate group within the county area reveals to planners who gains from the proposed annexation and who loses. If the analysis is completed during the preliminary stages of the proceedings, planners will be warned in advance who is likely to be in opposition to the proposal. In addition, the analysis provides valid estimates of what compensation can be paid to overcome this opposition.

The third question answered by economic analysis is: where should annex boundaries be located? The analyst can determine the effects of changing the boundaries of the proposal to either include or exclude certain economic activity; or if the effects of all the alternative annexation proposals are negative or unsatisfactory for any reason, the planners and analysts can turn their attention to the study of other methods of reaching stated goals.

## REVIEW OF ANNEXATION LITERATURE

Some research on annexation has been carried out at the University of North Carolina by their Institute of Government and has been given the name: Revenue Cost Analysis.<sup>3</sup> A principle source of applied research is that done by Mary Jones, senior planner for the city of Boulder, Colorado.<sup>4</sup> This research has looked at the annexation problem and the analysis from the accountant's point of view and as a consequence is quite narrow in its perspective. Whereas the accountant attempts to analyze the problem in terms of costs and revenues to a particular governmental unit, the economist attempts to measure all of the consequences of a change in circumstances and relate these consequences to whomever they occur. In the research referred to above, none of the capital costs associated with development of the annex area were accounted for because these costs were paid by the developers and passed on to the final buyer. In the Boulder study only those costs that were paid out of the general fund were considered. This approach may be adequate when the welfare of the city and its government is the only relevant consideration. However, to determine the economic impact of the annexation on the entire area, in this case the county, the "Revenue-Cost" analysis is inadequate. Traditional benefit-cost analysis which

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<sup>3</sup>University of North Carolina, Institute of Government, Municipal Cost Revenue Research in the United States; Chapel Hill, 1961.

<sup>4</sup>Boulder City Planning Office, Annexation: Cost and Revenue, Boulder, Colorado, 1965.

has been used for over 30 years to determine feasibility of government projects can, with minor modifications, be made to serve this purpose in a most adequate manner.

One problem that seems to appear quite often in prior studies is: if annexation of county territory results in an immediate diminution of the county's revenues, should the city be required to compensate the county for this loss? Or can the annexation petition be denied for this reason? Bain points out that in Virginia the courts haven't compelled the city to make a direct payment to the county for loss of revenue nor have they considered this a valid reason to deny annexation.<sup>5</sup> However, when the county has been forced to turn over a sizeable improvement to the city as a result of annexation, the courts have required fair compensation be paid and the indebtedness for improvements assumed by the city.

With regard to the question of requiring the city to pay a compensation to the county for loss of tax revenue, it is interesting to note that in the Virginia study the courts took the position, in some cases, that annexation stimulated growth in the fringe areas. The court contended further that this development would eventually restore to the county the tax base values that are lost by annexation.

In the case of compensation for capital improvements constructed by the county in annexed areas, the Virginia study indicates that the practice of relating the debt assumed to the assessed value of property transferred to the city appears to be as equitable a formula as is available.

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<sup>5</sup>Bain, Chester, Annexation in Virginia, New York: McGraw-Hill, 1964.

## REVIEW OF PLANNING THEORY AND METHODOLOGY

Land use planning means many things to many people. To the physical scientist or natural resource professional it is the placing of activities where they will be compatible with the resources and ecosystems with which they co-exist. To the social scientist, land use planning means placing of activities so as to provide society with maximum individual satisfaction and utility. While the natural scientist concerns himself with the effect of land use change upon the physical environment, the social scientist attempts to analyze the effects of land use change on people and their institutions. To narrow the discussion down to what one group of social scientist-economists have to say about the subject, it is helpful to quote two of the more prominent ones as to what economics is. According to Samuelson:

Economics is a study of how men and society choose with or without the use of money to employ scarce productive resources to produce various commodities over time and distribute them for consumption, now and in the future, among various people and groups in society.<sup>6</sup>

Hoover defines Regional Economics as the study of:

"What is where, and why--and so what?"<sup>7</sup>

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<sup>6</sup>Samuelson, Paul A., Economics - An Introductory Analysis, 6th ed., New York: McGraw-Hill, 1964, p. 4.

<sup>7</sup>Hoover, Edgar M., An Introduction to Regional Economics, New York: Alfred A. Knopf, 1971, p. 3.



This definition could, if given broader application than Hoover intended, apply to the economics of national land use policy. In the regional context, according to Hoover, the "What" refers to every type of economic activity--factories, farms, mines, households, and public and private institutions. "Where" refers to location in relation to other economic activity. The "why" and "so what" refer to interpretations made by the economist, "the extent of which depends upon his courage and competence." Expanding this definition to the economics of national land use policy, "what" would include reclamation projects of the Bureau of Reclamation and other federally authorized projects such as those funded under P.L. 566. "Where" projects are to be undertaken would be determined through the process of ranking benefit-cost ratios and choosing for approval only those projects that rank as number one wherever they may be located.<sup>8</sup> "Why" one project is selected over another must be answered within the respective benefit-cost analyses. The "what", where, and why of urban renewal projects could be analyzed in much the same way.

Hoover's definition, with some modification, could also be applied to the economics of local land use planning. At this level however, the "where" must be given because of geographical location, and what refers to what activities will be allowed to occur. The activities in question could range from recreation or industrial development to rapid transit or enactment of an ordinance to annex adjoining real estate.

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<sup>8</sup>This may seem to imply that economic analysis is capable of determining which projects "should" receive authorization. Economic analysis is only capable of determining which projects contribute most to the economic goals of the planning unit.

Why one course of action is chosen over another continues to be a legitimate internal concern of the analysis of alternatives.

In addition we must throw in the question "how much"? meaning, if an activity is allowed, how much is enough and how can it be controlled?

McHarg considers land use planning as a problem of achieving a balance between supply and demand in terms of the natural resources of the planning area.<sup>9</sup> If population trends indicate a significant increase in demand, i.e., the number of people that will inhabit a particular region at some future point in time, the objective of land use planning becomes one of finding a way to use the supply of available resources in a manner which will accommodate the increased population. Since the physical supply of resources, such as land, available to support a population is, in the local sense, finite, but the demand for that resource is potentially infinite, it is imperative that each unit of the fixed resource be utilized in the most efficient way possible. Equity considerations must also be taken into account because in many transactions involving government policy, there are losers as well as gainers. It becomes necessary therefore, to find out who loses and who gains when a new policy is formulated or a new course of action is being decided upon. It is also necessary to determine the extent of the gains and losses so that a determination can be made as to whether or not an improvement in welfare has come

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<sup>9</sup>McHarg, Ian L., Design With Nature. Garden City, N.Y.: Natural History Press, 1967.

about and to determine the amount of compensation to be paid the losers.<sup>10</sup>

According to Clawson, two themes have dominated land use history in the United States: 1) development; and 2) interplay of public and private interests in land.<sup>11</sup> Contemporary land use planning owes its present popularity to a felt need, on the part of a sizable portion of our society, to control development, defined by Clawson as:

every effort or action to transform nature--  
into uses for the service of man .

Contemporary land use planning owes most of its present frustrations and problems to Clawson's second theme. This interplay of public and private interest in land implies a concept of property and the existence of property rights. The concept and constitutionality of property rights are, to some extent, taken for granted by most laymen without a clear understanding of where the authority, rights, and responsibility associated with them are laid by the constitution. Wunderlich illuminates the nature of property and property rights as follows:

The hierarchy of authority in property begins and in a democracy ends, with eminent domain. The ultimate power of the sovereign reduces to its ability to survive, and no bundle of rights to a person or local government can be so complete and permanent as to challenge sovereign survival. The constitutional measures for protecting property

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<sup>10</sup>Arrow, Kenneth J., Social Choice and Individual Values, New York: J. Wiley & Sons, 1950.

<sup>11</sup>Clawson, Marion D., Man and Land in the U.S., Lincoln: University of Nebraska Press, 1964.

rights of the individual, of course, limit the exercise of sovereignty by due process. In practice, then, ownership may be complete except as against an established public interest coupled with compensation. Questions arise in the specifics. Can property rights be taken without an explicit transfer of rights? Can rights be diminished in value, yet left intact, without paying compensation? What is the public interest for which property may be taken? If compensation must be paid for property taken, why is compensation not collected for property conferred? A private property system subject to eminent domain, implies some total bundle of rights which can be transferred, withdrawn, held in reserve, and combined in a nearly infinite variety.<sup>12</sup>

Also implied in Clawson's second theme is the problem of externalities, defined by Turvey as:

the impacts of the activities of households, public agencies, or enterprises upon the activities of other households, public agencies or enterprises which are exerted otherwise than through the market. They are--relationships other than those between buyer and seller.<sup>13</sup>

The question arises then of whether planning can improve allocation of resources over that allocation brought about by the market; or can the market be made, through legal and fiscal manipulation, to internalize the externalities and still serve as the guiding force toward an acceptable environment?<sup>14</sup>

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<sup>12</sup>Wunderlich, Gene. Perspectives of Property: An Introduction. University Park: Penn State University Press, 1972, p. 7.

<sup>13</sup>Turvey, Ralph, Side Effects of Resource Use, in Environmental Quality in a Growing Economy, (ed.) Henry Jarrett, Balt.:John Hopkins, 1966, p. 47.

<sup>14</sup>See Alan Randall, Welfare Efficiency and the Distribution of Rights, in Perspectives of Property, op. cited.

What affect does land use planning legislation have on the efficiency of resource allocation when looked at under the light of total environmental considerations? Questions such as this have been almost totally ignored in land use planning circles. Emphasis has been placed instead on natural resources inventories and evaluations, and environmental and ecological relationships. Ways and means of turning to government agencies the responsibility for insuring that human behavior is compatible with these physical elements has become the primary objective of land use planning.

Government agencies (Water Resource Council) and academic theorists (mostly landscape architects) have developed several planning models which are designed to guide practitioners through the planning process in a manner that is hoped to be both efficient and workable. The WRC's planning methodology implies market consideration by specifying that future conditions be assessed as they may occur in the absence of any plan or project,<sup>15</sup> based on OBERS assumptions and projections (see fig. 1). Models from the academic fraternity<sup>16</sup> (see fig. 2) include a socioeconomic model which also implies consideration of the market mechanism. The amount of market analysis going into the socioeconomic model is an unknown at this point.

Several theories from Welfare Economics are applicable to the conceptualization of land use planning principles and processes. One

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<sup>15</sup>U.S. Department of Agriculture, Soil Conservation Service, Principles and Standards for Planning Water and Related Land Resources. Washington, D.C., March 1974.

<sup>16</sup>Meyers, Charles R. Jr., New Tools for Regional Planning. AIA Journal, 56(1971).

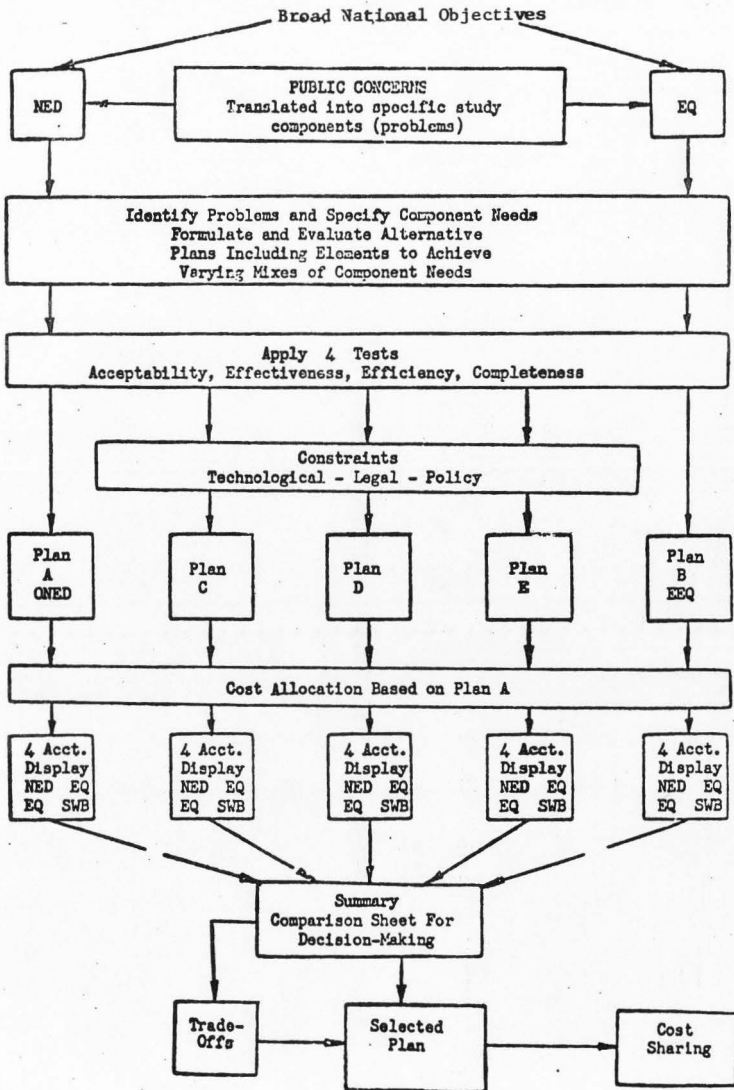


Figure 1. Planning diagram - Water Resources Council

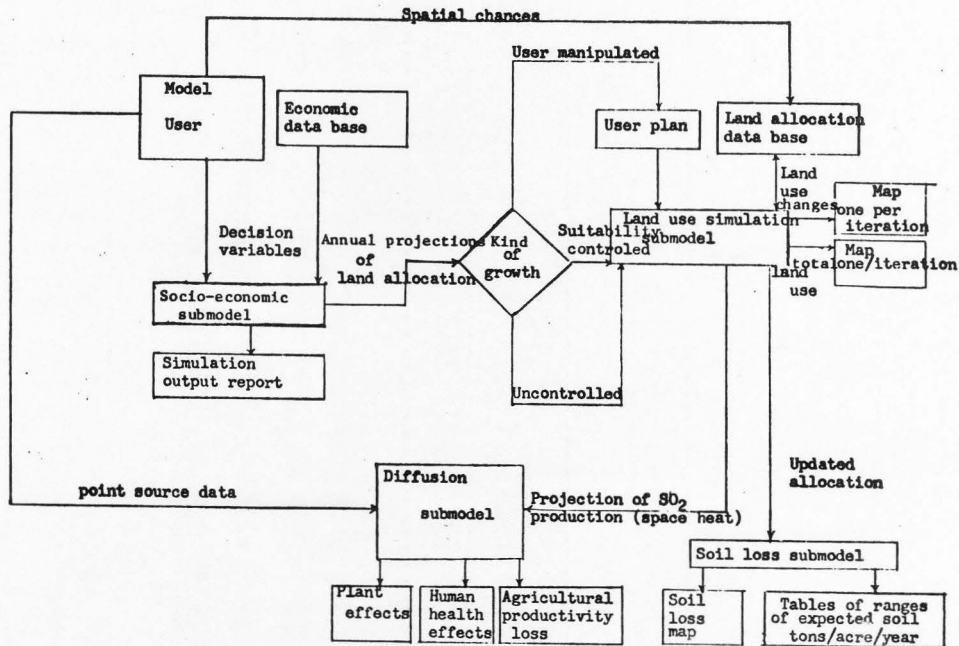


Figure 2. County Demonstration Model

of the most promising involves the Pareto criteria for an improvement in welfare, and says that a

Pareto optimum is a state where no(one) can be made better off without making someone worse off. <sup>17</sup>

This is to say that in order to create an unambiguous improvement in aggregate social welfare, it must be shown that at least one person is made better off without making anyone worse off. An explicit assumption of the principle is that interpersonal comparisons of utilities are not valid. In other words we cannot say that an item of value (say a dollar) creates greater utility when in the hands of a poor man than when in the hands of a rich man. How does this principle of welfare improvement apply to land use planning problems? If land use policy incorporated this principle to insure that land use changes be judged according to criteria imposed by it, then all external diseconomies or negative externalities would have to be internalized to beneficiaries before a land use change could be approved. An example involves a situation which is becoming quite common in Utah, that of allowing recreation development of mountainlands. To be specific consider a small watershed where much of the mountain range land is privately owned and is being purchased by developers who plan to build summer homes and develop complementary recreation facilities. Assume further that an investigation of the relevant soils and hydrology data show that the planned development will create an externality, i.e., pollution of the underground water supply serving residents of lower

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<sup>17</sup>Debreu, Gerard, "Valuation Equilibrium and Pareto Optimum". Proceedings of National Academy of Science, 40 (1954), pp. 588-599.



elevation areas in the watershed. Should this development be approved? Under the Pareto criteria it would not be approved because someone would be made worse off.

How will developers behave when this criteria is imposed on them? If they know that the development will not be allowed as long as the negative externality exists, they will attempt to remove the externality factor (pollution) either by on-site treatment of the pollutants or some other measure. This will increase the cost of development. If costs are increased to the point that the development is infeasible, development will not occur and there is no externality effect on the nearby community. If the development is still feasible, the developer will pay the cost of overcoming the externality and pass it on to the subsequent purchaser of the property, who will now have to pay the full cost of his investment. If a situation exists where the recreation development promises to generate considerable net economic benefits to the community affected by the pollution, then the problem is to determine to what extent the community can afford to subsidize the developers in helping them eliminate the externality. If the pollution can be eliminated without making the development project infeasible and without destroying all net benefits to the community then an improvement in welfare would be achieved by approval. This argument presupposes that all relevant economic, ecological and biological factors have been adequately evaluated and decisions made in the light thereof.

Another method for conceptualizing the land use planning problem is to borrow a model developed by production economists and used

extensively in the field of agricultural economics. This model is designed to demonstrate the relationship between two products.<sup>18</sup>

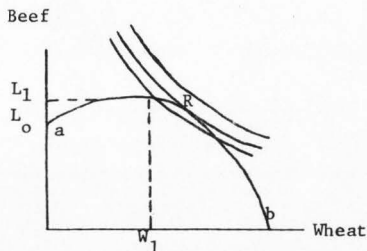


Figure 3. Production possibility curve - beef vs. wheat

The curve  $ab$  in figure 3 represents the quantity of two products that can be produced using whatever scarce resources a farmer has control over. In its traditional application to an agricultural problem, the curve shows that in the range of wheat production designated  $0-W_1$ , a complementary relationship exists. In other words, a farmer can produce  $W_1$  units of wheat while increasing livestock production by  $L_0--L_1$ . To produce more wheat means that he must take resources away from the production of livestock and the relationship between the two products becomes competitive. The decision maker must decide at what point on the curve he should produce to maximize his profits. By superimposing iso-revenue curves on the product-product curve in

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<sup>18</sup>Hedges, T.R., Farm Management Decisions. Englewood Cliffs, N.J.: Prentice Hall, 1963.

figure 3, this question is answered. The iso-revenue line shows all combinations of outputs of the two products that result in a given total revenue.<sup>19</sup> There is a different iso-revenue line for each total revenue value but the slope of all are the same and equal to the negative of the price of beef divided by the price of wheat. The optimum point of production occurs where an iso-revenue line is tangent to the product-product curve (Point R).

Using the same basic model, (see figure 4) it is possible to subject land use planning problems to the same type of analysis. Using the most general problem situation as an example, suppose an inventory of all society's resources was undertaken and it was determined that if all resources were committed to producing economic development,  $O-ED_1$  development could occur. On the other hand, if all resources were committed to enhancement of environmental quality then  $O-EQ_1$  environmental quality could be achieved. If the relationship between the two is as depicted in figure 4, at  $ED_0$  of economic development, environmental quality would be at its highest possible level- $EQ_2$ . Following the analogy to the farm situation, the next stop for the land use planners and decision makers is to find out where society's iso-satisfaction (social welfare function<sup>20</sup>) curve touches the EQ-ED (product-product) curve. At this point, society's desires, as portrayed by the social welfare function is in harmony with its resource base and maximum satisfaction

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<sup>19</sup>Mansfield, Edwin. Microeconomics. New York: Norton & Co., 1970.

<sup>20</sup>Arrow, K.J., "A Difficulty in the Concept of Social Welfare", Journal of Political Economy, (58) 1950, 328-346.

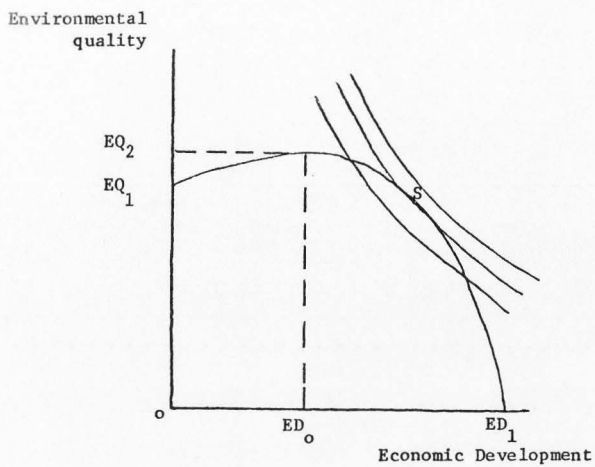


Figure 4. Production possibility curve - environmental quality vs economic development

reigns. Although Arrow shows the impossibility of quantifying the social welfare function, in practice it is being approximated by decision makers at all levels of government. Heber Valley in Wasatch County, Utah provides a small scale example. Here an expensive resource inventory and evaluation was undertaken to determine the availability and capability of the valley's physical resources. If the decision makers and planners who were involved had developed the model as explained above, they would have analyzed the resource inventory and evaluation to determine what level of environmental quality could be achieved if all resources were committed to this objective and what amount of economic development could be achieved if all resources were committed to the economic development objective. This would set the limits for the model--EQ<sub>1</sub> and ED<sub>1</sub>. By analyzing the community's resources to determine the marginal rate of transformation<sup>21</sup> of environmental quality for economic development, the product-product curve would be derived. The social welfare function (or iso-satisfaction curve) in the Heber Valley problem was approximated by the process of citizen involvement in articulating community "purposes for planning".<sup>22</sup> The comprehensive plan for Wasatch County, inasmuch as it expresses the real desire of the community, approximates the social welfare function. If it were to successfully bring together the availability and capability of the resource base with the social

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<sup>21</sup>Mansfield, op. cited

<sup>22</sup>Wasatch County Planning Commission, Comprehensive Plan for Wasatch County, Utah, 1973-1993. Heber City, Utah 1973.

welfare function, it would have made a valid effort at finding point S in the model, the point of social welfare maximization.

At the other end of the planning spectrum, the Water Resource Council is compiling resource data with which it hopes to put together a national resource inventory.<sup>23</sup> A possible outcome of this effort may be to enable the Council to do on a national scale what Heber Valley planners could have done on a small scale--derive an output-output function showing the possible combinations of environmental and economic development outputs that are attainable with the nations resources. The WRC is, in effect, attempting to discover and approximate a social welfare function within its Principles and Standards for Planning Water and Related Land Resources. The Federal Register, Volume 38 Number 174, Monday, September 10, 1973 states:

The overall purpose of water and land resource planning is to promote the quality of life by reflecting society's preference (the social welfare function) for attainment of the objectives listed below;

- A. To enhance national economic development by increasing the value of the nation's output of goods and services and improving national economic efficiency.
- B. To enhance the quality of the environment by the management, conservation, preservation, creation, restoration or improvement of the quality of certain natural and cultural resources and ecological systems.

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<sup>23</sup> Water Resource Council, Water Resource Regions and Subregions for the National Assessment of Water and Related Land Resources, Washington, D.C., July 1970, p. 24781.

## HISTORICAL ASPECTS OF LAND USE PLANNING

Introduction

Although there has been no formal national land use planning policy in the United States except for a brief period in the thirties, land use policy has developed with guidance from basic premises that reflect the values and principles of the people. In view of the fact that it was a quest for political, religious, and economic freedom that brought the first settlers to this continent from Europe, it is reasonable to assume that the land use policy of our early forefathers was guided by this same quest. Many present day critics of land use policy in this country have labeled it "piecemeal" in its approach to our land use problems. This criticism is justified to the extent that the present method of coping with land use problems is for the congress to react to specific problems with specific pieces of legislation. The critics believe that it would be better to set national goals and objectives to guide our land use policy. It is this concept of setting stated goals and determining how to best achieve them that separates land use policy from land use planning policy. Where land use policy is guided by premise and principle, land use planning policy is guided by goals and a comprehensive, step by step procedure for accomplishing these goals.

This section of the thesis will look at the historical aspects of United States land use policies and programs as they are described by

selected pieces of federal legislation, for the purpose of observing the effect which it has had on the land use planning activities of county, municipal, metropolitan and state governments. This historical study of legislation will also serve as an aid in predicting the direction which future federal land use planning legislation may take.

The discussion which follows begins with an overview of land use attitudes which have evolved during the course of our economic development, followed by an account of federal legislation which appears to have influenced the direction of land use planning in the United States. The third part of this section will deal with those federal agencies that are presently involved with the land use planning process, showing their legislative beginnings and the nature of their involvement and contribution. We will then leave the federal history of land use legislation and focus on land use legislation that has developed in the state of Utah since the early settlement of the Salt Lake Valley. The concluding part of this section will be devoted to a brief analysis of the land use act which was passed by the 1974 budget session of the Utah Legislature but defeated by referendum in the November 1974 General Election.

#### An overview

During the course of its development, the United States has experienced three distinctly different periods of land use attitudes. The first period began with Plymouth Rock and was characterized by an attitude of optimism and conquest wherein the immense magnitude of the resource base fostered the perception that resources were



indestructible and inexhaustible. As populations grew and frontiers were pushed back, the first period gave way to the second. This period, which began in the late 1800s was characterized by apprehension and a growing concern for resource conservation. A technology explosion, fostered by the American emphasis on education and free enterprise ushered in the third period of land use change. Whereas the Jeffersonian concept of universal family farms (first period) had prompted the formation of an agrarian society, the ensuing industrial revolution (second period) with its tremendous effect on agricultural production, effectively freed millions of workers from the need to produce their own food. This started the trend toward urbanization (third period). As the plentiful food supply increased, man's ingenuity allowed him to lower still further the environmental resistance that had tended to keep his numbers in check by developing better medical service, better housing, and better health facilities. Development pressure on the nation's resource base, arising from increased numbers and affluence began to mount.

These pressures found expression in the land use planning movement which took root during the late 1800s, withered during the 1940s because of our preoccupation with war, and blossomed profusely during the 50s, 60s, and early 70s.

#### Land use policy in America to 1900

Land use policy in the United States has, to a great extent, been influenced and pronounced by legislation wherein the congress intended to accomplish the task of providing for orderly development

of our land resources. The basic premise which guided the early legislative actions was: private action without public interference would assure that 1) the land would be used so as to supply the nation with adequate raw material which would be needed to develop and support a growing national economy; and 2) there would be nearly universal family farm ownership.<sup>25</sup>

This premise came under continuing attack beginning in about 1870 by some federal officials, scientific and technical organizations, and their publications. By 1891 the pressures exerted by these groups became great enough to require that congress bring about the first fundamental change in its land use policies. This was accomplished by the enactment of The Revision Act of 1891 which indicated a definite shift away from the "optimistic attitude". This act "provided the original basis for the allocation of some 150 million acres in the public domain as national forest reserves under Presidents Harrison, Cleveland, McKinley and Roosevelt".<sup>26</sup> Four years later Congress actually purchased private forest lands to increase the federal control over this important resource.

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<sup>25</sup>Salter, Leonard A. Jr., A Critical Review of Research in Land Economics. Madison: University of Wisconsin Press, 1967.

<sup>26</sup>Ibid.

1900 to World War II

The Reclamation Act of 1902 marked a basic change in the approach to land and irrigation development and spawned an entire era of public financing of water resource development projects.

In 1906 some coal deposits within the public domain were set aside. This policy, referred to as "withdrawal policy" was extended to include public lands that were rich in oil, potash, copper, phosphates, and other minerals. These policy measures were aimed at locking up the nation's "mineral storehouse" so as to guard it against too rapid and unwise exploitation.<sup>27</sup> Coupled with this was a series of measures allowing the regulated removal of the minerals under leases. An overall leasing policy was written into the General Mineral Land Leasing Act of 1920.<sup>28</sup>

As legislation enacted during the first few years of this second period reflected the cautious attitude of the Congress, other legislation enacted during this same period reflected this body's faith in the principle of private ownership. The KinKaid Act of 1904, the Enlarged Homestead Act of 1912 and the Stockraising Homestead Act of 1916 were all legislative enactments aimed at encouraging the establishment of small dryfarms and grazing homesteads. The Federal Farm Loan Act of 1916 which created the federal land bank system was another attempt at encouraging "operator ownership" of the nation's land. The stated

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<sup>27</sup>Salter, 1967.

<sup>28</sup>Ibid.

objective of this act was to promote farm ownership and to check tenancy. These rural credit reforms were tied to the crusade to conserve resources and were influenced by the Malthus Thesis on mass starvation. This influence was illustrated by the following statement by M. T. Herrick<sup>29</sup> "the work of replenishing impoverished soils, opening up new fields, and stimulating agriculture in all its branches cannot be long deferred, because the present rate of increase in the population is greater than the rate of increase in the means of subsistence, and this youngest among the nations of the earth is in danger of being unable to feed and cloth its people in spite of matchless natural resources. The farmers' debt may be expected to augment at a more rapid progression than in the past."

The Taylor Grazing Act of 1934 "provided for the control of the remaining public domain lands through the establishment of local grazing districts under the supervision of the Grazing Service of the Interior Department."<sup>30</sup>

An act of Congress in 1936 set up the Rural Electrification Administration which also helped to accelerate the private development of rural America.

The first land use conference, known as the 1931 National Land Utilization Conference, preceded the establishment in 1933 of the Soil Erosion Service which was established for the purpose of controlling

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<sup>29</sup> Salter, 1967.

<sup>30</sup> Ibid.

soil erosion on the nations public and private land. This agency became the Soil Conservation Service on April 27, 1935 and was given the responsibility of planning and carrying out a national program to conserve and develop the nation's soil and water resources. Also in 1933 a national planning board was created, which, in 1934, became the National Resources Board and was assigned the role of an over-all resources planning and coordinating office for the Federal Government. This board encouraged the establishment of similar planning boards on the state and local level. In 1935 the Resettlement Administration was formed which included in its organization a Land Utilization Division, and within this division was created a Land Use Planning Section which replaced the National Resources Board system of state land planning consultants. This staff of state land use planning specialists were charged with conducting general studies and planning activities in the field of Land utilization.<sup>31</sup> The Land Use Planning Section was an expansion of the old Division of Land Economics and included units for studying land values and land tenure as well as land classification and land settlement units. They possessed no enforcement authority. Other units of this early land use planning agency included: public finance, legislative analysis, directional measures and water utilization.

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<sup>31</sup> Salter, 1967.

The chief function of the Land Use Planning Section was to prepare maps showing areas where land was in uses that ought to be discontinued in favor of other uses and to make studies of such areas in order to settle upon a remedial program.<sup>32</sup>

Of particular interest to the Land Use Planning Section was the development of rural zoning which was taking place in Wisconsin at that time. The zoning of rural counties was undertaken in an attempt to control the movement of displaced farmers and unemployed urban people. Under a 1929 law, 25 Wisconsin counties passed zoning ordinances which limited farm settlement to restricted areas. This was the first time zoning had been applied to land areas other than in the cities and surrounding areas.<sup>33</sup>

The Bankhead-Jones Act of 1937 transferred the entire Land Utilization Division to the Bureau of Agricultural Economics. It directed the Secretary of Agriculture to develop a program of land conservation and land utilization to correct maladjustments in land use and thus assist in controlling soil erosion, mitigating floods, preventing impairment of dams and reservoirs, conserving moisture, protecting watersheds, and protecting the public lands, health, safety, and welfare. Also in that year the President sent letters to all state governors urging the passage of legislation to effect a soil conservation district program. In August 1937 the first district was organized. This move

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<sup>32</sup> Ibid.

<sup>33</sup> Wehrwein, George S. "Enactment and Administration of Rural County Zoning Ordinances", Journal of Farm Economics, 18(1936) 508-552.

resulted in the speeding up of the conservation program because it gave the major responsibility and initiative for conservation programs to land owners. The following year the operational part of the land program was assigned to the Soil Conservation Service and the land use planning staff was actually transferred into the Bureau of Agricultural Economics and was designated "The Division of Land Economics".

Another item of significance to the development of national land use planning occurred in 1938. This was an agreement between representatives of the land-grant colleges and the USDA which provided for "not only the broad planning of agricultural programs, but also the coordination of all the many public farm programs", through a national system of county and state committees on land use planning, composed of laymen, technicians, and administrators. In September 1938 the department issued a "County Land Use Planning Work Outline Number 1, Covering an Area Mapping and Classification Project Recommended for County Agricultural Land Use Planning Committees". In November the Secretary of Agriculture reorganized the department making the Bureau of Agricultural Economics the central planning staff of the department.<sup>34</sup> The county land use planning effort lasted until 1942 when budget cuts necessitated by the war forced its discontinuance.

It may be well at this point to digress somewhat to look at the goals and procedures employed in this landmark attempt at national land use planning. Gross gave a formalized definition of land use planning as it was being conducted during this period:<sup>35</sup>

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<sup>34</sup>Salter, 1967.

<sup>35</sup>Gross, Neal C. "A Postmortem on County Planning", Journal of Farm Economics, 25(1943) 644-661, Aug. 3, 1943.

The very essence of the planning process is foresight by some agency to project itself into the hazy future and establish the structure upon which this future will be built. The process of planning is thereby an anticipatory process, one in which the area of uncertainty is minimized.

Although the planning concept usually connotes a temporal space of some precise length, this characteristic is not integral to the meaning of planning. The integral factor is well-ordered thought in which the end or ends have been clearly specified and pragmatic decisions reached concerning the choice of means within the limits tolerated by the existing norms. A clear perception of prevailing conditions is a further requisite for planning. Thus, whether the action resulting from planning is to span fifty years or five minutes, the process is the same. (pp. 644-661).

The stated goals of the land use planning movement as it existed during the late 30's and early 40's were, according to Gross:

1) that county planning was to be essentially a coordinating activity of various agencies to form an integrated program to solve specific farm problems; 2) that it was a democratic process whereby the farmer would be able to participate in this coordinated program; and 3) that county planning intended as its main and final objective the creation of higher levels and standards of living for the farmer. It was the central thesis of Gross' paper that "county planning did not succeed because no desire to solve community and county problems was created in the population of the area in which the county planning program was to function." Gross concludes that "the removal of pathological conditions is secondary; the establishment of an avid desire, a self-help philosophy, is primary". Clawson suggests that a possible reason for the demise of county land use planning is that "the federal and state planning agencies which were charged with land



use planning undertook incisive, imaginative, innovative, forward looking planning, but in so doing allowed themselves to get too far ahead of effective popular opinion and thus lost critical political support."<sup>36</sup>

#### From World War II to 1973

Following the end of land use planning under the Department of Agriculture, planners have attempted to resurrect the old concept while at the same time trying to give to it a much broader base of application. Where the earlier program was mainly concerned with planning for the public lands and agriculture, the contemporary concept directs its emphasis to the planning and control of all development.<sup>37</sup> Under this broad definition of land use planning one could assume that any legislative action dealing with the use of land, public or private, could be thought relevant in a chronology of land use legislation. However, in the interest of space and in consideration of the fact that the historical aspect is only a part of the thesis, this section will discuss only those legislative activities that have had considerable impact and in brief detail.

The first post-war legislation to significantly influence land use planning was the Housing Act of 1949. This act stated that "The

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<sup>36</sup>Marion Clawson, "A Look at the Past and the Future", proceedings of the Soil Conservation Society of America. Special Conference, Ankeny, Iowa, 1973.

<sup>37</sup>Conrad, R. Deane, "Land Use: A Challenge to State Leadership", Water Spectrum 6(1974) 26-30.

general welfare and security of the nation and the health and living standards of its people require housing production and related community development sufficient to remedy the serious housing shortage, the elimination of substandard and other inadequate housing through the clearance of slums and blighted areas, and the realization, as soon as possible, of the goal of a decent home and suitable living environment for every American family, thus contributing to the development and redevelopment of communities and to the advancement of the growth, wealth, and security of the nation".<sup>38</sup>

This act gave legitimacy and national direction to a program of local land use planning and urban renewal that had already begun in several locations. The Garden City concept for developing new towns had been tried in England and also in this country under Theodore Roosevelt.<sup>39</sup> Three major attempts at employing this concept had been initiated prior to 1949. The renewal of slum areas in several large cities had also been tried previously. However, it was the Housing Act of 1949 and the expansion of that act by the Housing Act of 1954 which provided the authority for urban renewal on a national basis. The 1954 Act also provided for Federal Government participation in the cost of developing comprehensive plans for local units of government.<sup>40</sup>

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<sup>38</sup>U.S. Congress, Senate Bill S 1070, Housing Act of 1949, Public Law 171, 81st Congress. Washington, D.C.

<sup>39</sup>C. S. Stein, Toward New Towns for America, Liverpool: University Press of Liverpool, 1966.

<sup>40</sup>The Housing and Urban Development Act of 1965 expanded this participation.

In August 1954, the Watershed Protection and Flood Prevention Act (P.L. 566) was approved. This act authorized a permanent program by which the USDA provides technical and financial assistance to local groups who are willing to assume responsibility for initiating, carrying out, and sharing the costs of upstream watershed conservation and flood control. The Soil Conservation Service was designated as the USDA action agency. In August of 1956 this act was liberalized to provide federal assistance for municipal and industrial water supply development, upstream flood prevention, irrigation, drainage and other phases of water management. In August of 1958 it was amended to "insure appropriate recognition of the conservation and development of fish and wildlife resources in planning watershed projects. In September of that year the act was amended to specifically exclude recreation and in September of 1962 it was amended further by the Food and Agriculture Act of 1962 to provide for cost sharing public recreation. The latest amendment is one introduced in 1973 which would change the limitation on project plans to be approved by the Soil Conservation Service from \$250,000 to \$500,000.

In 1956 the Great Plains Conservation Program was established under which landowners were encouraged to make long term contracts with the USDA to restore their land and establish needed conservation measures. This program has resulted in over two million acres of cropland being reverted back into permanent pasture.<sup>41</sup>

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<sup>41</sup>K. E. Grant, "Land Use Past and Present", Proceedings of SCSA Conference.

Section 102 of P.L. 87-703 (Food and Agricultural Act) established the Resource Conservation and Development Program.

In 1964 the Public Land Law Review Commission was established for the purpose of reviewing and analyzing the nation's public land laws and to recommend to the executive and legislative branches of the Federal Government a comprehensive policy for coordinated administration of the nation's public lands.

In September 1964 P.L. 88-578, the Land and Water Conservation Fund Act of 1965 was approved. It provided for financial assistance to states for recreation planning and development and aquisition of land and water.

The Wilderness Act of 1964 (P.L. 88-577) influenced national land use policy in that it reflected a concern on the part of a growing number of people that a portion of our public land should be set aside and preserved for the purpose of "assuring that an increasing population accompanied by expanding settlement and growing mechanization, does not occupy and modify all areas within the United States .... to secure for the American people of present and future generations the benefits of an enduring resource of wilderness .... and shall be administered for the use and enjoyment of the American people in such manner as will leave them unimpaired for future use and enjoyment as wilderness." According to Lucus the intent of the Congress was that wilderness is to be used, not locked up. Specific uses described in the act can be grouped into recreational, scientific, and educational activities.

The Water Resources Planning Act (P.L. 89-80) of 1965 provided for cooperation by the Federal Government, states, localities, and private enterprise in planning for the comprehensive and coordinated conservation, development and utilization of water and related land resources. This act also established the Water Resources Council.

P.L. 89-560, the Soil Survey Program, was approved on September 7, 1966. This program has the potential to contribute greatly to the land use planning program in that the soils information which it is capable of producing may be used as the basic data upon which land use regulations are based. Units of local and state governments are presently availing themselves to this information in several states and as the soil survey becomes more extensive and the information derived from it becomes more refined, its value as a land use planning tool will increase proportionately.

On January 1, 1970 the National Environmental Policy Act of 1969 became law. It declares that "it is the policy of the Federal Government to use all practicable means to create and maintain conditions under which man and nature can exist in productive harmony and fulfill the social, economic, and other requirements of present and future generations of Americans."

Also in 1970, the report of the Public Land Law Review Commission was published giving recommendations for land use planning legislation. It recommended that Congress establish policies and goals for the public lands and provide management agencies with authority for carrying out the programs necessary to implement the policies and attain the goals---

to provide for a "continuing, dynamic program of land use planning" so that the public lands could be managed "in a manner that compliments uses and patterns of use on other ownership in the locality and the region".<sup>42</sup> For the last several years Congress has been moving toward enactment of the National Land Use Policy and Planning Assistance Act. Although no bill has passed both houses, one has passed the Senate. The general thrust of this bill, S.268, passed in 1973, is to provide federal financial assistance to encourage state planning and control over land use of clearly "more than local concern," not to establish federal planning or zoning. This bill provides for federal review of state land use programs which would focus not on their substance but on whether the state is making "good faith" efforts to develop and implement its program. States would have wide latitudes in determining how much or what specific land should be controlled and by whom.

For several years the American Law Institute (ALI) has been working on a model Land Development Code which would allow cities and counties to retain the initial power to regulate land development. It proposes that a local land development agency use a development ordinance, development permits, and various categories of development plans as tools for regulation. Under the model code, most development decisions would:

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<sup>42</sup>Aspinall, Wayne N. "Turns and Curves on a Well Traveled Road: The Vissisitudes of Establishing Land Use Policy." Proceedings of Soil Conservation Society of America Special Conference. 1973, p. 3.

continue to be the primary concern of local governments. The state planning agency would formulate a state land development plan and establish minimum rules and standards for implementing local plans. The state could designate and regulate land use in 'areas of critical concern' and 'uses of regional impact'. A key principle of the code is that the state play a role in 'big cases', only those having regional or statewide impact by virtue of their location, type, or magnitude--roughly estimated as no more than 10%<sup>43</sup> of all land use decisions within a state .

Historical and present relationships of federal agencies to land use planning

Many Federal agencies owe their existence to the land use policy of the National Government and were created to provide technical, administrative and financial assistance in the implementation of this policy.

In the setting of contemporary land use planning, these agencies find themselves performing basically the same tasks that they performed previously but now they are becoming more and more involved with land use problems on the local level. One reason for this is that as the local governments begin to formulate their comprehensive plans, they (or their hired planners) look to these Federal agencies to provide some of the technical data that is so vital to their planning. Those agencies that have responsibility for managing the public lands become

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<sup>43</sup>American Law Institute, Land Use: Can We Keep Public and Private Rights in Balance? Washington, D.C. "League of Women Voters Education Fund Publication No. 485", 1974, p. 18.

intimately involved with local planning activities in that the lands they control often form a part of the local community resource base.

The Economic Research Service derives its authority from the Organic Act of 1862. It has responsibility to provide economic analysis of the effects of alternative resource use on various aspects of the national agricultural life including: food supplies and costs, farm income, and the cost of government programs. The principle effort concerning the economic analysis of water and related land use is carried on by the Natural Resource Economics Division of the Economics Research Service. That division carries out economic analysis and projections in river basin planning and conducts research on related subjects as required including: water rights, water quality, watershed program analysis, outdoor recreation, land tenure and income distribution, rural zoning and other land use controls and employment and production effects.

The United States Forest Service was organized under the Department of Agriculture by the Transfer Act of February 1, 1905. The broad activities and principal laws relating to the Forest Service are the basis for advancing and promoting conservation treatment and utilization of forest lands for the maintenance of stable economic conditions in dependent communities. The three major Forest Service activities are: 1) management of the National Forests and the National Grasslands; 2) forest and range research; 3) cooperation of the state and private land owners provide the means of implementing these charges.



Probably the best known program of the Forest Service is the administration of National Forests and National Grasslands. They are managed "in accordance with the multiple-use, sustained yield Act of June 12, 1960 (PL 86-517) which stipulates that each forest resource--water, timber, forage, wildlife, recreation and wilderness will be managed harmoniously with other resources to provide the greatest benefit to the people and meet present and future needs both local and national".<sup>44</sup>

The Forest Service program which is most relevant to contemporary land use planning is number 3 above--cooperation with state and private landowners. This involves programs to 1) better protect the state and privately owned forests and critical watersheds against fire, insects, and disease; 2) encourage better forest practices for conservation and profit on private forest lands; 3) to aid in the distribution of planting stock for forests, shelterbelts, and woodlots; and 4) stimulate proper development and "proper" management of State, county and community forests. These programs provide the means whereby the entire private forest sector can develop the opportunities existing in the use of forest lands and resources, to improve overall watershed conditions, and participate in fostering a "healthy" local economy.<sup>45</sup>

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<sup>44</sup> Water Resource Council. Great Basin Regional Comprehensive Framework Study. Legal and Institutional Environments, Appendix III, Southwest Interagency Council, Washington, D.C., June 1971.

<sup>45</sup> Ibid.

The Bureau of Land Management is entrusted with the stewardship of other large public land areas. It was created in 1946 when a re-organization act consolidated the old Grazing Service and the General Land Office in the Department of Interior. The BLM carries out integrated program for the conservation and development of watersheds in order to preserve and protect soil and water resources. The program is a combination of land treatment and structural practices having a planned pattern in support of multiple use management. Fire protection and trespass control are a part of the overall resource protection program. This agency effects land use planning at the local level in those communities that are located near the public domain. This effect can be critical in that the availability of natural resources to the community for the implementation of its plan may depend on BLM policy and practices.

The Bureau of Outdoor Recreation was created in April, 1962 and is responsible for promoting coordination and development of effective programs relating to outdoor recreation. In performing these responsibilities the Bureau reports to the Secretary of the Interior through the Assistant Secretary--Public Land Management. The Bureau carries out most of the responsibilities delegated to the Secretary under the Land and Water Conservation Fund Act of 1965. Numerous functions are performed under the Federal Water Project Recreation Act.

The Bureau is responsible for:

Preparing and maintaining a continuing inventory and evaluation of the outdoor recreation needs and resources of the United States; preparing a system

for classification of outdoor recreation resources; formulating and maintaining a comprehensive nationwide outdoor recreation plan; promoting coordination of Federal plans and activities relating to outdoor recreation; cooperating with and providing technical assistance to States, political subdivisions, and private interests; encouraging interstate and regional cooperation; sponsoring, engaging in, and assisting with research relating to outdoor recreation; and cooperating with and providing technical assistance to Federal departments and agencies. ...Under the provisions of the Federal Water Project Recreation Act, the Bureau participates directly in the planning, coordination, and establishment of uniform policies with respect to recreation and fish and wildlife benefits and costs of Federal multipurpose water resource projects.<sup>46</sup>

The Bureau of Reclamation was created by the Reclamation Act of 1902 in the Department of Interior. Its responsibilities --

Pursued in cooperation with other agencies, Federal, State and local, includes the transformation through irrigation of arid and semiarid public and private lands into productive farms in the seventeen western states; the transmission, sale, and exchange of electric power and energy generated at Bureau projects and certain reservoir projects of other agencies; and provides water for municipal and industrial purposes on a repayment basis.<sup>47</sup>

Obviously the projects located in the vicinity of a planning area would have a profound effect on the planning processes of that area.

The Environmental Protection Agency was created under Executive Reorganization Plan No. III as an independent agency which reports directly to the President. It consists of the Federal Water Policy

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<sup>46</sup> Great Basin Study, Appendix III. Op. Cited, p. 59.

<sup>47</sup> Ibid, p. 60.

Administration, Bureau of Solid Waste Management, the Bureau of Water Hygiene, and the Environmental Radiation Protection and Pesticide Programs. EPA effects the land use planning processes of state and local governments through its power to impose regulations which it deems necessary to control air and water pollution.

The Soil Conservation Service is the agency of the Department of Agriculture that is responsible for the national program of soil and water conservation. Its aim is to help landowners and operators use their soil and water resources efficiently, profitably, and without waste.<sup>48</sup> The Soil Conservation Service, in providing in-put to the land use planning process at the state and local level carries out the following activities:

Makes investigations and surveys of the watersheds of rivers and other waterways, in cooperation with local, State and other Federal agencies, as a basis for coordinated River Basin programs for water and related land resources development. (P.L.566)

Helps local organizations plan and develop small watershed projects that protect the watershed, reduce floods and provide water for irrigation, livestock, fish and wildlife, recreation, and municipal and industrial uses. (P.L. 566)

Helps local sponsors of Resource Conservation and Development Projects plan for new and improved economic opportunities based on the development of land and water resources. (P.L. 87-703)

Assists owners of private rural lands, individually and in groups, in establishing soil and water conservation practices basic to income-producing recreation enterprises on their land.

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<sup>48</sup>Great Basin Study, Appendix III. Op. Cited, p. 12.

Gives technical information and interpretations of soils and small watershed hydrologic data for use by city and county governments, highway planners, zoning bodies, and others. (P.L. 46, 74th Congress, and 566, 83rd Congress).<sup>49</sup>

The Farmers Home Administration affects land use planning at the local level by providing low interest credit to local units of government as well as to private individuals. Ideally this credit is used to accomplish the objectives set by the local communities.

This agency makes Resource Conservation and Development loans to public agencies and non-profit corporations in areas that have been designated by the Secretary of Agriculture as Resource Conservation and Development Project Areas. This Program to improve the economy of communities in a project area are based on the conservation, development, and use of natural resources. (P.L. 87-703)

The FHA makes watershed loans to protect, develop and utilize watershed areas. These loans help local organizations pay costs allocated to them in an approved watershed work plan. Local organizations can obtain these loans or advances to carry out plans to protect, develop and utilize the land and water resources in small watersheds. Loan funds may be used to install, repair or improve facilities to store and convey irrigation water to farms, drain farm areas, store, treat and distribute water mainly for farm household, livestock and crop purposes. (P.L. 566)

It provides financial assistance to small towns and rural groups: The Farmers Home Administration makes loans and grants to public bodies and nonprofit organizations primarily serving rural residents to develop domestic water supply systems and waste disposal systems. (Consolidated Farmers Home Administration Act of 1961)<sup>50</sup>

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<sup>49</sup> Great Basin Study, Appendix III. Op. Cited, p. 14.

<sup>50</sup> Ibid, p. 14.

The Army Corps of Engineers contribute to local level land use planning through its:

...participation in comprehensive framework studies of an area or region for the purpose of (A) developing economic projections of development including the translation of such projections of water availability - both as to quantity and quality, and projections of related land resource availability and (B) outlining the characteristics of projected water and related land resource problems and the general approaches that appear appropriate for their solution. Full consideration is given in all planned studies to the principles and guides outlined in Senate Document 97, 87th Congress, 2nd session. Corps participation in these studies stems from specific Congressional authorization and/or the Water Resources Planning Act of 1965. (P.L. 89-80)<sup>51</sup>

#### Land use planning in Utah's history

Much of the federal legislation discussed previously has had a great impact on land use in Utah. Prime examples are those acts establishing National forest, the Taylor grazing act, the Bureau of Reclamation, national parks and monuments, soil and water conservation district enabling legislation and the Soil Conservation Service.

State involvement in land use planning programs can be viewed as an ordering of the nature of their control.<sup>52</sup> The first order is direct statutory control which is likely to occur only with relation to specific activities such as strip mining. The second order consists of guidelines and criteria for local and regional government procedures which may include the right of state intervention if local governments

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<sup>51</sup>Great Basin Study, Appendix III. Op. Cited, p. 16.

<sup>52</sup>Conrad, Op. Cited.

fail to exercise effective controls. The third order of state involvement is manifest in emerging mechanisms for joint action such as state-local land use commissions.

Conrad points out that while the commission mechanism is politically expedient, it has not, as yet, been proven effective. He also concludes that the traditional instrument of land use control (zoning) has never been proven adequate as a prospective measure for maintaining or enhancing existing land values--one of planning's prime functions.

Land use planning in Utah has evolved through the first of the preceding orders of state involvement, and is presently entering into a situation that appears to be a combination of orders two and three.

Local land use planning in Utah began in 1847 with the advent of the Mormon Pioneers, and its evolution to the present has been tied to their theocratic form of government and the arid character of Utah lands. The theocratic form of government enabled the first Utah land use planner, Brigham Young, to dictate the manner in which most of Utah's early communities would be laid out. The arid climate, to a large extent, dictated the crops that would be produced and provided the incentive for the development of irrigation systems. The orderly platting, surveying, and street layout in combination with the highly successful irrigation systems started Utah on a course of development which was, in the opinion of some historians, in general harmony with nature.

A significant part of Brigham Young's land policy was that no land was to be bought or sold. He and other church officials looked upon resources of nature as gifts of God-wealth that belonged to the

community and not to the individual.

We have no land to sell to the Saints in the Great Basin but you are entitled to as much as you can till. And none of you have any land to buy or sell more than ourselves; for the inheritance is of the Lord, and we are his servants, to see that every one has his portion in due season.<sup>53</sup>

Each farmer received only ten or fifteen acres of irrigated land. This precedent established at the parent colony was adopted by the other settlements and the practice of adhering to small holdings became general.<sup>54</sup>

Title to Utah lands was not possible under the provision of the Organic Act which was in effect at the time of settlement. Consequently, the pioneer settlers weren't permitted to buy the land they occupied. The Homestead Law of May 20, 1862, however, enabled them to take possession under homestead entry.

The passage of the Utah District Law, February 20, 1865, enabled Utah landowners to form associations to accomplish the distribution of water for agricultural and urban uses. Prior to the passage of this law, the principle of associated control had applied but only to the construction of canals.<sup>55</sup> Districts were now empowered to develop their land and water resources as they saw fit.

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<sup>53</sup>Sutton, "1847 in Utah: A Centennial History." Latter Day Saint Journal History. 2(1947), p. 27.

<sup>54</sup>Sutton, op. cited.

<sup>55</sup>Brough, Charles H., Irrigation In Utah, Baltimore: John Hopkins, 1898.



Development of the railroad gave the mormon settlers an opportunity to realize considerable increases in returns from the sale of their surplus production of grain crops.

The great highways of commerce thus established brought with them a large interchange of traffic and an increased demand for labor occasioned by this traffic .<sup>56</sup>

The cooperative methods of enterprise developed by the Utah irrigators also worked well in their commercial undertakings and with modern transport systems present, the Utah economy developed at a rapid rate. The Desert Land Act of 1877 permitted entries of 640 acres and required that water be put on the land and that the land be paid for at the rate of \$1.25 per acre. This act effected the reclamation of many acres of arid lands in Utah.

The agricultural sector of Utah's economy had developed into the following land use pattern by 1894:

Table 1. Land use pattern-1894.

|                   |           |                    |               |
|-------------------|-----------|--------------------|---------------|
| Irrigated acres   | 417,544   |                    |               |
| area of all farms | 1,785,732 |                    |               |
| acres in wheat    | 109,086   | Average production | 22.4 bu./acre |
| acres in corn     | 8,918     |                    | 20.3          |
| acres in oats     | 27,407    |                    | 33.7          |
| acres in barley   | 6,366     |                    | 30            |
| acres in rye      | 39,135    |                    | 20            |
| acres in hay      | 179,575   |                    | 2.56 ton/acre |
| acres in potatoes | 6,191     |                    | 172 bu./acre  |
| acres in beets    | 3,056     |                    | 8.0 ton/acre  |

<sup>56</sup>  
Ibid, p. 47.

Following statehood in 1896, Utah was given 7,414,276 acres of public land. Money from the sale of these lands was to go into a special fund which was not to be disturbed. However, the interest from this fund was to go to the support of public education.<sup>57</sup> In 1902, following the passage of the National Reclamation Act, the Strawberry Valley Reservoir and canal was constructed. This was the first of many reclamation projects in Utah.

Between 1897 and 1908 several national forests were created in the state, putting several million acres of forest land under protective management.<sup>58</sup>

The Antiquities Act of June 8, 1906 provided authority for the establishment of national parks and monuments, and in April of 1908 Natural Bridges National Monument was designated. Since that time 1,497,385 acres<sup>59</sup> of Utah lands have been set aside for this use. During the 1920's Utah's agriculture and mining industries experienced hard times but other sectors of the economy, especially transportation, entertainment, and manufacturing were booming. New Deal programs which were enacted to combat the depression of the thirties had a lasting effect on Utah lands. Most important of these were the CCC, WPA, and expanded Reclamation project activities.

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<sup>57</sup> Ellsworth, S. George, Utah's Heritage, Salt Lake: Smith Inc., 1972.

<sup>58</sup> Ibid.

<sup>59</sup> Utah Conservation Needs Inventory, U.S. Department of Agriculture, Soil Conservation Service, Portland, Oregon, 1970.

From 1940 to 1970 Utah's population doubled, increasing from 550,310 to 1,059,273. A large portion of this increase moved into the Wasatch Front, putting considerable pressure on land and water resources in three metropolitan areas--Salt Lake City, Ogden City, and Provo City. Most of Davis County was included in this area of rapid population growth. During this same period, major reclamation projects have engendered significant land use changes. Among them are: Flaming Gorge Dam, Glen Canyon Dam, The Emery County Project, and Central Utah Project. The main purpose of these projects are irrigation, flood control and electric power generation.<sup>60</sup>

Education in Utah has contributed greatly to the quality of its people and their environment. Utah State University and the University of Utah have undertaken extensive programs to evaluate land use planning problems and to generate new information and procedures for understanding and analyzing these problems.

Irrigation, reclamation, education and industrialization have, over the past 127 years created a condition of prosperity and affluence in Utah. Along with the blessings, however, has come many problems. To name but a few: sprawling urbanization, loss of prime agricultural lands, crowding, skyrocketing land values and pollution of important natural resources.

Political decision-makers in Utah have adopted concepts of land use planning from other state governments and from the federal

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<sup>60</sup>Ellsworth, op. cited.

government and have synthesized them into a piece of state legislation entitled the Utah Land Use Act of 1974 (S.B. No. 23). This act was passed by the Budget Session of the 1974 Legislature but was defeated when placed before the voters by referendum. It would have provided for machinery to be set up to aid local governments in future land use planning efforts but did not provide any immediate power or government control. In retrospect it appears that S.B. No. 23 failed to become law not because of the power it gave to State Government to plan and control land use but because it left ajar a door through which all sorts of real or imaginary bureaucratic monsters might enter to complicate the decisions Utahns make concerning land use.

## DISCUSSION OF BENEFIT-COST ANALYSIS

Benefit-cost analysis is an applied system of using economic tools to say something about the efficiency of a project or policy. It was mostly used to show feasibility of water and other government projects. In recent years it has been developed to a point of considerable sophistication by the Department of Defense using highly complicated mathematical and computer programming techniques. Still more recently an additional objective has been added to that of national economic development--environmental quality. This addition has had the effect of broadening the scope of the analysis considerably and has created new problems in measuring benefits and costs.

Benefits

Benefits are defined as the difference in the income of the study area with and without a proposed project. These benefits are computed by tabulating the benefits that are expected as a result of the project minus the benefits that would accrue to the area without a project. This involves projections of revenues and costs under both conditions and these projections are obviously subjective. However, to the extent that the projections can be based on accurate past accounting records of the locational units that are involved,

they can provide reasonably accurate estimates of potential benefits.

Benefits are defined by the Water Resource Council as: the value to users of output of goods and services from a plan; and the value of output resulting from external economies caused by a plan.<sup>61</sup> This definition eliminates from their vocabulary the distinction between direct and secondary benefits.

The benefits that accrue to a local economy as a result of annexation are of the kind referred to in most of the literature as "secondary benefits" and are defined as values added by incurring secondary costs in activities stemming from or induced by the annexation.<sup>62</sup> These benefits can be broken down into two sub groups; pecuniary external economies and technological external economies.

#### Pecuniary external economies

It is generally agreed among theorists that pecuniary external economies should not be counted in the benefit-cost analysis because they are merely transfers of rents between specialized factors. The gains to one factor are offset by losses to another and there is no net increase in the efficiency of the economy. For the present analysis, pecuniary external economies will consist of transfers of tax revenues from one unit of government to another. These benefits cannot be

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<sup>61</sup>Water Resource Council, Proposed Principles and Standards for Planning Water and Related Land Resources. Federal Register (36)(245) Tue., Dec. 21, 1971.

<sup>62</sup>Margolis, Julius, "Secondary Benefits, External Economies and the Justification of Public Investment" The Review of Economics and Statistics, 39(1957).

counted as such for the entire economy but will be counted as benefits to the receiving unit and as costs to the losing unit in the accounting table (table 2).

#### Technological external economies

These benefits are those that accrue to the location units of the study area (households, business firms, and government activities) from the extension of city services which lowers their costs of living or their operating costs.

#### Induced benefits

These benefits are the increased net returns which result from economic activity stimulated by consumer spending of wages and income earned from direct and indirect activity created by the annexation, such as capital expenditures for city services extended to the annexed area for social overhead capital.<sup>63</sup>

#### Costs

Costs are separated into primary costs; the value of goods and services used for the implementation and operation of the annexation, and associated costs; the value of goods and services needed over and above those included in the primary costs to make the immediate product or services of the annexating municipality available for use. For the purpose of this analysis, primary costs of the annexation at the macro level will include only the cost of the annexation procedure and capital costs incurred in providing city service facilities to the

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<sup>63</sup>Social overhead capital includes such items as roads, schools, public buildings, capital equipment such as trucks, cars, road maintenance equipment, sewer and water systems and etc.

annexed area. All other costs constitute transfers of cost from one government unit to another or from private individuals to a government unit, and will be displayed in the accounting table. Since these costs are all internal transfers they will not enter the beneficial-adverse effect calculation of the macro area.

### Discounting

Discounting is the process of reducing benefits and costs received and incurred in a future time period to their present value. This is necessary in order to compare benefits and costs on an equivalent time basis. With nearly all projects or policies that are undertaken there are certain initial costs that must be incurred at the outset as well as operating costs which occur yearly. On the other side of the ratio, the benefits are usually forthcoming at regular or irregular intervals over a definite or indefinite period of time. Since the decision to undertake the project or not must be made in the present time period, the most rational decision can be made if both the expected benefits and expected costs are analyzed in terms of their present values. Discounting of future operating costs can be eliminated, of course, if we concern ourselves with only the net benefits that accrue from the project (annexation).

According to Wennergren:

The value of future (net) benefits expressed in today's value is reduced or discounted due to the fact that money has earning capacity over time. This earning capacity is expressed by the rate of interest which is available to the holder of current benefits or to the holder of future benefits. Discounting is a computational procedure which



permits one to express the effect of variation in interest rate and time upon the value of future benefits.<sup>64</sup>

The discount rate--the rate of interest that is used to determine the present value of a net benefit stream is fundamental to the process of discounting. The formula for determining present value is:

$$PV = \frac{NR}{(1+r)^n}$$

where PV = present value

NR = annual benefit or net return

r = rate of interest (the discount rate)

n = year in which benefit is realized

One can readily see that the discount rate used in determining the present value of a stream of net benefits is extremely important. To illustrate, assume that

$$NR = \$1.00$$

$$n = 25$$

$$r = .04$$

$$\text{then } \frac{\$1.00}{(1+.04)^{25}} = \$ .37 \text{ (present value of 1.00 received 25 yrs in the future)}$$

However, if the discount rate (r) is increased to 8 percent the present value of the \$1.00 benefit 25 years into the future is only \$.14.

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<sup>64</sup>Wennergren, Boyd. "Introduction to Benefit Cost Analysis", USU, Logan, 1971, p. 14.

The question of what interest rate should be used to discount net benefits derived from a government project or policy has furnished the fuel for much continuing debate. In general terms, the two propositions that have been expounded most frequently are; (1) that rate which federal funds could earn if left in private hands, and (2) that rate which reflects society's time preference for consumption or the rate of interest which society demands in order for it to be willing to forego consumption of goods and services of equal value in the present time period.<sup>65</sup>

For the purpose of this study, that rate will be used which reflects the rate of interest that must be paid to finance the capital costs of providing city services to the annexed area. As of December 26, 1974 this rate is five percent through Farmers Home Administration.

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<sup>65</sup>Water Resource Council, Federal Register (36) (245) op. cit.

## A MODEL FOR ANALYZING AN ANNEXATION PROBLEM

Conceptualizing decision making systems at  
the local level of government

The most general and fundamental property of a system is the interdependence of parts or variables. Interdependence consists of the existence of determinate relationships among the parts or variables as contrasted with randomness or variability .<sup>66</sup>

Figure 5 displays a conceptual model of the decision making process to show how an annexation alternative fits into the overall system for solving a municipal problem. It illustrates several of the interacting components which are regarded as being a part of the conceptual model.

These components include:

1. Motivation for change
2. Local government officials
3. Identification of alternatives
4. Analysis of alternatives
5. Technical specialists
6. Publics

Sub-components of the "analysis of alternatives" components are:

1. Legal Parameters
  - A. Petitions
  - B. Maps

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<sup>66</sup>Parsons, T. & E.A. Shils. Toward A General Theory of Action, Cambridge, Massachusetts, Harvard University Press, 1951, p. 94.

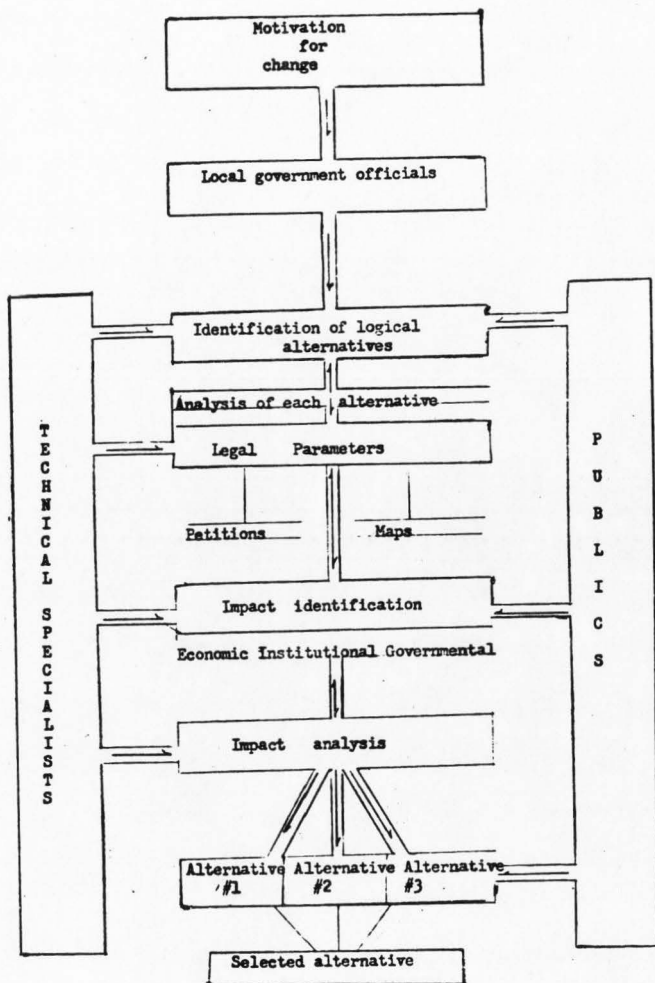


Figure 5. Conceptual model for decision making

2. Impact identification

3. Impact analysis

An annexation question could enter the conceptual model from one of several sources. A public of land owners in a developing area adjoining an incorporated municipality may request annexation to enable the extension of municipal services to their properties. Local government officials may be motivated to annex nearby real estate that possesses commercial or industrial development or development potential as a means of acquiring additional tax base. In this situation, other alternative courses of action for improving the fiscal condition of the concerned municipality should be considered. Other alternatives may include: consolidation of services along functional lines; consolidation of local government units, or an increase in the mill levy.

The analysis of an annexation question serves as an analysis of just one alternative and encompasses consideration of those components of the conceptual model that are related to analysis of alternatives (see figure 6).

Present laws governing annexation proceedings in Utah

1. The area proposed for annexation must be contiguous.
2. A majority of property owners within an area desiring annexation (who must represent at least one third of the value of all property in the area) must cause an accurate map of the area to be made and must file the map in the office of the recorder or town clerk of the city along with a petition in writing indicating a desire to be annexed.

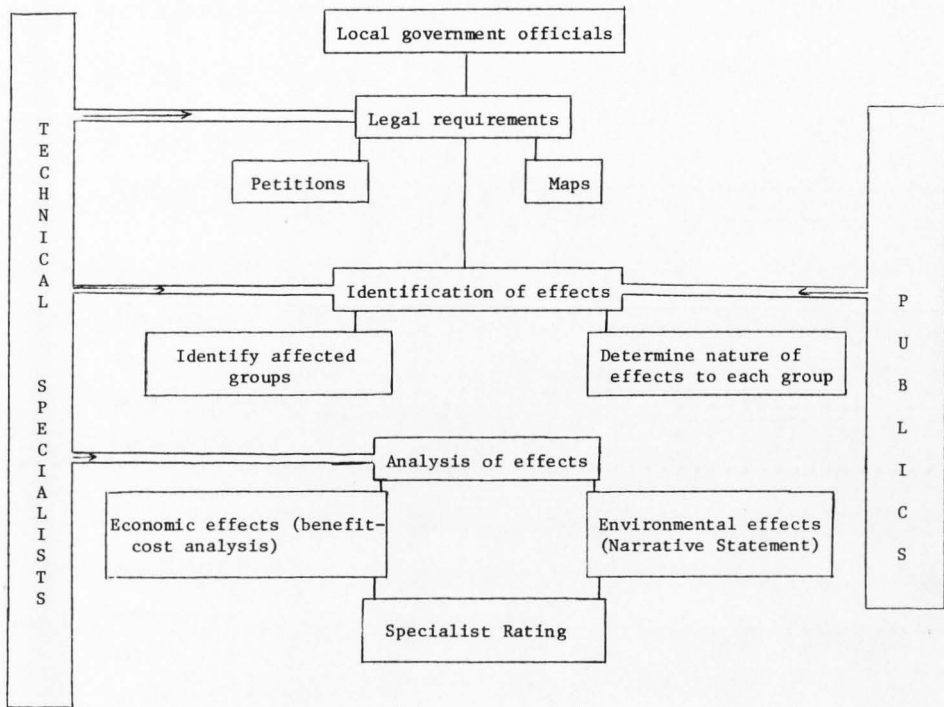


Figure 6. Conceptual model for analyzing the annexation alternative

3. The governing body of the city or town must indicate a desire to annex the territory by two-thirds majority vote in favor of annexation at their next scheduled meeting.

4. A copy of the map or plat must then be filed in the office of the county recorder, together with a certified copy of the ordinance declaring the annexation. Thereupon the annexation shall be considered complete. (Appendix one contains a full description of the procedure with explanatory comments.)<sup>67</sup>

Thus only officials of a municipality to which land has been proposed for attachment, and owners of real personal property within the fringe area are directly involved in the annexation proceedings. Indirectly however, several other parties are involved, including neighboring municipalities, special districts, the county, and private business operating in and near the area.

This paper will not attempt to reinforce the notion that annexation is the only possible solution to the problem nor to suggest alternative methods of solving it. Rather, it will be assumed that annexation will continue to be a dominant method of solution and we will pursue the task of applying an economic tool to the analysis of an annexation alternative in Wasatch County, Utah.

#### Arguments for annexation

1. Cities and towns must annex adjoining developments in order to upgrade services and remove possible health and safety hazards.

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<sup>67</sup> National League of Cities, Adjusting Municipal Boundaries: Law and Practice.

This involves annexation during and after development.

2. Annexation is necessary to provide an area that has become essentially urban with a more complex array of municipal services.

3. Municipalities must annex in order to insure their survival as the vital center of activity in a metropolitan region.<sup>68</sup> This requires annexation before development.

#### Arguments against annexation

1. Annexation creates administrative problems for the unit of government losing tax base property.

2. Annexation imposes an additional property tax burden on the annexees who must, following annexation, pay taxes to both the county government and the annexing municipality.

3. The area being annexed loses its identity and becomes a nameless part of a larger community.

4. Irresponsible annexation policies of growth minded cities creates insurmountable difficulty between units of government in providing municipal services.

5. Annexation can cause deterioration of quality and quantity of services provided by the annexing municipality if it over extends its ability to deliver these services.

#### Methodology

Formulating a technique for analyzing annexation problems in the benefit/cost framework was begun by determining who would be

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<sup>68</sup>Hoover, op. cited.



effected by a particular annexation proposal. Effected parties were then grouped according to their common interest in the proposal. The most obvious grouping is 1. the annexors; and 2. the annexees. The annexor is defined as the government of the annexing municipality.

The annexeé group was divided into four subgroups: 1. Residential property owners; 2. Commercial property owners; 3. County government-- which must be considered an annexeé because its tax base and geographical area of responsibility is being annexed; and 4. County taxpayers not located in the annex area.

The second step in the methodology is to array the effected parties in a table that will enable the analyst to display the relationship that exists between the groups and between the subgroups. Another function of this table is to display the calculated beneficial and adverse effects incurred by each group and subgroup in a way that will expedite the calculation of net average annual adverse or beneficial effects for each group and subgroup. From observation of the net average annual effects, the analyst can determine the present value of benefits and cost to each group using the following general formulas:

$$A = \sum_{i=1}^N \left[ \frac{S_i + P_i + b_i + X_i + C_i + (w+v)}{(1+r)^i} + \frac{C_i}{(1+r)^i} \right] \quad (1)$$

$$B = \sum_{i=1}^N \left[ \left( \frac{S_i + P_i + b_i + X_i}{(1+r)^i} \right) (L_e) + (w+v)(.45) + \frac{C_i}{1+r} (.80) \right] \quad (2)$$

$$C = \sum_{i=1}^N \left[ \frac{P_i + X_i}{(1+r)^i} + (w) + (m) \right] \quad (3)$$

$$D = \sum_{i=1}^N \left[ \frac{P_i + X_i}{(1+r)^i} + (w) + (Z) \right] \quad (4)$$

$$E + \sum_{i=1}^N \left[ \frac{S_i + b_i + C_i}{(1+r)^i} \right] \quad (5)$$

$$F = \sum_{i=1}^N \left[ \frac{S_i + b_i + C_i}{(1+r)^i} \right] (L_o) \quad (6)$$

where:

- A = Present value of the beneficial or adverse effect to annexor.
- B = Present value of the beneficial or adverse effect to annexor's taxpayers.
- C = Present value of the beneficial or adverse effect to annexed residential property owners.
- D = Present value of the beneficial or adverse effect to annexed commercial property owners.
- E = Present value of the beneficial or adverse effect to County government.
- f = Present value of the beneficial or adverse effect to County government's taxpayers.
- s = Expected change in sales tax revenues.
- p = Expected change in property tax revenues.
- b = Expected change in revenue from business license fees.
- x = Expected change in revenue from providing or receiving municipal services i.e., water, sewer, and etc.

w = expected revenue from, or cost for, tap in fees.

(average annual equivalent).

m = induced effect on residential property values (average annual equivalent).

v = net value of property transferred between annexor and county government.

c = expected change in operating costs.

z = induced effect on commercial property values (average annual equivalent).

N = Period of analysis.

$(1+r)^i$  = Discount factor.

$L_o$  = Percent of annexors fiscal budget going to labor. (76 percent)

$L_e$  = Percent of county's fiscal budget going to labor. (63 percent)

### The setting

Heber City, in Wasatch County, Utah has a population of approximately 3,500 people and a majority of the county's commercial activity. It is situated 40 miles east of Salt Lake City and other Wasatch Front communities which form the major population center in the state. Consequently, the residents of Heber City and the surrounding countryside are receiving considerable pressure to allow development of their mountain lands for recreational purposes. Additional pressure is also being exerted to expand municipal and commercial service facilities to accommodate present and expected economic growth.

Several commercial businesses are located adjacent to Heber City limits. Although this commercial area lies within county jurisdiction, it is, for all practical purposes, part of Heber City. It does not

have full municipal sewer and water services but benefits to some extent from city police and fire protection services. Some members of the Heber City council see this area as a prime potential source of revenue which they feel the town must have to meet the demands placed on it by the present growth situation. These revenue sources include sales taxes, property taxes, and license fees.

Problems that exist include: (1) an antiquated water system in Heber City that may be inadequate for providing water to the proposed annex area. (2) a sewer system whose transmission lines act as an underground drain system in the summertime when the water table is high, feeding more effluent into the treatment plant than can be treated; and (3) a sizable portion of the electorate who because of age or other reasons do not want to spend money to improve the service systems which will, in their opinion, encourage unwanted development.

#### Explanation of Tables

Table 2 displays the benefits and costs of the annexation as they accrue to the various groups and subgroups. Items shown in the left hand column are, in most cases, both benefits and costs depending on the effect they have on a particular group. For example, sales tax (item (1) under change in tax revenue) is a benefit to the annexing municipality and a loss (cost) to the annexee unit of government. Therefore, the net amount of the tax that is shifted from the annexee to the annexor is entered in the table under the subgroups that are effected by the shift. In this case a positive figure (+) is entered in the

annexing municipality column and a negative (-) figure is entered in the county government column.

Property tax changes, residential and commercial, represents a positive shift of revenue or benefit for the annexing municipality, a negative shift or adverse effect to annexed residential and commercial property owners, and no change in revenue for the county government who still levies its own property tax on all property owners.

Non-tax base revenues, i.e., license and service fees, represents benefits to the annexing municipality and costs to county government assuming county government provided these services and collected the fees before annexation and the annexing municipality provides and collects for them following annexation.

Net value of property transferred from annexe to annexor will represent a benefit to the annexing municipality and a cost to the county government unless a debt of equal magnitude is assumed by the annexor in connection with the transfer. In this case, there would be no net benefit or cost.

Operating cost changes due to annexation reflects the cost changes that occur as the annexor relieves the county government of the responsibility of providing services. These costs increase for the annexor and decrease for county government.

The net annual effect line shows the amount of net annual beneficial or adverse effects for each subgroup and is calculated by summing all (+) figures and all (-) figures, then subtracting the larger sum from the smaller sum. The difference is the amount of the beneficial or adverse effect depending on the sign of the largest sum.

Primary cost of annexation includes all capital costs that are to be incurred as a result of the proposed annexation and expenses for promoting and completing the annexation procedure.

Induced benefits (table 3) show the estimated impact on the effected groups of increased or decreased property values and increased or decreased disposable income of residents created by the induced effects of the proposed annexation. These effects on net incomes of commercial business are tied to increased or decreased efficiency from improved services.

Table 3 displays induced effects of annexation on the private sector of Wasatch County using "with annexation" and "without annexation" comparisons. Effects on property values are calculated by multiplying frontage (in feet) by 100 dollars to determine market value without annexation for both residential and commercial property. This method was suggested by the Wasatch County Assessor who uses 20 dollars per front foot as assessed valuation. Of the total 10,000 feet of frontage in the annex area, 1100 (11 units @ 100'/unit) represents residential and the remaining 8,900' is considered commercial. The "with annexation" value was derived for both residential and commercial property by adding on the capital cost of installing the facilities necessary to provide sewer and water services.<sup>69</sup>

The net change in property values were converted to an average annual figure by use of the amortization factor (5 percent for 20 years)

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<sup>69</sup> No significant increase in market value can be attributed to this annexation because there will be no land use change resulting from it.

to permit comparison with other factors on an equal basis. The effect of annexation on regional income was derived by subtracting adverse effects to annexees from beneficial effects to annexors. This figure was multiplied by the type II multiplier minus 1 (1.28) to determine the effect of a net increase in private disposable income created by the annexation.

Tables 4A and 4B present a summary of the annexor's revenues and expenditures for fiscal years 1968 through 1973. Table 5 displays data which was gathered by mail survey to determine present costs of water, sewer and garbage disposal services to annexees. Table 6 displays the present value of beneficial and adverse effects for each group in the study. Present value of effects is the average annual effects summed over the period of the analysis and discounted to their present value.

#### Assumptions of the study

1. Changes in beneficial and adverse effects will occur in exact proportion whether or not annexation is accomplished. Therefore, future without annexation projections are not required in table 2.
2. Area and population of the proposed annexation is not extensive enough to create significant scale economies or diseconomies in providing municipal services.
3. Annex area contains 90 percent of the commercial business in unincorporated areas of Wasatch County.
4. Population of annex area is equal to 11 residential units at 4 people per unit plus 13 commercial units. It was assumed that

one commercial unit will demand as much of any particular service as will 5 residential units (or 20 people). To adjust these figures to a common base for use in extrapolating costs from past and present budgets, both annexor's and annexee's populations were adjusted using the following equation:

$$[(\text{Residential Units}) \times (4)] + [(\text{Commercial Units}) \times (20)] = \text{Population,}$$

$$\text{Adjusted population of annex area} = 304 (11 \times 4 = 44) + (13 \times 20)$$

$$\text{Adjusted population of Heber City} = 4320 (3300 \text{ pop.}) + (51 \text{ comm. units} \times 20 = 1020)$$

5. Annexors sewage treatment plant is adequate for handling annexee's sewage.

6. Annexor's present water system is adequate for providing water to annexees.

7. All effects that represent a net increase or decrease of income to area households is subject to a multiplier effect of 1.28 (average of service sector type II multipliers--Utah I-0 Model).

8. The analysis displayed in table 2 accounts for only short range effects of the annexation.

9. The analysis displayed in table 3 accounts for long range economic effects of annexation.

10. Procedures for pricing municipal services will not be effected by annexation.

11. Share of annexors beneficial effects and county governments adverse effects allocated to their respective taxpayers was calculated on the basis of percent of total annual operating cost going to full time labor in the form of wages. Source, Heber City and Wasatch County clerks.



Annexing municipality -- 76 percent \$500.00/mo. average wage

County government -- 63 percent \$550.00/mo. average wage

12. Annexation will often create a capital gain to land owners whose land is being annexed. The reason is that the zoning designation will usually change from a low intensity use such as agriculture, to residential or commercial. With the zone designation change will come an increase in land values. Capital gains are not considered relevant in this study because the annexed land is currently in commercial and residential zones and no change in designation is anticipated.

#### Results of the annexation study

The study shows annexation of the herein designated contiguous property by Heber City to be economically feasible in the sense that total beneficial effects exceed total adverse effects.

As displayed in Table 2, Heber City (annexing municipality) will realize net benefits (increased revenue) of \$23,084. The annexors taxpayer share in these benefits as they are used by the city to provide improved services and wages to this group. These benefits come to a total of \$38,068.<sup>70</sup>

Property owning annexees were separated into two groups: Residential property owners and commercial property owners. These two groups are benefited by the annexation also. They will be required to pay a municipal purposes tax in addition to county purposes, school purposes and special districts taxes already levied on them; they will have a net increase in cost of water delivered to their home or

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Average annual equivalent using 1974 price base.

business when water service is provided by the city in addition to substantial tap-in fees assumed in the study. These two groups are partially compensated by being granted relatively low rates on waste and refuse collection service. This beneficial effect amounts to \$1,000 and \$5,600 respectively. Induced average annual effects of the annexation on property values (table 3) contributes additional compensation in amounts of \$1,380 and \$11,190 respectively.

Total net effects of annexation on residential property owners is an annual beneficial effect of \$1,440. Commercial property owners realize a net annual beneficial effect of \$10,347, county government realize net annual adverse effects of \$23,000 and county taxpayers a net adverse effect of \$14,800.

Heber City, its taxpayers and annexed property owners will receive a total beneficial effect of \$72,939. County government and its taxpayers will realize a total adverse effect of \$37,800. The net result of the annexation is a \$35,139 average annual beneficial effect. When internal transfers<sup>71</sup> are excluded from the calculation, the net beneficial effect is reduced to \$6,300. When beneficial and adverse effects are calculated on the basis of present value (table 6), net beneficial effects of 428,725.00 are realized over the 20 year period of the analysis.

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<sup>71</sup> Internal transfers are payments and receipts between location units within the economy which do not add to or deduct from the efficiency of the local economy as a whole.

Table 2. Average annual effects of annexation

| ITEM<br>(1)                          | ANNEXOR'S BENEFICIAL & ADVERSE EFFECTS |                             |                    |                   | ANNEXEE'S BENEFICIAL & ADVERSE EFFECTS |                          |  | Source of data<br>(8)               |
|--------------------------------------|--|-----------------------------|--------------------|-------------------|--|--------------------------|--|-------------------------------------|
|                                      | Annexing municipality<br>(2)           | Annexor's tax-payers<br>(3) | Residential<br>(4) | Commercial<br>(5) | County government<br>(6)               | County tax-payers<br>(7) |  |                                     |
| CHANGES IN TAX REVENUE               |  |                             |                    |                   |  |                          |  |                                     |
| 1. Sales tax                         | +25,000                                | +19,400                     |                    |                   | -25,000                                | -16,100                  |  | State Tax Commission                |
| 2. Property tax                      | + 2,800                                | + 2,100                     | - 300              | - 2,500           |  |                          |  | State Tax Commission                |
| NON-TAX BASE REVENUE                 |  |                             |                    |                   |  |                          |  |                                     |
| 3. Business license fees             | + 1,200                                | + 900                       |                    |                   | - 1,200                                | - 800                    |  | County Treasurer                    |
| 4. Waste & refuse collection         | + 200                                  | + 200                       | + 1,000*           | + 5,600*          |  |                          |  | County & city budgets & mail survey |
| 5. Water fees                        | + 5,600                                | + 4,300                     | - 200*             | - 2,900*          |  |                          |  |                                     |
| 6. Tap in fees                       | - 1,484 <sup>1/</sup>                  | + 668                       | - 440              | - 1,043           |  |                          |  |                                     |
| 7. NET VALUE OF PROPERTY TRANSFERRED |  |                             |                    |                   |  |                          |  |                                     |
|                                      |  | None                        |                    |                   |  |                          |  |                                     |
| OPERATING COST CHANGES               |  |                             |                    |                   |  |                          |  |                                     |
| 8. Waste & refuse collection         | - 5,200*                               | + 4,000                     |                    |                   |  |                          |  | City budgets                        |
| 9. Administration                    | - 200                                  | + 200                       |                    |                   | + 200                                  | + 200                    |  | City budgets                        |
| 10. Water treatment & delivery       | - 4,800*                               | + 4,000                     |                    |                   |  |                          |  |                                     |

<sup>1/</sup>  
Average annual equivalent 20 years @ 5%

Table 2. (continued)

| <u>ITEM</u><br>(1)                                       | <u>Annexing<br/>municipality</u><br>(2) | <u>Annexor's<br/>tax-payers</u><br>(3) | <u>Resi-<br/>dential</u><br>(4) | <u>Com-<br/>mercial</u><br>(5) | <u>County<br/>govern-<br/>ment</u><br>(6) | <u>County<br/>tax-<br/>payers</u><br>(7) | <u>Source<br/>of<br/>data</u><br>(8) |
|--|---|--|---------------------------------|--------------------------------|---|--|--------------------------------------|
| 11. Street maint. & snow removal                         |   |  |                                 |                                |   |  |                                      |
| 12. Police protection                                    | - 3,000                                 | + 2,300                                |                                 |                                | + 3,000                                   | + 1,900                                  | City budgets                         |
| 13. NET AVERAGE ANNUAL EFFECT                            | +23,084                                 | +38,068                                | + 60.00                         | - 843                          | -23,000                                   | -14,800                                  |                                      |
| 14. INDUCED EFFECTS (from table 3)                       |   |  | + 1,380*                        | +11,190*                       |   |  |                                      |
| 15. TOTAL AVERAGE ANNUAL EFFECT                          | +23,084                                 | +38,068                                | + 1,440                         | +10,347                        | -23,000                                   | -14,800                                  |                                      |
| 16. NET BENEFICIAL EFFECT                                | (72,939)                                | -(37,800)                              | = \$37,139                      |                                |   |  |                                      |
| 17. NET BENEFICIAL EFFECT ON LOCAL ECONOMY <sup>2/</sup> |   |  |                                 | \$6,300                        |   |  |                                      |

<sup>2/</sup> Transfers of benefits and cost between location units within the county boundaries are excluded from this calculation.

Explanations of Table 2 by column and line

| <u>Line</u> | <u>Col.</u>      |  |
|-------------|------------------|--|
| 1           | 2 & 6            | Amount is 90% of county's sales tax collection.  |
| 2           | 2,3,4<br>& 5     | The split between residential and commercial is on the basis of 20 dollars per front foot occupied by each. All land not presently occupied by residential is assumed commercial. Estimated assessed valuation of property to be annexed is \$200,000. Additional mill levy applied to annex property as a result of annexation is 14.00 mills (81.67 city)--(67.67 county)  |
| 4           | 2 & 3<br>& 4 & 5 | Extrapolated from annexor's budget. (Total fees)÷ (number of annexor's LU's*) X (LU's in annex area)- (present costs from table 4)   |
| 5           | 5 & 4            | Source of per capita water use--"Use of Water for M & I purposes in Utah counties 1960-61, BEBR University of Utah, July 1963.<br>(313gpd) X (44 residents) = 13,772 gpd X (30 days) = (413,160 gpm) ÷ (11 LU's) = 37,560 gpm/LU.<br>Rate of charge for water is: \$8/mo. minimum plus 12¢/ 1,000 gal. over 21,000 gal.<br><br>$\begin{array}{r} 37,560 \\ -21,000 \\ \hline 16,560 \text{ over the minimum} \\ \times .12 \\ \hline 1.99. - 8.00 = 9.99/\text{LU}/\text{mo.} \\ 9.99 \times 11 \text{ LU's} \times 12 \text{ mo.} = \$1,318/\text{year for residential} \\ \$1,318 - \$1,100 \text{ present costs from table 5,} - \$200 \\ \text{Commercial water fees are figured using 65 LU's (adjusted).} \end{array}$ |
| 6           | 2,3,<br>& 4 & 5  | Tap-in fees estimated at \$500/residential LU and \$1,000/ commercial LU.  |
| 9           | 2 & 3            | Extrapolated from annexors budget summary. All of administration cost increase is credited to annexor's taxpayers as wages.  |
| 10          | 2 & 3            | Lineal feet of water line extension amounts to 1.2% of existing system. Operating cost change was figured  |

\*LU = Location unit is defined as a household commercial business, or Governmental unit.

as 1.2% of OM&R for a proposed new water system designed for Heber City. Average annual cost of the water line extension (capital cost) is as follows:

Original estimate adjusted by 20% to reflect present prices was divided by total lineal feet in the city system, giving cost per lineal foot. This figure (7.67) times total feet of water line in the annex area (10,000) equals \$76,700. This was amortized at 8% for 50 years (.062340) for an average annual cost of 4,781.

- 3 See assumption #11.
- 13 2 Average cost of police protection per capita (9.72) X  
(adjusted population of annex area)

Table 3. Induced effects of annexation on the private sector

|  | Without<br>annexation     | With<br>annexation | Net<br>Effect         | Average Annual<br>Equivalent of<br>net effect @5%<br>for<br>20<br>years <sup>a</sup> |
|--|---------------------------|--------------------|-----------------------|--|
| EFFECT ON PROPERTY VALUES:                                   |                           |                    |                       |  |
| Market value of residential<br>property                      | \$110,000                 | \$127,200          | \$17,200              | \$1,380  |
| Market value of commercial<br>property                       | 890,000                   | 1,029,500          | 139,500               | 11,190   |
| TOTAL AVERAGE ANNUAL EFFECT ON<br>PROPERTY VALUES (76 acres) |                           |                    |                       | \$12,570   |
| EFFECT ON REGIONAL INCOME:                                   |                           |                    |                       |  |
| Increased income   | \$18,400,000 <sup>b</sup> | \$18,425,900       | \$25,900 <sup>c</sup> | \$25,900   |
| MULTIPLIER EFFECT  |                           |                    | \$33,200              | \$33,200   |
| TOTAL EFFECT ON REGIONAL INCOME                              |                           |                    | \$59,100              | \$59,100   |

<sup>a</sup>Net effect amortized @ 5% for 20 years (.0802425872)

<sup>b</sup>Source BEBR Vol. 34 No. 3, March 1974.

<sup>c</sup>Table 2 -- line 15 col. 3 minus (col. 4 + col. 5 + col. 7)

Table 4A. Annexor's budget summary

| REVENUE                      | 1968-69 | 1969-70 | 1970-71 | 1971-72 | 1972-73 | 5 year average |
|------------------------------|---------|---------|---------|---------|---------|----------------|
| Property tax                 | 33,641  | 32,624  | 27,100  | 33,000  | 36,600  | 32,793         |
| Sales tax                    | 31,665  | 33,403  | 36,000  | 36,200  | 38,500  | 35,154         |
| License & permits            | 5,029   | 5,731   | 5,600   | 4,800   | 4,800   | 5,192          |
| Fines & forfeitures          | 8,163   | 7,717   | 8,500   | 7,500   | 7,600   | 7,896          |
| From use of money & property | 1,855   | 1,487   | 2,500   | 6,530   | 6,500   | 3,774          |
| State liquor fund allot.     | 3,297   | 3,296   | 3,296   | 3,060   | 6,100   | 3,810          |
| Charge for current services  | 1,350   | 1,990   | 1,400   | 2,950   | 3,000   | 2,138          |
| Electric fund contributions  | 80,052  | 60,000  | 60,000  | 60,000  | 60,000  | 64,010         |
| Other                        | 2,857   | 2,928   | 8,897   | 14,475  | 9,500   | 7,731          |
| Total Revenue                | 167,908 | 149,176 | 153,293 | 168,515 | 172,600 | 162,500        |



Table 4B. Annexors budget summary

| Expenditures                            | 1968-69          | 1969-70          | 1970-71          | 1971-72          | 1972-73          | 5 Year<br>Average |   |
|---|------------------|------------------|------------------|------------------|------------------|-------------------|---|
| General Government                      | 24,615           | 18,206           | 24,500           | 23,328           | 25,151           | 23,160            |   |
| Administrative                          | 2,294            | 2,856            | 2,675            | @9% 2,592        | 2,794            | 2,642             | use 2,700                                   |
| Building & plant                        | 2,950            | 2,612            | 12,925           | @10% 2,880       | 3,105            | 2,887             |   |
| Public Safety                           |                  |                  |                  |                  |                  |                   |   |
| Police Dept.                            | 30,529           | 36,900           | 40,475           | @82% 46,740      | 52,885           | 41,505            | use 42,000                                  |
| Fire Dept.                              | 2,259            | 4,659            | 16,098           | @15% 8,550       | 9,674            | 8,248             |   |
| Inspection                              | 894              | 1,310            | 1,000            | @3% 1,710        | 1,935            | 1,370             |   |
| Public Works                            |                  |                  |                  |                  |                  |                   |   |
| Highways & Streets                      | 39,593           | 46,569           | 47,400           | @67% 46,900      | 46,079           | 45,308            | 25 mi. in Heber<br>1.5 mi. in Annex<br>area |
| Waste & Refuse<br>Collection & disposal | 18,405           | 25,160           | 17,600           | @31% 21,700      | 21,320           | 20,837            | use 21,000                                  |
| Airport                                 | 79               |                  | 4,220            | @2% 1,400        | 1,375            | 1,415             |   |
| Health Services                         | 140              | 35               |                  | @.1% 70          | 69               | 63                |   |
| Parks & Recreation                      | 3,342            | 3,802            | 7,200            | 6,500            | 6,350            | 5,439             |   |
| Cemetaries                              | 10,870           | 12,699           | 14,950           | 14,200           | 15,460           | 13,636            |   |
| <b>Total</b>                            | <b>\$135,970</b> | <b>\$154,808</b> | <b>\$189,043</b> | <b>\$176,500</b> | <b>\$186,130</b> | <b>\$166,510</b>  |   |

Table 5. Present residential costs for annexes<sup>3/</sup>

| Cost Items   | No. of <sup>4/</sup><br>LUs | Ave. distance<br>from dump                       | Ave. trips<br>per year | Ave. cost<br>per mile | Total annual<br>cost   |
|--|-----------------------------|--|------------------------|-----------------------|------------------------|
| Garbage Disposal   | 11                          | 2 mi.  | 104                    | .10                   | \$460.00 <sup>1/</sup> |
| Sewage disposal  |                             | Average annual cost of maintaining septic tank   |                        |                       | 550.00 <sup>2/</sup>   |
| Water  |                             | Average annual cost of maintaining well and pump |                        |                       | 1,100.00 <sup>2/</sup> |
| <hr/>  |                             |  |                        |                       |                        |
| Present Commercial Costs for Annexes                               |                             |  |                        |                       |                        |
| Garbage disposal   | 13                          | 1.8 mi.  | 240                    | .40                   | \$4,500 <sup>1/</sup>  |
| Sewage disposal  |                             | Average annual cost of maintaining septic tank   |                        |                       | 1,300 <sup>2/</sup>    |
| Water  |                             | Average annual cost of maintaining well and pump |                        |                       | 1,450 <sup>2/</sup>    |
| <hr/>  |                             |  |                        |                       |                        |
| Total Present Annual Cost of Garbage and Sewage Disposal and Water |                             |  |                        |                       | \$8,360                |

<sup>1/</sup> 2(distance)X(ave. no. trips)X(ave. cost/mi.)X(no. of LUs)

<sup>2/</sup> (ave. ann. cost)X(no. of LUs)

<sup>3/</sup> Source mail survey

<sup>4/</sup> Source: Background for Planning, Wasatch County Planning Commission

Table 6. Present value of beneficial and adverse effects

| Group  | Annexing municipality | Annexing municipality's taxpayers | Annexed residential property owners | Annexed commercial property owners | County government | County government taxpayers |
|--------|-----------------------|-----------------------------------|-------------------------------------|------------------------------------|-------------------|-----------------------------|
| Effect | 287,700               | 465,200                           | 17,900                              | 129,000                            | 286,600           | 184,400                     |

Net Beneficial Effect \$428,800

Average Annual Equivalent 34,400

## SUMMARY

1. The problem addressed by the thesis is that of applying economic analysis to a land use problem--annexation.

2. The objectives were: 1) to review contemporary land use planning theory and methodology; 2) to explore the legislative history of public land policy as it has developed in the United States and Utah; 3) to develop and demonstrate a model for analyzing a land use problem--annexation.

3. Two planning models were presented to illustrate two important methodologies for planning land use--government and academic.

4. The pareto criteria for an improvement in welfare was suggested as a principle that may find application in guiding land use policy and an example given of its possible application to a common situation.

5. A model using the production possibility curve and iso-revenue lines was presented showing how this model can be used to conceptualize the conflicts between environmental quality and economic development.

6. A discussion of benefit-cost analysis defined beneficial and adverse effects of a change in circumstances and showed possible application to the annexation problem using definitions of the Water Resource Council.

7. A review of historical aspects of land use planning shows that the Federal Government influences land use planning at all levels through its various agencies. This review also pointed out that the federal policy is leaning toward adopting more mandatory controls over land use

and relying less on economic incentives for accomplishing land use objectives.

8. A review of land use in Utah showed that this state began land use planning in 1847. Since that time many problems have come into being which created a need, felt by many of its citizens, to institute a renewed land use planning effort. The Utah Land Use Act of 1974 is the legislative beginning of this effort.

9. A model for conceptualizing decision making processes at the local level of government was developed to show how an analytical study of an annexation question fits into the overall decision making process.

10. The annexation study shows that Heber City and its taxpayers would do well to promote annexation of the proposed property. They would realize beneficial effects of \$23,084 and \$38,068 respectively. Residential and commercial property owners in the annex area would be benefited by annexation also. Their respective gains are: \$1,440 and \$10,347. County Government and its taxpayers lose from the annexation in amounts of \$23,000 and \$14,800 respectively. The gross effect of the annexation (with internal transfers included in the calculations is (beneficial effects--\$72,939) - (adverse effects--\$37,800) = net beneficial effect of \$35,139.

The net effect of the annexation (with internal transfers excluded from the calculations) is:

(beneficial effects--\$19,400) - (adverse effects--\$13,100) =  
net beneficial effect of \$6,300.

## CONCLUSIONS

The review of current planning theory and methodology coupled with a review of historical land use legislation brings out the point that the federal government has undergone two definite changes in its attitude toward land use policy. The laissez faire spirit prevalent in early historical policy for encouraging development and settlement gave way to a protectionist attitude with the Revision Act of 1891. A "pied Piper" spirit portrayed in the Reclamation Act of 1902, the Kinkaid Act of 1904, the Enlarged Homestead Act and others were acts whereby the congress led the private sector by playing a tune entitled "Encourage free enterprise and private ownership of the Nation's lands". This spirit, following World War II gave way to a more aggressive attitude toward direct federal involvement in upgrading the standard of living for all people. This took the form of urban renewal and the creation of federal agencies to aid state and local governments in developing master plans for the use of their natural resources. The creation of the Environmental Protection Agency could be viewed as the ultimate act of aggression by the federal government into the field of federal control over local land use.

Utah has been directly effected by much of the federal land use legislation enacted since this state was settled in 1847. The fact that Utah is lagging behind many of the more populated states in developing land use legislation is evidence that people become aware of land use conflicts only under conditions of crowding, affluence and federal assistance pressures.

The Utah Land Use Act, as with much land use planning legislation, is an example of a social "cop-out". It is an attempt by society to delegate to its government the responsibility for straightening out a situation created by its own inability to understand its natural resources and count the true costs of development. It threatened to abandon the efficiency of the market system in favor of bureaucratic inefficiency, supposing that a land use commission can somehow be omniscient enough to make those wise decisions that individuals within society find so difficult to make.

Allocation of scarce resources, including land, should be left to the operation of the law of supply and demand. The role of government should be restricted to supervision and regulation of monopoly elements and conducting whatever research is necessary to discover all of the true costs connected with a change in resource use and, when appropriate, ensure that these costs are internalized so as to be paid by beneficiaries of the change. Internalization is deemed appropriate when economic or environmental benefits accruing to those not involved in the market transaction are not sufficient to warrant their subsidizing the change.

The annexation model, when applied to the Heber City problem, showed a net beneficial effect for the annexing municipality and its taxpayers, and for property owning annexeas. The county government and its taxpayers suffered a net loss or adverse effect. The figures in row 15 in table 2 show that there is an adverse effect to the county government which must be compensated for if it will result in an additional tax burden or reduced employment of county taxpayers.

Otherwise a welfare improvement under the pareto criteria cannot be claimed for the annexation.



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APPENDIX  
CURRENT ANNEXATION  
PROCEDURES IN UTAH

## CURRENT ANNEXATION PROCEDURES IN UTAH

UTAH

Utah Code Annotated; 1965 Pocket Supplement. Indianapolis, Ind., The Allen Smith Co.; Title 10.

## BOUNDARY CHANGES

Popular determination is the most widely used method for making boundary changes in Utah. This state, furthermore, has provided for the establishment of county "service" areas designed to provide municipal-type services to urbanized, unincorporated areas without incorporation of a new governmental unit, and without extending the territorial jurisdiction of an existing municipality.

By Petition and Ordinance

A majority of the owners of real property and the owners of at least one-third in value of the real property in territory lying contiguous to the corporate limits of a municipality who desire to annex the area to the municipality may do so in this manner: The owners request a competent surveyor to make an accurate map of the territory. The map must be filed in the office of the recorder or town clerk of the city or town together with a petition signed by a majority of the real property owners and by the owners of at least one-third in value of the real property.

The governing body of the municipality must vote upon the question of annexation at the next regular meeting. If two-thirds of all the members of the governing body vote for the annexation, an ordinance is passed declaring the annexation of the territory and the extension of the municipality's corporate limits.

## CONSOLIDATION

When the inhabitants of two or more contiguous incorporated areas desire to consolidate, their respective governing bodies, or 10 percent or more of the real property taxpayers, may petition the board(s) of county commissioners of the affected county(s) for consolidation. (The real property taxpayers must also be qualified electors; the petition names each of the contiguous incorporated areas proposed to be consolidated and all actions of the governing bodies must be authorized by resolution.)

## UTAH

The petition, when prepared by the municipal units, must contain an agreement executed by the mayors and recorders or clerks and approved by the governing body of each municipal corporation. The agreement covers the disposition of every waterworks plant or system, sewer, gas, electric or other system, transportation line or other facility, or public utility, or any public building or park for the acquisition of all or any part of which any obligations payable from revenue or from taxes that have been issued and are still outstanding at the time of the proposed consolidation.

The agreement generally deals with the nature of the obligations, responsibilities and duties assumed by the new municipal corporation and the rights acquired by it. Also, the agreement is subordinate in all respects to the contract rights of all holders of any bonds or other obligations of the original municipal corporations outstanding at the time of consolidation. Furthermore, the agreement must be filed with the board of county commissioners of each county involved, and made available for public inspection.

When the petition has been completed, the board(s) of county commissioners will fix the time and place within the boundaries of the proposed municipal corporation at which time an election may be held to determine the matter.

Effects of Boundary Change

The resultant new municipal corporation formed by the consolidation is a continuation of the individual merged corporations and owns all the assets, property, records, seals, equipment, and is responsible for the liabilities of each and all of the municipal corporations disincorporated by the consolidation.

The new municipal corporation must require the inhabitants of an original municipal corporation included in the consolidation to satisfy, by special tax levy, any and all indebtedness incurred by the original municipal corporation. If the inhabitants residing in other parts of the new consolidated municipal corporation benefit by the revenue or services obtained by the expenditure causing the indebtedness, this rule does not apply.

The government of the new corporation is subject to the terms of the consolidation agreement.

EXCLUSION OF TERRITORY

A majority of the real property owners in territory within and lying upon the borders of a municipality may petition for detachment

from it. The petition must be filed with the clerk of the district court of the county in which the territory lies. The petition must cite the reasons the territory should be disconnected and the petition must be accompanied by a map of the territory sought to be disconnected and designate no more than five persons who are empowered to act for the petitioners.

#### ADJUSTING MUNICIPAL BOUNDARIES

The court will conduct a public hearing. If the court finds that the petition is in order and that justice and equity require that the territory, or any part of it should be disconnected, it must appoint three disinterested persons as commissioners. The commissioners will adjust the assets and liabilities of the affected areas and fix the mutual property rights of the city or town and the territory to be detached.

#### COURT DECISION

Despite the Constitution's distribution of powers clause in the usual form, Utah courts under the detachment statute exercise discretion to detach territory if "justice and equity" requires. The power was approved by the supreme court in 1930,<sup>1</sup> (Plutus Mining Co. v Orme, 76 Utah 286, 289 Pac. 132.) asserting that "While some courts of high standing have held that the Legislature may not delegate its authority to restrict the corporate limits of a city to the judiciary, the contrary view has become the established law of this jurisdiction." A note of caution was sounded in the court's further observation that "In view of the fact, however, that the changing of the territorial limits of a city is primarily a legislative function, courts are bound to confine the exercise of the power conferred upon them by the Legislature within the expressed or necessarily implied language of the act so conferring such power." Findings in a 1955 case<sup>2</sup> (Howard v. Town of North Salt Lake, 3 Utah 2d 189, 218 Pac. 2d 216) are of similar import.

#### GENERAL COMMENTS

Creating a method of providing municipal-type services to urbanized unincorporated areas without incorporation of a new governmental unit, and without extending the territorial jurisdiction of an existing municipality, is the objective of a 1957 law, the County Service Area Act (Secs. 17-29-1 to 17-29-24). Under the act it is possible, although not mandatory, to dissolve existing special improvement districts if desired and to service their territory henceforth as a county service area.

In the purpose of the act the legislature states that it finds that "The necessity for establishing these county service areas is a

result of the growth of the unincorporated areas of some counties," and that "as a result of the large population growth and intensive residential, commercial and industrial development in such areas, extended governmental services are needed in such areas." The legislature asserts that it "recognizes the duty of counties as instruments of state government to meet adequately the needs of such areas," and that it "also recognizes that such areas should pay for the extended services provided.

Services that may be made available include, but are not limited to, "extended police protection; structural fire protection; culinary or irrigation water retail service; water conservation; local park, recreation or parkway facilities and services; cemeteries; libraries; sewers, sewerage and storm water treatment and disposal; flood control; garbage and refuse collection; street lighting; airports; planning and zoning; local streets and roads; curb, gutter and sidewalk construction and maintenance; mosquito abatement; health department services; hospital service." On the whole this is a rather complete municipal package.

Service areas for one or more of the preceding (and possibly others) may be established on initiative of either the county government or the local residents when "the majority of the board of county commissioners vote in support of a resolution made by a member of that board, describing the boundaries of the territory proposed to be included in the area and specifying the type or types of extended county services already provided or to be provided" or when "a petition, filed with the county clerk, requesting the institution of such proceedings is signed by not less than ten percent of the registered voters residing in the territory proposed to be included within the area."

The possibility, unlikely or not, that territory might shift from "service area" to "municipal" status is recognized in the provision that "Whenever any territory in the county service area is subsequently included within an incorporated area, that territory is forthwith excluded from the county service area upon that date of its inclusion in the incorporated. Upon the exclusion of such territory, all unencumbered funds standing to the credit of the county service area upon the date of exclusion shall be divided between the incorporated area and the county service area in proportion to the assessed value of the real property of the territory excluded and the portion remaining..."

There have been some changes in the County Service Area Act. These are concerned with provisions for overlapping areas, and the publication and mailing of resolutions, dissolution of services of area and the problem of county service areas subsequently included in cities of first and second classes.

#### NOTES

1. Plutus Mining Co. v. Orme, 76 Utah 286, 289 Pac. 132 (1930).
2. Howard v. Town of North Salt Lake, 3 Utah 2d 189, 218 Pac. 2d 216 (1955).