A METHOD OF CONTROLLING THE YEARLY ACQUISITION AND DEVELOPMENT BUDGETS OF A PROPOSED TEXAS STATE PARKS SYSTEM

by

PAUL EUGENE SCHLIMPER, B.F.

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TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

CHAPTER I

INTRODUCTION

One of the major resources of Texas is its state parks system. About twenty-seven years ago, the system was developed to an adequate level through the assistance of the Civilian Conservation Corps, the National Youth Administration, the Works Project Administration, and the National Park Service. Since that time, however, improvements and expansion of the system have not paralleled the surging increase in the demand for outdoor recreation. As a result, the present "Texas State Parks System is badly out of date."[1]

The decline of the parks system did not occur unnoticed. In 1960, after repeated attempts, the Texas State Parks Board arranged for a preliminary study of the system's dilapidated condition by the Texas Research League. A primary recommendation of the League was that "park acquisition, development, interpretation, and maintenance . . . be based on a carefully drawn, long-range plan."[2] The League further recommended that the plan be compiled by the Department of Horticulture and Park Management of Texas Technological College.[3]

The recommendation was effected in 1961 when the Texas Legislature

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[1]Texas Research League, Texas State Parks: Blueprint for Rebuilding a Major Resource (Austin: Texas Research League, 1961), p. 1.

[2]Ibid., p. IV.

[3]Ibid., p. 10.

authorized the Parks Board to make a two-year interagency contract with Texas Technological College for the purpose of developing the plan. Although work on the plan was centered in the Department of Horticulture and Park Management,[4] the Departments of History and Biology provided the assistance needed in rendering the plan comprehensive.

To accomplish the assigned task, the Departments, in September, 1961, established the Texas State Parks Research Committee. The Committee was composed of five graduate student research assistants, each of whom had received undergraduate training in one of the following fields: park management, landscape architecture, forestry, biology, and history. The author, representing the profession of forestry, was a member of this group. Professors of the aforementioned departments and visiting consultants directed the Committee in its preparation of the comprehensive, thirty-seven year plan.

On March 15, 1963, the Committee presented an audio-visual report of its two-year study to the Texas State Parks Board and thirty-nine members of the Texas Legislature. An official written report, to be published in September, 1963, was planned for presentation at a later date. The problem dealt with in this thesis was a direct result of the Committee's findings and recommendations.

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[4]In September, 1963, the name of the Department will become "Department of Park Administration, Horticulture, and Entomology."

Purpose and Scope of the Thesis

A principal finding of the Texas State Parks Research Committee was that many of the factors necessary for the preparation of a long-range state park plan are presently indeterminable. Inconsistent and unsound methods of collecting basic data concerning attendance at state parks, present and future recreational desires of the public, and similar items were found to be prevalent. Basic research concerning such factors as the recreational capacity of an acre, the amount of native type land required in state parks, and similar basic components were discovered to be completely lacking.[5]

In showing the effects of these inaccurate or deficient data on park system planning, the Committee cautioned that its proposals regarding future land acquisition and development be recognized as "expert opinions" rather than positive goals. It suggested that the recommendations concerning the rates of acquisition and development, as well as the ultimate extent of acquisition and development, be reappraised at least every two to four years in the light of improved data.[6] The Committee did not have time to outline a detailed method of reappraisal.

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[5]Texas Technological College, Department of Horticulture and Park Management, "Texas State Parks: A General Report of Functions, Space Requirements and Policies for the Future" (unpublished manuscript, 1963), pp. 6-7. This report will be published in September, 1963. Page numbers referred to in this and following citations are from the manuscript from which type is to be set.

[6]*Ibid.*, p. 17.

Consideration of how the reappraisal might be effected led the author to conclude that should the Texas State Parks System adopt an annual policy of determining its acquisition and development needs, the essential reappraisal data would be collected during the course of each year through necessity. A scientific approach to the determination process would assure that the accuracy of the data was improved each year and that the parks system was not acquiring or developing more land than it needed. Because standard, scientific budgeting processes entail a yearly determination of needs and costs, the author decided that a method of controlling the yearly acquisition and development budgets for Texas State Parks would provide the necessary data for the Committee's reappraisal recommendation and, at the same time, would keep the parks system from over acquiring and over developing park land.

The purpose of this thesis, therefore, was to determine a practical method of controlling the yearly acquisition and development budgets of the proposed Texas State Parks System. The scope of the thesis was limited to a consideration of the problems that were encountered in devising the control method. The intricate relationships that exist among many of the factors that influence the acquisition and development budgets were discussed only when such was essential to a clear understanding of the control method. The various ways of collecting the data that would be needed to solve the control method formulae were excluded from the thesis.

Review of Literature

An investigation of books, periodicals, and professional journals concerning park and recreation administration disclosed no methods of controlling state park acquisition and development budgets. Likewise, an examination of annual reports and long-range, comprehensive plans of various state park systems failed to uncover any specific control methods.

Evidence that some park systems base their development planning on visitor surveys was discovered in a few of the annual reports studied, but a positive indication of development control was commonly lacking. Most of the visitor surveys that were mentioned in the reports were used to determine where the visitors were from, how long they stayed in the parks, and what they would like improved about the parks.[7] In addition to surveys, one park system was found to be meticulously collecting attendance data according to the kind of facility used. This particular report stated that the statistics, and future estimates thereof, were essential to planning.[8] Another report stated that similar statistics were used to justify acquisition and

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[7]Missouri State Park Board, 1960 Annual Report of the Missouri State Park Board (Jefferson City: Missouri State Park Board, 1960), pp. 2-3.

[8]Indiana Department of Conservation, 42nd Annual Report of the Division of State Parks for the Fiscal Year Ending June 30, 1960 (Indianapolis: Indiana Department of Conservation, 1960), p. 6.

development programs.[9] A method of utilizing the statistics, however, was not explained in either report.

A majority of the long-range state park system plans that were studied emphasized the possible inaccuracy of the acquisition and development proposals contained within. The plans stipulated that after five or six years, "the decision to move ahead . . . must be weighed carefully," or that the plan needed "continuous review," or that the plan should be periodically reappraised in the light of past experiences and studies of future needs.[10]

The many vague recommendations concerning control that were revealed by a survey of short-range plans can be summarized by the following quotation:

> . . . recreation areas and facilities should be maintained in sufficient number to accommodate public use . . . without overcrowding. Existing areas and facilities should be improved and expanded whenever this is feasible . . . .[11]

Completely ignored was a method for initiating the implied control.

After obtaining negative results from the park and recreation

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[9]California Department of Conservation, Program for California's Beaches and Parks (Sacramento: State of California, 1961), p. 6.

[10]Ibid., pp. 5, 10; Hawaii Territorial Planning Office, A Territorial Parks System for Hawaii (n.p.: Territorial Planning Office, January, 1959), p. 22; Michigan Department of Conservation, State Parks of Michigan (n.p.: Michigan Department of Conservation, 1957), p. 24.

[11]Edwards, Kelcey and Beck, Consulting Engineers, An Inventory and Plan for Development of the Natural Resources of Massachusetts, Pt. II of Public Outdoor Recreation (2 pts.; Boston: Department of Natural Resources, 1957), p. 53.

literature review, the author turned to an analysis of budgetary control procedures used by general business. Although various methods of budgetary control were presented in the textbook and survey studied,[12] the specific methods were not directly related to the thesis problem. The basic principles upon which the methods were based, however, provided clues as to how the problem might be solved.

Definition of Terms

Proposed Texas State Parks System

Kind of parks

The parks system proposed by the Texas State Parks Research Committee consisted of four park classifications: recreation parks, scenic parks, historic parks, and historic sites.[13] Criteria for each were placed in Appendix A of this thesis.

Size of system

The ultimate extent of the system for Texas was suggested as 435,000 acres, which included the 62,000 acres currently within the system. Of the 435,000 acres, 100,000 acres were allotted to scenic parks, historic parks, and historic sites. The remaining 335,000 acres

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[12]Walter Rautenstrauch and Raymond Villers, Budgetary Control (New York: Funk and Wagnalls Co., 1950); Bernard H. Sord and Glenn A. Welsch, Business Budgeting: A Survey of Management Planning and Control Practices (New York: Controllership Foundation, 1958).

[13]Texas Technological College, Department of Horticulture and Park Management, "Texas State Parks," p. 4.

were assigned to recreation parks. Approximately 67,000 acres of the total acreage were suggested for development for active recreational uses. The 268,000 acre residual was to remain, or be made, native in character for contemplative and scenic purposes.[14]

Attainment of system

Of prime concern to the Committee was the rates at which the recommended acreage should be acquired and developed. TABLE 1 presents the Committee's suggestions as to how much land might be acquired and developed during each biennium until 1999. As stated in Purpose and Scope, however, the Committee's recommendations concerning the ultimate extent and rates of acquisition and development were probable goals and not definite ones. It sanctioned stringent control of the goals.

Organization of system

Because the Texas Research League had devised a satisfactory organizational structure for the parks system through its investigation in 1960, the Committee merely studied and endorsed the League's proposal. A simplified form of the League's recommended organizational chart for the parks system was designated Figure 1. The League's proposed regional organization was illustrated by Figure 2.

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[14] Ibid., pp. 8-9.

TABLE 1

TEXAS STATE PARKS SYSTEM LAND ACQUISITION AND DEVELOPMENT RATES (IN ACRES) FOR THE BIENNIAL PERIODS 1963-1999, INCLUSIVE, AS RECOMMENDED BY THE TEXAS STATE PARKS RESEARCH COMMITTEE*

Biennial Period	Acquisition Rate (Acres)	Development Rate (Acres)
1963-1965	. .	1,100
1965-1967	50,000	1,500
1967-1969	40,000	3,000
1969-1971	50,000	4,000
1971-1973	50,000	4,000
1973-1975	50,000	4,000
1975-1977	40,000	5,000
1977-1979	30,000	5,000
1979-1981	30,000	5,000
1981-1983	20,000	5,000
1983-1985	10,000	5,000
1985-1987	5,000	5,000
1987-1989	5,000	4,000
1989-1991	3,000	3,000
1991-1993	3,000	3,000
1993-1995	3,000	3,000
1995-1997	3,000	3,000
1997-1999	3,000	3,000

*Source: Texas Technological College, Department of Horticulture and Park Management, "Texas State Parks," p. 16.

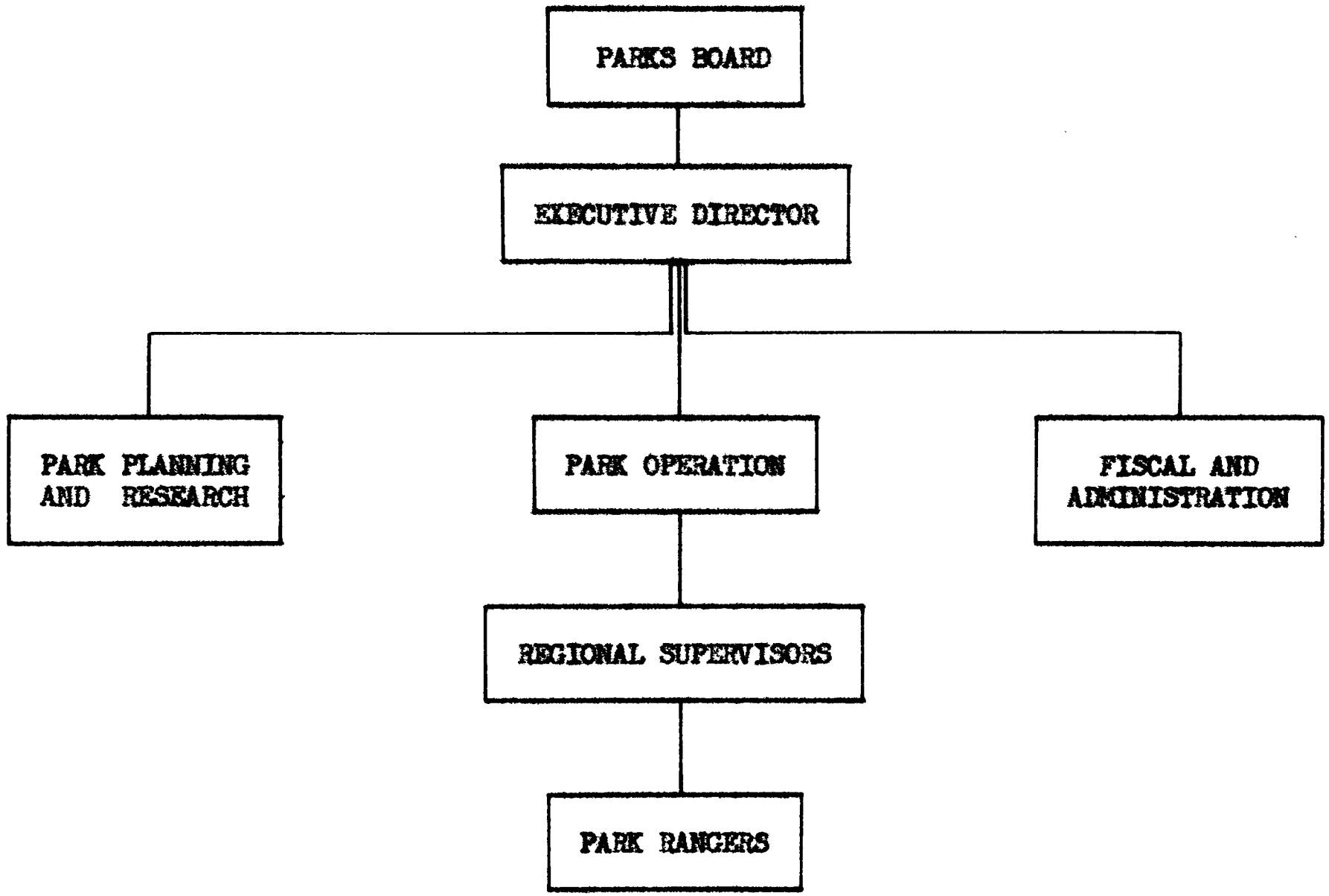

Fig. 1.—Organization of the Texas State Parks System as Proposed by the Texas Research League. (Source: Texas Research League, Texas State Parks, p. 12.)

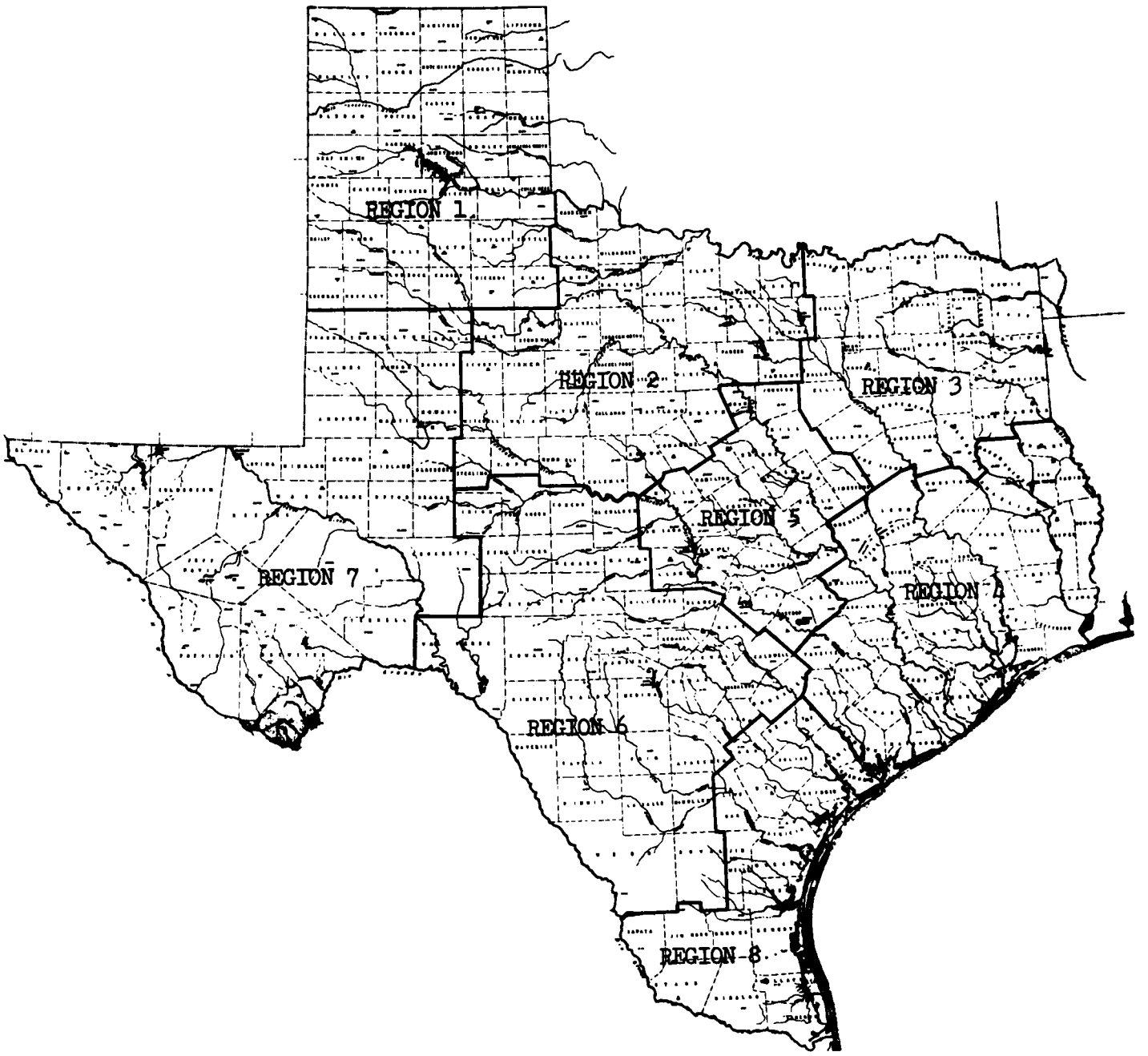

Fig. 2.--Regional Boundaries of the Texas State Parks System as proposed by the Texas Research League. (Source: Texas Research League, Texas State Parks, pp. 6-7.)

Acquisition

Acquisition was defined as the act of gaining the use of a property by lease, license, or similar term conveyance, or of obtaining the absolute title of a property by purchase or by gift.

Acquisition Budget

In this thesis, acquisition budget referred to the total yearly allotment of funds needed for land acquisition by region and for the proposed Texas State Parks System as a whole.

Development Budget

Development budget referred to the total yearly allotment of funds needed for the development of state park facilities by park, by region, and for the entire system.

Control

Control was defined as a process of gathering facts and figures that would be useful to determine acquisition and development needs and of using the determined needs for better planning and more efficient operation.[15]

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[15]Sord and Welsch, Business Budgeting, p. 331.

CHAPTER II

METHODS AND PROCEDURES

The review of park and recreation literature, although failing to disclose methods of controlling yearly acquisition and development budgets of state parks, revealed that a definite need for such control exists. Prompted by this evidence, and especially by the emphasis placed on control by the Texas State Parks Research Committee, the author took the initiative to originate a method of controlling the yearly acquisition and development budgets of the proposed Texas State Parks System. The following procedure was determined to be a reasonable means for devising the control method.

Determining a Method of Controlling the Yearly Acquisition Budget of a Proposed Texas State Parks System

The first step that was taken in developing a method of controlling the yearly acquisition budget of the proposed Texas State Parks System was to determine the component and influential factors of the concerned budget. This determination was accomplished by answering the following series of questions: (1) what basic factors would be needed to determine the overall extent of the acquisition budget; (2) what factors would influence or be needed to determine the value of the resulting basic factors; (3) what factors would influence or be needed to determine the value of the factors discovered by solving the second question, and so on until answers significant to the composition

of a control method were no longer obtained. The resulting factors were tabulated according to the directness of their relationship to the budget.

The next step in the procedure was to isolate those factors of which the acquisition budget is a function. The selection was completed by deliberating, from a mathematical viewpoint, the relationships that exist among the various factors. The problem was to determine which of the factors could be expressed numerically, and of those that could be, which could be arranged to produce formulae that, when solved, would yield a controlled acquisition budget. The proposition to be completed was: "the acquisition budget is a function of what independent variables?"

After the independent variables were chosen, the third process was to organize the variables into a series of formulae that would best describe a control method. Accepted principles of mathematical notation were used as much as possible in the selection of symbols for the variables.

Three criteria, common to most budgetary control procedures, were followed in deriving the formulae that were to compose the control method. The first stated that the control method should be based upon a measurable public demand factor.[16] The second required that all managerial levels within the parks system organization--central, regional, and individual parks--should have a definite role in the

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[16]Rautenstrauch and Villers, Budgetary Control, pp. 68-69.

control process.[17] The third stipulated that, although arbitrary judgment decisions are necessary in any control method, they should be kept to a minimum and that, when made, should be based upon long-range plans and, if applicable to the decision, upon the results of accurate surveys, predictions, research findings, or similar data.[18]

The final step in the procedure was that of evaluating the characteristics of the formulated control method and selected formula factors that appeared to need individual consideration.

Determining a Method of Controlling the Yearly Development Budget of a Proposed Texas State Parks System

The same procedure as that described in the preceding section was used to devise a method of controlling the yearly development budget of the proposed Texas State Parks System.

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[17] Ibid., pp. 18-19, 25; Sord and Welsch, Business Budgeting, pp. 25-26, 335-347.

[18] Rautenstrauch and Villers, Budgetary Control, pp. 63, 77.

CHAPTER III

FINDINGS AND INTERPRETATIONS

Component and Influential Factors of the Yearly Acquisition Budget

Tabulation of Factors

The factors that were resolved to be components of, or to have an influence on, the yearly acquisition budget were recorded in TABLE 2. Because the table was designed to exhibit only those factors that were considered pertinent to the determination of a control method, it does not contain all the lateral factors that possibly could be related to the acquisition budget.

The column headings of the table were labeled to correspond with the series of questions described in METHODS AND PROCEDURES (see p. 13). The factors listed beneath each heading constitute the answer to the question indicated by the heading title. The order of the question series provided an automatic grouping of the factors according to the directness of their relationship to the budget. The table reads horizontally from left to right.

Discussion of Factors

The purpose of the following discussion was to clarify the relationships shown in TABLE 2 and to complete step two of the procedure. All component factors listed in the table, except cost of the yearly land need, were derived from the Texas State Parks Research Committee's

TABLE 2

COMPONENT AND INFLUENTIAL FACTORS OF THE YEARLY ACQUISITION BUDGET

	Question One	Question Two	Question Three	Question Four
ACQUISITION BUDGET	total amount of land needed per year for acquisition	amount of land needed per year for development expansion in recreation parks	attendance at state parks	recreation demand*
				other recreation development*
			attendance capacity of an acre	type of land*
				length of season*
				standards of facility design*
			acreage currently available for development expansion in recreation parks	
		amount of land needed per year for the undeveloped portion of recreation parks	developed to undeveloped acreage ratio	type of land*
				standards of the system*
				public opinion*
		amount of land needed per year for historic and scenic preservation		
		additional amount of land needed per year		
	cost of the yearly land need	market value of land needed*	normal increases in land value*	location*
				type of land*
			competion for land*	alternate use*
			land quality*	kind of park*
			fluctuations in land value*	local, state, and national economics*
			kind of title conveyance*	

*Influential factors

general report on the proposed long-range plan for the Texas State Parks System. Unless otherwise noted in the discussion, the influential factors were determined by the author.

Component factors

The definition of the yearly acquisition budget indicated that the budget was composed of two basic factors: total amount of land needed per year for acquisition and cost of the yearly land need. All other factors were found to be related to these two.

Cost of the yearly land need

Although the market value of a particular property would be influenced by the factors listed in TABLE 2 opposite market value of the land needed, the influential factors could not be used to determine the actual cost of a property. The actual cost of a particular property to the state, disregarding condemnation proceedings, would be equal to the value (price) placed on the property by its owner. Hence, cost of the yearly land need was defined as being equal to the sum of the actual prices of the individual properties cited for acquisition during the year. As a result of the definition, it was concluded that cost of the yearly land need was an independent component factor of the yearly acquisition budget.

Total amount of land needed per year for acquisition

In contrast to the preceding factor, the component factor total amount of land needed per year for acquisition, as shown in TABLE 2, was found to be dependent upon four other component factors. Two of

these were shown to be independent, and two were shown to be dependent upon other component factors. Each factor will be discussed separately below.

Amount of land needed per year for development expansion in recreation parks.--The division of recreation park acreage into two parts was necessitated by the converse forms of recreation provided by each portion. The developed portion was reported to offer active types of recreation. Some of the active types of recreation, such as camping and picnicking, require the use of facilities, while others, such as swimming, foster rather large concentrations of people on small areas. Due to these characteristics of active types of recreation, park planners have found it convenient to devise general acreage design standards that state how much land is needed by a park visitor, or group of park visitors, for the enjoyment of the various active types of recreation. For example, the acreage design standard for camping has been stated as one-fourth acre per campsite, or four campsites per acre.

It was reasoned that if an established acreage design standard for a certain kind of facility was multiplied by the average number of people that normally use that facility at one time, the average number of people that could be accommodated on an acre of land developed for that facility would be determined. Furthermore, if the total number of people that were using that kind of facility in a park was divided by the number of people that could be accommodated on an acre of land developed for that facility as determined above, the number of acres required in the park for the development of the facility would result.

Thus, the author concluded that this mathematical relationship could be used to determine the amount of land needed for development expansion in recreation parks.

However, only the basic principle of the relationship was deemed useful. It was found that the established acreage design standards for various facilities had been devised arbitrarily. Although the standards account for the park visitor's comfort, they do not consider the biological and geophysical characteristics of a particular site. According to the acreage design standard for camping, four campsites could be established on any acre of park land regardless of whether the acre could sustain the resulting visitor usage. The author decided that such standards could not be used in a control method that was to be designed to promote an efficiently operating parks system. A more accurate standard had to be found.

The general report of the Texas State Parks Research Committee stated that acreage requirements for the development of various kinds of facilities could be accurately determined by relating a particular facility's attendance to what was called the facility's attendance capacity of an acre.[19] An accurate measurement of attendance for various kinds of facilities was reasoned to present no insurmountable problems when the devised control method was implemented, but the attendance capacity of an acre, a rather new concept, warranted further

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[19]Texas Technological College, Department of Horticulture and Park Management, "Texas State Parks," pp. 7-9.

investigation. If an accurate value for the factor was indeterminable, the factor, like the preceding one, had no place in the formulated control method. Fortunately, it was found that a value could be determined.

"Carrying capacity of an acre," as the factor was called in the report investigated, was declared to be dependent upon the biological characteristics of a site, as well as acreage design standards. A determination of the factor's value was said to be influenced, primarily, by the type of land, the kind of facility, and the length of the park visitation season. As used in the report, type of land referred to soil and vegetative-cover types. The term, interchangeable with land type, was given the same meaning in this thesis.

An exact method for determining the attendance capacity of an acre for different kinds of facilities in different land types and for different visitation season lengths was not defined in the report, but a possible means was suggested. The method proffered was a systematic observation of the changes in land appearance that might occur at various parks in different land types when varying combinations of facilities and visitation season lengths were experienced.[20]

After the foregoing findings were deliberated, the author concluded that attendance at state parks and attendance capacity of an acre were two component factors of the amount of land needed per year

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[20]S. T. Dana, Research in Forest Recreation (Washington: U. S. Department of Agriculture, Forest Service, April, 1957), pp. 22-23.

for development expansion in recreation parks. It was decided that the gross amount of land needed per year for acquisition for development expansion in recreation parks could be resolved by the proper manipulation of current and estimated attendance data and values for the attendance capacity of an acre. In turn, the net acreage needed per year for acquisition could be determined by deducting, from the gross need, the acreage currently available for development expansion in recreation parks.

Amount of land needed per year for the undeveloped portion of recreation parks.—Contrasted to the active types of recreation offered in the developed portion of state recreation parks were found the passive or contemplative types of recreation offered by the undeveloped portion of these parks.[21] Because these passive types of recreation generally were noted to require no facilities and the acreage requirements for the enjoyment of the beauty of a scene or the feeling of being alone were resolved to be unknown,[22] it was decided that undeveloped acreage needs would have to be based on factors other than attendance and attendance capacity of an acre. In order to keep the resulting control method aligned as closely as possible with the proposed long-range plan for the Texas State Parks System, the author elected to follow the pattern used in the plan for determining the

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[21]Texas Technological College, Department of Horticulture and Park Management, "Texas State Parks," p. 8.

[22]E. J. Urbanovsky, Speech to the American Society of Landscape Architects Convention, Pittsburg, Pennsylvania, June 25, 1963.

amount of land needed for the undeveloped portion of recreation parks.

For reasons similar to those mentioned in the preceding paragraph, the Texas State Parks Research Committee, in its report, intimated that undeveloped acreage needs could be reasonably determined by devising a ratio between undeveloped and developed acreage needs.[23] Such a ratio would maintain a relationship, even though indirect, between undeveloped acreage needs and a measurable public demand factor (attendance). This kind of relationship was previously defined as being most desirable in any control method.

Although the general report of the Committee presented a fixed ratio between the developed and undeveloped acreage needs, a later Committee report on individual park planning clarified the true nature of the ratio by stating that the ratio could vary according to land type (vegetative cover type) when applied to individual situations. According to the report, the ratio could be smaller in densely vegetated areas than in areas of sparse vegetative cover.[24] Similarly, the ratio could be smaller in areas that have undulating topography than in areas that have even topography. This variable nature was assigned to the ratio factor shown in TABLE 2.

A deliberation of the preceding data resulted in the conclusion

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[23]Texas Technological College, Department of Horticulture and Park Management, "Texas State Parks," pp. 4, 9.

[24]Texas Technological College, Department of Horticulture and Park Management, "Suggested Master Plan for a Proposed Town Bluff State Recreation Park at Dam 'B' Reservoir, Neches River Basin, Town Bluff, Texas." Unpublished report, January, 1963.

that the developed to undeveloped acreage ratio factor was an independent component factor of the acquisition budget. This meant that the total effect of the factors influencing the ratio would be resolved, by judgment and measurement, into a definite number that could be entered into a formulated control method. When the amount of land needed for development expansion in recreation parks was multiplied by the number, the total amount of land needed for the developed and undeveloped portions of recreation parks would be obtained.

Amount of land needed per year for historic and scenic preservation.—A consideration of the criteria for historic and scenic parks (see Appendix A) revealed that the yearly acreage requirements for those parks could not be related to a measurable public demand factor either directly or indirectly. Because the criteria specified that no two of the parks should preserve the same unusual or significantly characteristic feature, the author reasoned that an increase in attendance at a park preserving one feature could not be construed to indicate the feasibility of acquiring a park that would preserve a completely different feature. Thus, the use of attendance as a basis for determining yearly acreage requirements for historic and scenic preservation was overruled.

Since the primary purpose of scenic and historic parks was stated as being the preservation of the state's outstanding scenic and cultural features, the author concluded that the yearly amount of land needed for historic and scenic preservation could best be determined by properly qualified consultants or personnel of the parks system.

These experts would be more aware than the general public of what features were worthy of preservation and of the danger of those features being destroyed. As was reported in the proposed long-range plan for the Texas State Parks System, the unique features in Texas need prompt acquisition before destruction or spoliation.[25] Hence, the yearly acquisition rate of the features was designated a judgment decision and was placed in TABLE 2 as an independent component factor of the yearly acquisition budget.

Additional amount of land needed per year.—If a control method was assembled from the information thus far deliberated and put into effect, the resulting yearly acquisition budget would provide only enough land each year to accommodate the yearly increase in park visitation and to preserve certain unique features. Although the control method's prime purpose of providing a yearly determination of land needs based on public demand would be realized, the method would have no value in fulfilling short and long-range plans, which is another function of control. Thus, it would seem that such a control method would constitute only a partial answer to the overall problem.

As shown in TABLE 1, the proposed long-range plan for the Texas State Parks System recommended that most of the state park land, which was estimated to be needed by the year 2000, be acquired during the first fifteen years of the thirty-seven year period covered by the

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[25]Texas Technological College, Department of Horticulture and Park Management, "Texas State Parks," p. 10.

plan. The recommendation was made to assure that the park land would be obtained before it was preëmpted by other uses and while present land prices were reasonable as compared to probable future prices for the same land unit.[26] In order to incorporate the expediency of this suggestion into the control method, and thus render the method suitable for the accomplishment of the long-range plan, the author devised the independent component factor entitled additional amount of land needed per year. This additional acquisition factor was considered to be a judgment decision.

Because of the nature of the additional acquisition factor, the author realized that injudicious use of the factor could destroy any semblance of control in the method that was finally devised. Most control processes, however, were found to contain similar factors and for this reason, effective control was often said to be directly dependent upon "alert and capable management."[27] It was found that "no control system yet developed has been so skillfully designed as to eliminate the necessity for the presence of superior executive talent in every major . . . decision."[28]

After deliberating these findings and the inherent nature of the concerned factor, the author concluded that the responsibility of deciding the numerical value of the factor should probably be given to

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[26] Ibid., p. 17.

[27] Sord and Welsch, Business Budgeting, p. 322.

[28] Ibid.

the Board of Directors of the state parks system.[29] A judicious decision concerning the factor's value could be made after carefully weighing the economic influential factors shown in TABLE 2 and the trend in needed acquisition which could be obtained from the primary part of the devised control method.

Influential factors

During the course of the preceding deliberations, the author noticed that the influential factors shown in TABLE 2 were more vital to the operation of the control method than to the derivation of it. Since the effect of the influential factors on the attendance capacity of an acre and the developed to undeveloped acreage ratio was noted previously, it seemed that a cursory examination of the other influential factors was warranted in this section.

A consideration of the influential factor entitled recreation demand, which is related to attendance at state parks, revealed that because recreation demand was a causal agent of attendance at state parks, attendance was a measure of the demand for the types of recreation offered in state parks. The importance of this relationship was that it proved attendance to be a direct reflection of a public demand factor. As stated before, control should be based on a measurable public demand factor; hence, accurate attendance measurements were considered to be a sound basis for the control method determined.

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[29] W. M. Gosdin (Superintendent of Grounds Maintenance, Texas Technological College) to P. E. Schlimper, interview, July 12, 1963.

Knowledge of the second influential factor relating to attendance at state parks, other recreation development, was important in the control method when estimates of yearly attendance to a particular state park were being made. If it was known that a new recreation development was to be opened in the immediate vicinity of a park during the coming year, the supposed effect of this new development on the expected yearly attendance at the established park should be accounted for by adjusting the park's attendance estimate.

The influential factors related to cost of the yearly land need were previously shown to be valuable aids in deciding the extent of the yearly additional acquisition factor. The author reasoned that if such factors as normal increases in land value, land competition, and current fluctuations in land value were resolved for each park region and for specific areas within each region, the central office of the parks system could assign a different additional acquisition factor to each region, possibly every year, depending upon where the state would get the best return for its land investment dollar that particular year. Of course, these "best return" considerations should be made only among regions exhibiting similar demand characteristics. The factors were also resolved to be valuable for establishing the estimated cost of land needs in the event that the prices of certain properties were not fixed at the time that preparation of the acquisition budget was begun.

Independent Variables of the Yearly Acquisition Budget

Throughout the "Discussion of Factors," certain of the factors shown in TABLE 2 were concluded to be independent component factors of the yearly acquisition budget. In each case it was shown that they had achieved this distinction because they either numerically reflected the value of their corresponding influential factors or were needed for the solution of a land need amount or both, or were independent factors in themselves. The factors thus named or variations of them were designated the independent variables of the yearly acquisition budget. Grouped in the order of their appearance in the discussion, they were: cost of the yearly land need, attendance at state parks, attendance capacity of an acre, developed to undeveloped acreage ratio, amount of land needed per year for historic and scenic preservation, and additional amount of land needed per year.

Method of Controlling the Yearly Acquisition Budget

After defining the independent variables of the acquisition budget, completion of the third and last steps of the procedure was undertaken. In keeping with the first criterion for the formulated control method, which was stated in METHODS AND PROCEDURES, attendance at state parks was selected as the basis for control. The second criterion was realized by placing the devised series of control formulae into three groups according to the managerial levels within the proposed Texas State Parks System organization at which the formulae

should be solved. The third criterion was heeded by keeping the judgment decisions in the method to a minimum and by assigning the responsibility for making the necessary decisions to the higher levels of management where the overall interests of the parks system would be known and where the required survey and research data would probably be processed.

The noted influence of various land types, for example, pine forest, plains, oak forest, etc., on the attendance capacity of an acre, the developed to undeveloped acreage ratio, and the cost of land made it necessary to qualify the factors used in the control method by land type. The different acreage capacity design standards for the different facilities found in state parks and the intention of devising a control method that would give evidence of any demand changes required that the factors also be qualified by facility type in the early stages of the control process.

In formulating the control method, the author decided to let:

X_{hijk} = developed acreage needed for acquisition for the coming year for facility k in park j in land type i in region h

Y_{hi} = total acreage needed for acquisition during the coming year in land type i in region h

Z_{hi} = cost of the acreage needed for acquisition during the coming year in land type i in region h

where:

h = one to m different state park regions

i = one to n different land types

j = one to o different state parks

k = one to p different kinds of facilities

Control Process at the Park Level

Formulated Method

$$\text{(A1)} \qquad X_{hijk} = \frac{(V_{hijk} - C_{hijk}) + (\hat{V}_{hijk} - V_{hijk})}{c_{ik}} - x_{hijk}$$

where:

X_{hijk} = same as previously defined

V_{hijk} = actual attendance for current year for facility k in park j in land type i in region h

C_{hijk} = current park capacity for facility k in park j in land type i in region h

$\hat{V}_{hijk}$ = estimated attendance for coming year for facility k in park j in land type i in region h

c_{ik} = attendance capacity of an acre for facility k in land type i

x_{hijk} = undeveloped acreage available for development expansion of facility k in park j in land type i in region h

Discussion

Formula A1 was placed at the park level to give each park manager an active part in the control process. It was discovered that if some of the responsibility for control was delegated to the lower managerial levels, the personnel at these levels would strive to collect accurately the basic data needed for control and would make earnest efforts to render the control process effective.[30] Another reason for assigning

[30]Sord and Welsch, Business Budgeting, pp. 339-341.

the formula's solution to the park managers was that they would know better than anyone in the organization the attendance characteristics of their parks. The author decided that with proper training, they could make the most accurate estimates of yearly park attendance. Still another reason for placing the formula at the park level was that all the values needed to solve the formula, with the exception of c_{ik}, probably would be determined by the park managers since they would collect the data that would be necessary to assign the component values. The value of c_{ik}, as implied in the preceding deliberations, would be determined by the research division of the parks system.

It was evident that all the factors shown in the formula, except x_{hijk}, would have to be expressed in the same unit, that is, either visitor-days per year, visitors per day, or some similar unit. After the problem of expressing the factor values was considered, the author concluded that a day basis unit probably would be the most convenient. The conclusion was supported by noting that the primary purpose of acquiring park land is to provide enough land to accommodate the people visiting the parks on an average, heavy-use <u>day</u>. The feasibility of using a day basis was further supported by the observations that attendance data would be collected on a day basis and the calculation of a park's current capacity (C_{hijk}) would be simpler on a day basis.

Formula A1 was designed to correct automatically any inaccurate estimates made in an immediately preceding year's acreage determination

by the incorporation of the factor combination ($V_{hijk} - C_{hijk}$). For example, if the actual attendance at a park (V_{hijk}) was larger than the park's actual capacity (C_{hijk}) in a specific year, the factor combination would yield a positive value which would indicate that the past year's expected visitation increase was low. When this positive value was added to the expected visitation increase for the coming year ($\hat{V}_{hijk} - V_{hijk}$), the inaccurate estimate that was made the past year would be compensated. If the actual attendance at a park was smaller than the park's actual capacity in a specific year, the factor combination would operate in a reverse fashion.

Since the divisional part of the formula was noticed to yield only the amount of land needed for development expansion, the factor x_{hijk} was originated and made to combine with the result of the division in order to obtain the actual amount of land that would be needed for acquisition for development expansion. The dependent variable of the formula could result in a plus, zero, or minus value depending upon whether the particular park did not have enough land for development expansion, had just enough land for development expansion, or had more than enough land for development expansion.

As indicated, the formula should be solved for each kind of facility in each park in the system. The factors were qualified by a land type subscript to account for the possibility that one park could contain two or more different land types. Upon completion of the formula, the results would be reported to the regional offices.

Control Process at the Regional Level

Formulated Method

After receiving the values of the factor X_{hijk}, the regional personnel would compute:

$$\text{(A2)} \qquad \sum_{jk} X_{hijk}$$

which is the developed acreage needed for acquisition during the coming year in land type i in region h;

$$\text{(A3)} \qquad Y_{hi} = \left[\left(\sum_{jk} X_{hijk}\right)(d_{hi}) + s_{hi}\right] F_{hi}$$

where:

Y_{hi} = total acreage needed for acquisition during the coming year in land type i in region h

$\sum_{jk} X_{hijk}$ = same as previously defined

d_{hi} = developed to undeveloped acreage ratio factor for land type i in region h

s_{hi} = acreage needed for standard service facilities in land type i in region h

F_{hi} = additional acquisition factor for land type i in region h

After formula A3 was completed, the next step in the control process was defined as the selection of various parcels of land within each region and within the specified land type whose acreage sum would equal Y_{hi}. The cost of acquiring each parcel that was selected was then to be ascertained. These parcel costs would be summed according to land type i and region h to yield

$$\text{(A4)} \qquad Z_{hi}$$

which is the cost of the total acreage needed for acquisition during the coming year in land type i in region h.

To determine the cost of the total acreage needed for acquisition during the coming year in region h, the summations

$$\text{(A5)} \qquad \sum_{1} Z_{hi} + b_h$$

would be calculated, where b_h is the cost of the acreage needed for scenic and historic preservation during the coming year in region h.

Discussion

Despite the number of control formulae grouped at this managerial level, the primary function of the regional offices in the control process was resolved to be that of locating and pricing the various parcels of land that would make up the value of Y_{hi} and that would be suggested for acquisition. In accomplishing this task, the author assumed that the regions would work closely with the fiscal office of the parks system and also with the park managers, who should know about the availability and price of land in their particular locale.

As indicated by the formula factors, most of the information needed to solve the formulae at this level, except costs, would be reported to the regions by the park managers or by the central office. With reference to formula A3, previous deliberations, which were reported in "Discussion of Factors," revealed that the value of the factor designated d_{hi} should be determined by the research division of the parks system. The value of the factor s_{hi} would be determined solely from data in the acreage need reports of the park managers unless a new park was being opened. In the event that a new park was being opened, part of the factor's value would be composed of data taken from acreage need reports given to the region by the central

planning division. The term standard service facilities included such facilities as roads, trails, visitor centers, and interpretive displays. The author reasoned that since the determination of the acreage needed for these facilities would necessarily be controlled by the result of formula A1, an actual demand control basis was not needed for them.

The determination of a value for factor F_{hi}, as was previously shown, was designated a possible function for the Board of Directors of the parks system. Hence, it would be relayed to the region by the central office. Its position in the formulated control method showed clearly the importance of using the factor prudently.

Like summation A2, summations A4 and A5 were devised to show how the data that was collected should be grouped. The author decided that the value of the factor designated b_h probably would be determined by the regional office, but the actual location of the various scenic and historic areas needed for acquisition in any one year would be ascertained by the interpretive planning division of the state parks system.

After the cost of the total acreage needed for acquisition during the coming year was determined for each region, the regions were scheduled to report its value and that of Y_{hi} to the central office.

Control Process at the Central Level

Formulated Method

Upon receiving the two values mentioned above, the central office

personnel would compute the summations:

$$\text{(A6)} \qquad \sum_{hi} Y_{hi}$$

which is the total acreage needed for acquisition during the coming year for the proposed Texas State Parks System; and

$$\text{(A7)} \qquad \sum_{hi} Z_{hi}$$

which is the cost of the total acreage needed for acquisition during the coming year for the proposed Texas State Parks System.

Discussion

The intricate pattern of the control method required that the varied activities of the central level in the control process be indicated sporadically throughout the preceding discussion. Because the functions would be difficult to understand if taken out of the context, they were not repeated in this subsection.

The summations designated A6 and A7 would yield the overall acquisition need for the parks system for the coming year. This acquisition need was not considered the acquisition budget that would be presented to the legislature, but rather the acquisition budget defined at the beginning of this thesis. The author realized that the actual acquisition budget request could be less than what was reportedly needed. It was noted, however, that the request should not be more than the reported need. If it was, the purpose of the devised method would be defeated.

Component and Influential Factors of the Yearly Development Budget

A procedure identical to the one outlined for determining a method of controlling the yearly acquisition budget of the proposed Texas State Parks System was followed in determining a method of controlling the yearly development budget. Because the two budgets were based on essentially the same component and influential factors, the presentation of the development budget control method was simplified considerably. For continuity and clarity, the section and subsection headings used to present the method of controlling the yearly acquisition budget were retained for presenting the method of controlling the yearly development budget.

Tabulation of Factors

The factors that were resolved to be a component of, or to have an influence on, the yearly development budget were listed in TABLE 3. The table's design was made to parallel that of TABLE 2.

Discussion of Factors

Component factors

The definition of the yearly development budget, like that of the yearly acquisition budget, indicated that the budget was composed of two basic factors: total number of facilities needed for development per year and cost of the yearly facility need. All the other factors, as shown in TABLE 3, were related to these two.

TABLE 3

COMPONENT AND INFLUENTIAL FACTORS OF THE YEARLY DEVELOPMENT BUDGET

	Question One	Question Two	Question Three	Question Four
DEVELOPMENT BUDGET	total number of facilities needed per year for development	amount of land needed for development expansion	attendance at state parks	recreation demand*
				other recreation development*
			attendance capacity of an acre	type of land*
		facility capacity of an acre		length of season*
				standards of facility design*
	cost of the yearly facility need	unit cost of the facilities	labor costs	location of park*
				kind of facility*
			material costs	quality of facility*
				kind of facility*
			transportation costs	location of park*

*Influential factors

Cost of the yearly facility need

A deliberation of this basic factor led to the conclusion that the cost of the yearly facility need could be determined by multiplying the total number of facilities needed for development per year by the unit cost of the facilities. The value of the unit cost, as shown in TABLE 3, was considered to be made up of the component factors entitled labor costs, which included the cost of site preparation for the facility development; material costs; and transportation costs. Since the numerical value of unit cost would indicate the effect of the related component factors, unit cost was designated an independent component factor. The author concluded that when used in the control method, its value would have to be estimated. The actual unit cost of any particular facility would be determined through the standard public bid process used by the state. Because the call for bids could not be issued by the parks system until its budget was approved, actual costs could hardly be shown in the budget.

Total number of facilities needed per year for development

When the component factors of this basic factor were recorded in the table, the author noticed that all of them, except facility capacity of an acre, had been recorded previously in TABLE 2. The author also noticed that the divisional part of the yearly acquisition budget control formula A1 yielded the amount of land needed per year for development expansion (see p. 33). During the compilation of TABLE 3, it was decided that by multiplying the number of acres needed per year for development expansion by the facility capacity of an acre, which

is attendance capacity of an acre expressed in terms of facility units, the total number of facilities needed for development per year could be determined. Thus, the author concluded that by combining the basic control formula devised for the acquisition budget with the independent component factor facility capacity of an acre, the basic control formula for the development budget would be obtained. The combination made the development budget dependent upon the measurable public demand factor of attendance just as the acquisition budget was. This eliminated the necessity of collecting different sets of data in order to determine the two budgets.

Influential factors

Because the influential factors related to attendance at state parks and attendance capacity of an acre were examined when the method of controlling the acquisition budget was devised (see pp. 27-28), reconsideration of them was not necessary in this part of the investigation.

An examination of the component factors related to the unit cost of the facilities revealed that they were primarily influenced by the kind of facility being developed and the location of the park in which the development would occur. This discovery suggested that the formulated control method should place the estimation of facility development costs at the park level. The discovery also indicated that separate cost estimates would have to be made for each kind of facility.

Further deliberation concerning the influence of park location on development cost disclosed that the type of land being developed would

have a bearing on the cost. The author knew from experience that park road construction particularly would vary with land type. It seemed that the development cost of picnicking and camping facilities, too, would vary with land type because of labor costs for land clearing and the cost differences among the various types of construction materials required in different land types. From these deliberations, the author concluded that the factors used in the determined control method should be qualified by land type as well as kind of facility and specific state park.

Independent Variables of the Yearly Development Budget

The independent component factors or variations of them which were resolved to be independent variables of the yearly development budget were: unit cost of various facilities, attendance at state parks, attendance capacity of an acre, and facility capacity of an acre.

Method of Controlling the Yearly Development Budget

The criteria for the formulated control method, which were specified in METHODS AND PROCEDURES, were fulfilled in devising this control method in the same way that they were in formulating the acquisition budget control method. A similar scheme of mathematical notation was also used.

In formulating a method of controlling the yearly development

budget, the author decided to let:

A_{hijk} = acreage needed for development expansion during the coming year for facility k in park j in land type i in region h

U_{hijk} = number of facility k units needed for development during the coming year in park j in land type i in region h

W_{hijk} = cost of facility k units needed for development during the coming year in park j in land type i in region h

where:

h = one to m different state park regions

i = one to n different land types

j = one to o different state parks

k = one to p different kinds of facilities

Control Process at the Park Level

Formulated method

$$\text{(D1)} \qquad A_{hijk} = \frac{(V_{hijk} - C_{hijk}) + (\hat{V}_{hijk} - V_{hijk})}{c_{ik}}$$

where:

A_{hijk} = same as previously defined

V_{hijk} = actual attendance for current year for facility k in park j in land type i in region h

C_{hijk} = current park capacity for facility k in park j in land type i in region h

$\hat{V}_{hijk}$ = estimated attendance for coming year for facility k in park j in land type i in region h

c_{ik} = attendance capacity of an acre for facility k in land type i

$$\text{(D2)} \qquad U_{hijk} = (A_{hijk})\, u_{hijk}$$

where:

U_{hijk} = same as previously defined

A_{hijk} = same as previously defined

u_{hijk} = facility capacity of an acre for facility k in park j in land type i in region h

$$\text{(D3)} \qquad W_{hijk} = (U_{hijk})\, w_{hijk}$$

where:

W_{hijk} = same as previously defined

U_{hijk} = same as previously defined

w_{hijk} = unit cost of facility k in park j in land type i in region h

Discussion

Because the independent variables of formula D1 had been discussed previously (see pp. 32-33), repetition of the discussion was not considered necessary. The noticeable difference between this formula and formula A1 used in the acquisition budget control method was that the symbol for the dependent variable was changed and the factor entitled undeveloped acreage available for development expansion of facility k in park j in land type i in region h (x_{hijk}) was eliminated. The factor x_{hijk} was taken out of the formula so that the solution of the formula would yield the acreage needed for development expansion instead of the developed acreage needed for acquisition. This change in resultant values, of course, necessitated changing the dependent variable's symbol.

Although the factor x_{hijk} was removed from the formula, it was not cast aside. After formula D1 was solved, the value of A_{hijk} was to be compared with the value of x_{hijk}. If the comparison showed that park j did not have acreage available for the expansion of facility k, the fact was to be reported to the regional office. The region, in turn, would report the deficiency to the operations division at the central office. The personnel there would decide whether the deficiency was serious enough to cause the opening of a new park in the reporting region or to warrant the expansion of the park reporting the land shortage. A positive result from the comparison of A_{hijk} to x_{hijk} was a basis for the park managers to complete formulae D2 and D3.

The characteristics of facility costs, which were noted previously, required that independent development cost estimates be made for each park and for each facility in each park. This being the case, the author assigned the cost estimate determinations to the park level. It was reasoned that the estimates would be made by the park manager and would be subject to review by the regional office. Once the park manager had calculated the number of each kind of facility that was needed for development in his park (formula D2), he would multiply the number by the approved unit cost estimates (w_{hijk}) to obtain the extent of his development budget (formula D3). It was decided that by keeping the development budget determination at the park level, each park manager, after the overall system development budget was approved, would have a detailed plan of operations for the coming year. The results of formulae D2 and D3 were scheduled to be reported to the regional office.

Control Process at the Regional Level

Formulated method

The regional office personnel would first compute the summation

$$\text{(D4)} \qquad \sum_i U_{hijk}$$

which would yield the number of units of facility k needed for development during the coming year in park j in region h.

The next process would be to calculate the summation

$$\text{(D5)} \qquad \sum_{jk} W_{hijk} + \sum_j S_{hij}$$

which would result in the cost of all facilities needed for development during the coming year in land type i in region h (W^*_{hi}),

where:

$\sum_{jk} W_{hijk}$ = cost of all attendance related facilities needed for development during the coming year in land type i in region h

$\sum_j S_{hij}$ = cost of standard service facilities needed for development during the coming year in land type i in region h

The final summation at the regional level would be

$$\text{(D6)} \qquad \sum_i W^*_{hi}$$

which is the cost of all facilities needed for development during the coming year in region h.

Discussion

Although one function of the regional office, that of reviewing the cost estimates made by the park managers, was stated in the preceding discussion, the regional offices' primary function was designated as determining the cost of the standard service facilities needed

in each park. The determination of the quantity of standard service facilities was resolved to be a function of the central planning division, but the cost determination appeared to be more reasonable placed at the regional level. This decision resulted from the observation that the regional personnel would be more aware of the cost peculiarities in their regions than would be the personnel of the central office and would have better access to information concerning the cost of such items as roads and buildings than the park managers would have. In addition to the regional offices being better suited to estimate the factor S_{hij}, the factor was assigned to the regional level to assure that the regional offices would review the development need determinations of each park in the particular region.

As previously stated, the calculation of the quantity of standard service facilities needed in each park was designated a function of the central planning division. The designation was supported by the reasoning that the planning division would draw the actual layout plans for the needed facility development in each park. Thus, during the course of drawing the plans, the amount of road that would be needed in a park as a result of its reported development expansion need, the number of restrooms that would be needed for the reported campsite need, and similar standard service facility needs would be determined.

It seemed obvious, however, that before the planning division could compose development layouts for each park, the personnel would have to know the needs of each park. Formula D4 was devised to supply

the needed information. The regional office would solve the formula, report the results to the planning division, and receive a report on the quantity of standard service facilities needed in each park as indicated by the number of facility units needed. The cost of the standard service facilities was then to be estimated and the solution to formula D5 completed. The results of formula D6 would be reported to the central office.

Control Process at the Central Level

Formulated method

The central office personnel would complete the expression

$$\text{(D7)} \qquad \sum_{hi} W^{*}_{hi}$$

which is the cost of all facilities needed for development during the coming year in the proposed Texas State Parks System.

Discussion

Since there were no major judgment decisions in the formulated method of controlling the development budget, the central level was not as visibly engaged in the process as it was in the acquisition budget control process. When this stage of the formulation was completed, the author found that the extent of development was controlled essentially by the attendance basis. Hence, the central level was generally regarded as a cost consultant for the lower levels and as an examiner of the cost determinations.

The only formulated control process assigned to the central level was the summation D7. The resultant cost was concluded to be the

overall development budget. Similar to the case of the acquisition budget, this formula was designed to yield the cost of development need. Determining the extent of the budget that would be presented to the legislature was deemed the major task of the central office and a problem not within the scope of this thesis. The decision solved by this control method was the upper limit of the budget. As before, it was concluded that although the budget presented to the legislature could be less than the determined cost, it should not exceed the determination. The entire control effort would be worthless if the determined needs were exceeded. Ideally, the budget presented to the legislature should be the budget determined by a method of control.

CHAPTER IV

CONCLUSION

The evidence and rationale presented in this thesis have demonstrated that the resulting formulated control process would be a sound method for controlling the yearly acquisition and development budgets of the proposed Texas State Parks System. It has been shown that the method would not only provide for a more efficient operation of the proposed state parks system, but it would also contribute to a controlled fulfillment of the system's proposed long-range plan through judicious use of the additional acquisition factor (F_{hi}).

Other than the correction factor ($V_{hijk} - C_{hijk}$), the method possesses no inherent characteristics that will make it function properly regardless of how it is used. The author has said repeatedly that alert, capable management is a prerequisite to the proper operation of the method. Likewise, the use of accurate data has been said to be a requisite for obtaining acceptable results from the formulated method. If those two requirements are fulfilled, the result of the thesis is a workable means of controlling the yearly acquisition and development budgets of the proposed Texas State Parks System.

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APPENDIX A

PROPOSED CRITERIA FOR TEXAS STATE PARKS*

Recreation Parks

1. Should provide for adequate non-urban recreational opportunity for a large number of people.

2. Should have recreation as a keynote, but should also have beautiful scenery and as much native area as possible.

3. Minimum size should be 1,000 acres.

4. Should be located with regard to the population, no more distant than would be traveled by a "day user" of the park.

5. Should provide only non-urban recreational activities.

Scenic Parks

1. Areas which best portray the natural processes that have formed the earth and its plant and animal life.

2. Areas which portray some specific natural process so dramatically and interestingly as to be unique, or of sufficient state-wide interest.

3. Areas remaining which best portray specific biological objects or conditions.

Historic Parks

1. Areas should be of state-wide historical interest and significance.

2. History should dominate, but recreation and nature represented.

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*Excerpt from Texas Technological College, Department of Horticulture and Park Management, "Texas State Parks," p. 4.

3. Minimum size should be 400 acres.

4. No two historic parks should commemorate the same feature, event, or person.

Historic Sites

1. Feature should be of state-wide historical interest and significance.

2. Site should be large enough to encompass the feature.

3. Historical interpretation should be the only feature.

4. Feature should not duplicate that of a state historic park.