THE DALLAS-FORT WORTH REGIONAL TRANSPORTATION STUDY:
A CASE STUDY IN INTERGOVERNMENTAL RELATIONS

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By

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CHAPTER I

INTRODUCTION

The Congress of the United States considers it in the national interest to promote the development of "transportation systems embracing various modes of transportation" with the cooperation of states and their agencies. Therefore, billions of dollars are appropriated every fiscal year by the Congress and spent cooperatively with the states for planning, improvement and construction of existing and future transit facilities.

The period since World War II has shown dynamic rates of growth in all aspects of American life, including industry, business and population. The higher the rate of growth in the nation's economy and population, the greater is the need for improvement and construction of different modes of transportation. It is not possible by ad hoc, haphazard and spur-of-the-moment planning to develop a modern system of highways capable of providing for transit needs of the present and for future years. It requires years of research and planning in advance to meet adequately the accelerated growth of transportation needs of people and goods. Therefore, federal, state and local governments spend increasingly more
every year on highway planning projects to determine, as much as twenty years in advance, the rapidly growing transit needs. The significance of comprehensive highway research and planning can be judged by the fact that every piece of highway legislation passed since the end of World War II has emphasized the need and importance of advance highway planning. In addition, in response to the federal acts' requirements, states and their agencies have cooperated with the Bureau of Public Roads throughout the country in recent years for the establishment of highway planning projects. Consequently, there were hundreds of such projects as of late 1966 in the country and nineteen in the state of Texas.

It is reasonably appropriate to infer, from the present federal and state highway policy trends, that there will be continuous and increasing needs for highway planning projects. Hence, one may also infer that increasingly more funds will be made available by governments for such projects. Continuity of highway planning projects is fairly well insured for a long time to come by the fact that Congress has adopted a policy in recent years requiring states to submit continuous and comprehensive transit plans in advance to qualify for federal highway aid.

The Dallas-Fort Worth Regional Transportation Study was established, in response to such a federal requirement, by
joint fiscal and administrative efforts of federal, state and local governments. Its purpose is to determine the present and the future transit requirements of seventy-six incorporated cities in nine counties in the Dallas-Fort Worth metropolitan area in the north central Texas region.* The study office for the project is located at Arlington, with the District Administrative or Planning Engineer as its co-ordinator and administrator for policies laid down by the Coordinating Committee, which is its policy-making body. The Coordinating Committee is composed of representatives from the various governmental units of the study area participating in the project. The budget for the study is approximately $1,000,000 for the three years' duration of the study. The study was started in January, 1964, and reached its completion in the month of November, 1966.

The primary purpose of this thesis is threefold: First is to describe and evaluate the basic provisions of the major federal and state highway acts which have been basic to the establishment of the study. Second is to study and analyze the interpretation and application of these acts in the establishment, organization and administration of the Dallas-Fort Worth Transportation Study. Third is the study of the problems that arise in the process of developing a

*See Appendix, Map No. I for the geographical location and area under the study.
large and complex intergovernmental transportation study plan and recommendations for dealing with these problems.

A secondary purpose of this thesis is to study the organizational and personnel policies as adopted, evolved and executed by the District Administrative or Planning Engineer of the study. There are some unique and interesting aspects of the study in the development of these policies. All officials of the study at the management level were highly technically trained but had little training in the basic principles of organization and management. Personnel below the management level in the study office had inadequate training and experience for the technical planning jobs. Finally, there was not available any guideline for the development of the internal organization and personnel policies, as prior to this study there had not been undertaken such a large and complex comprehensive transit study by federal and state governments. Thus, this development of organizational and administrative policies may provide a model for such future studies.

The methodological approach for this thesis for the first three chapters has been library research. The next two chapters are based on extensive interviews with officials and personnel of the study office; examination of various office files including reports, correspondence, agreements, newspaper
clippings; and study of various State Highway Department
documents and publications.*

The material presented in the thesis is divided into six
chapters. Chapter I is based on a general introductory
statement, setting out the purpose and scope of the study
and the method or organization. Chapter II examines and
evaluates the major federal highway acts in their more im-
portant provisions. Attention is given to the basic purpose
and trends in the federal highway policies. Chapter III is
concerned with the major Texas highway acts. These acts are
observed and interpreted as responses to the federal highway
legislation seeking the general accomplishment of both
federal and state highway objectives. The chapter includes
consideration also of problems which arise out of inter-
governmental--federal, state and local--relations as each
pursues its respective highway objectives. Chapter IV
examines in detail the organizational and administrative
structure of the Dallas-Fort Worth study project. A detailed
account of its purpose, scope and the intergovernmental
financial arrangement of the study is given. Chapter V
analyzes the various power relationships in the intergovern-
mental relations in the development of the study and sets

*The author, who worked for the Dallas-Fort Worth Trans-
portation Study project for about two years, 1964-1965, was
given access to interviews with the officials and personnel
of the study office and at the same time to all the files,
records and other documentary material through the kind per-
mission of the District Administrative Engineer.
forth some of the problems that stem from such relationships. Chapter VI includes a summary of highway trends, the historical and social reasons for such trends and the significance of these trends and needs. Finally, recommendations are made for resolving some of the basic problems in intergovernmental relationships which unresolved may jeopardize and limit the effectiveness and efficiency of expensive and time-consuming comprehensive transportation studies.
CHAPTER II

MAJOR FEDERAL AID HIGHWAY LAWS

History and Comment

After the turn of the century, the public demand for better and more extensive highways was intensified by the invention and increasing use of automobiles as a mode of transportation. The Sixty-Second Congress, in response to such public demand, decided to inquire into the feasibility of federal aid for construction of highways in cooperation with states. In 1912, the Congress appointed a joint committee comprised of ten members--five members from the Senate Committee on Post Office and Post Roads and five members from the House Committee on Post Office and Post Roads--to study the need of federal aid for construction of post roads (8, p. 5). In addition, under the provisions of the Post Office Appropriation Act of 1912, Congress directed the Secretary of Agriculture and the Postmaster General to submit within a year a report based on the joint committee's information and recommendations "for a general plan of national aid for the improvement of postal roads in cooperation with the States and counties ..." (8, p. 6). It was in consequence of this report that the first major act
providing federal funds to states for construction of post roads was passed in 1916 by the Congress. A new era in the federal-state relationship was begun by the enactment of the Federal Aid Road Act of 1916. The Act not only provided the opportunities for the growth of a lasting federal-state relationship but also formed the basis for subsequent highway legislation which greatly enhanced, over a period of time, fiscal and functional activities of federal and state governments and their agencies in the establishment of a national highway system.

Federal Aid Road Act of 1916

The influence of the 1916 Act on intergovernmental relation goes beyond highway construction, as it established one of the first grant-in-aid programs which the federal government undertook and because it is still one of the most representative examples of that type of legislation (3, p. 57). One of its important features is the federal mandatory requirement for establishing state highway departments, where they did not exist at that time, in those states desiring to receive federal aid. Section 6 of the Act provides:

Any state desiring to avail itself of the benefits of this Act shall, by its State highway department, submit to the Secretary of Agriculture project statements setting forth proposed construction of any rural post road or roads therein (9).

The purpose of the departmental requirement was twofold. On the one hand, in order to receive federal funds, those
states which had no highway department at the time would expedite their efforts to establish such organizations; and on the other hand, it would be more effective, efficient and less complicated for federal agencies to administer federal aid programs by working with a single centralized organization than it would with numerous decentralized political subdivisions--counties and various municipalities--within a state.

Section 6 of the Act delegated a wide latitude of authority to the Secretary of Agriculture for carrying out practical aspects of the law. It provided: "The Secretary of Agriculture is authorized to make rules and regulations for carrying out the provisions of the Act" (8, p. 10). The law also provided a general framework within which the federal agency was granted an operational rule- and policy-making authority.

The Act called for states to match, with their own funds on a 50-50 basis, federal funds granted for highways.* A formula for distributing the federal funds among the states

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*There are two main federal aid highway systems that have been developed over the period of fifty years: The ABC and interstate highway systems. The ABC system includes primary roads made up of important state highways and secondary roads mainly comprised of farm-to-market roads. The interstate system includes urban highways and streets and also the highways which connect the major cities and production centers of the country. In the ABC system, states match federal funds on a 50-50 basis; in the interstate system the federal share is 90 per cent and the state share is 10 per cent (1, p. 15).
was established by one of the provisions of the Act which still forms the distribution basis for primary highway aid. It is based on the population, area and mileage of rural post routes. An initial amount of half a million dollars was appropriated for the year 1917. An aggregate sum of $75,000,000 was made available under the Act for the years 1917-1921 (8, p. 7).

There were some limiting clauses on the use of federal funds in the Act. Funds appropriated could only be used for construction purposes. A limit of $10,000 per mile was set as a federal participation regardless of the total cost of the project (8, p. 9). There was a prohibition against toll roads, which in the past had poor performance records and had failed in many states. The prohibition was not only because toll programs had been disappointing, but also in order to discourage states from neglecting construction and improvement of mail roads in preference for toll projects which states might undertake to earn additional revenues. Maintenance of the post roads constructed with the aid of federal funds was made the sole responsibility of states. In event of negligence and indifference by states in maintaining such roads, the Secretary of Agriculture was granted authority to suspend federal aid funds. The Act reads:

To maintain the roads constructed under the provisions of this Act shall be the duty of the States, or their civil subdivisions, according to the laws of the
several States. If at any time the Secretary of Agriculture shall find that any road in any State constructed under the provisions of this Act is not being properly maintained he shall . . . thereafter refuse to approve any project for road construction in said State, or the civil subdivisions thereof . . . (8, pp. 10-11).

In summarizing the effectiveness and influence of the first major federal highway act, as discussed in the foregoing pages, one may properly say that the Act of 1916 laid down some basic and sound foundations on which a nationwide highway system has been successfully developed.

Bureau of Public Roads

About 1890, with the completion of the railway system in the country, people became interested in information regarding good roads leading to railway stations for marketing farm produce and for travel purposes. Also around this time, nationwide bicycle clubs were formed, the "League of American Wheelmen," seeking information about good roads and their construction. Consequently, Congress, by the Appropriation Act of 1893, created the Office of Road Inquiry under the Secretary of Agriculture. Its primary duties were to research and study the methods of road building and publish information on the subject of roads and road construction.

The 1916 Road Act gave broad powers to the Department of Agriculture for administering federal funds for construction of highways. Consequently, activities of the Office
of Road Inquiry, which was then the main administrative federal agency for highways under the Secretary of Agriculture, were increased. After 1918, the Office of Road Inquiry became the Bureau of Public Roads; and it remained under the Department of Agriculture until 1938. Under Reorganization Plan I, in 1939, the Congress transferred the Bureau to the Federal Works Agency and renamed it the Public Roads Administration (6, p. 309). Again, under the provisions of the 1949 act which included effectuation of Reorganization Plan VII, the Public Roads Administration was transferred to the Department of Commerce as the Bureau of Public Roads where it remains as such to this date (6, p. 309).

The Bureau of Public Roads occupies, in the organizational hierarchy of the Commerce Department, a position immediately under the Bureau of Transportation.* Its headquarters office is located in Washington, D.C.; this includes offices for administration, planning, auditing and investigation. Field operation of the Bureau is assigned to regional and divisional offices, which are located at different places throughout the country. Their main responsibility is to carry out the decisions and policies made by the headquarters at Washington. In each state, the District of Columbia and Puerto Rico, there is a divisional office. These divisional offices, for administrative

*See Appendix, Organization Chart No. I.
purposes, are grouped into nine regional offices, which are situated at geographically convenient locations throughout the United States. The Regional Office for the Southwest is located at Fort Worth, Texas.

The responsibilities and obligations of the Bureau are varied and numerous. However, outstanding among them are to furnish administrative and technical know-how to its field offices, state and local agencies and, most of all, to participate in construction and improvement of federally-aided highway systems. Development of the concept of the national highway system is a direct result of the steady growth of a federal-state-local relationship which has evolved over a period of many years by mutual cooperation and participation in its development.

A continuous and basic objective of the Bureau of Public Roads is to assist states in planning and developing up-to-date and adequate highway systems to meet the country's rapidly growing transport needs for people and goods. Under its continuous guidance and leadership, with the cooperation of state highway organizations, the federal highway aid program has grown from a very modest initial appropriation of $500,000 in 1917 to approximately $3.7 billion in 1965 (5, p. 5).

To summarize the organizational development of the Bureau, it seems that administrative changes and reorganization
plans have permitted the Bureau to function efficiently, economically and effectively as additional responsibilities and powers have been granted in recognition and appreciation of its ability to organize and carry out successfully nationwide highway construction, improvement, research and planning programs for more than half a century.

Federal Aid Highway Act of 1921

There were some fiscal limitations, as discussed above, in the 1916 act. Included were the total federal grant for post road construction and the limit of federal funds to $10,000 per mile. These fiscal limitations were lessened to some extent in the appropriation Act of 1919, which increased federal funds to states to permit a maximum of $20,000 per mile.

However, Congress soon realized that these measures were not adequate for the development of a highway system national in scope. In order to develop such a system, Congress passed the Federal Act of 1921. The Act included two important provisions which were lacking in the previous highway acts.

First, Section 6 of the Act required

That in approving projects to receive Federal aid under the provisions of the Act the Secretary of Agriculture shall give preference to such projects as will expedite the completion of an adequate and connected system of highways, interstate in character.

Before any projects are approved in any State, such State, through its highway department, shall select or designate a system of highways . . . .
Upon this system all Federal-aid apportionments shall be expended (8, p. 15).

Instead of providing federal aid just for the post roads, Congress here adopted a broader policy of developing a truly nationwide system of highways. The measures—requiring states to designate a system of highways, federal aid preference for those projects which would expedite construction of such systems and congressional requirement to expend federal funds only on systems selected—which were taken by Congress in the 1921 act, insured the development of a nationwide highway system. The requirement of state planning for a total system was a particularly significant provision and established a general continuing policy for the allocation of federal funds.

The second major provision was included in Section 12, which has exerted a far-reaching influence on some of the state highway organizations. It provides

That the construction and reconstruction of the highways or parts of highways under the provisions of this Act, and all contracts, plans, specifications, and estimates relating thereto, shall be undertaken by the State highway departments subject to the approval of the Secretary of Agriculture (8, p. 17).

In previous highway acts, Congress called for states' and state highway departments' cooperation and participation in construction of federally-aided highways. In the 1921 act, however, Congress required in definite terms that all plans, construction and improvements regarding highways
should be made by a state highway department. Some states so far had participated in federal construction of highways with the aid of counties which were empowered by their states' constitutions to construct and improve roads and highways within their jurisdictions. This traditional pattern had to be changed if these states desired to receive federal aid for highways, for the 1921 act required them to administer federal aid through their highway departments only.*

Most of the federal highway acts between 1922 and 1943, with the exception of the Hayden-Cartwright Acts of 1934 and 1936, were passed to relieve the states from the ravages of the 1930's depression and the World War II emergency. For instance, the National Industrial Recovery Act appropriated millions of dollars to aid states "to relieve destitution" and "to create employment in 1932 and 1933" (8, p. 61). Basically the National Industrial Recovery Act was not a highway law and was primarily enacted to provide encouragement and relief to industry and business during the depression period. However, it contained some important provisions leading to the establishment of federal-local relationships regarding highways. The Act provided that up to 25 per cent of the funds allotted to a state were to be expended under local control for public roads (5, pp. 88-89).

*A more detailed discussion is given in the next chapter, "Major Texas Highway Laws."
The Hayden-Cartwright Act was the single most important highway legislation that was passed during the depression period. It included the highway planning and survey provisions. Prior to the passage of this Act, little information had been gathered regarding local roads and city streets. For the first time, Congress made a separate financial provision in its laws for planning, research and evaluation of local roads and streets in each state. The Act stated that

With the approval of the Secretary of Agriculture, not to exceed 1 1/2 per centum of the amount appropriated for any year to any State under section I and IV of the Act may be used for surveys, plans, and engineering investigations of projects for future construction in each State . . . (8, p. 77).

This provision for up to 1 1/2 per cent of the total appropriation of federal funds for planning laid the basis for future highway comprehensive planning and research projects, such as the Dallas-Fort Worth Regional Transportation Study.

A change in emphasis occurred in Congressional highway policy during the war years. This was a shift of concern from regular highways to military strategic highways for defense purposes. The Defense Highway Act of 1941 was a typical example of such a policy which emphasized the need for military and defense highways.

Federal Aid Highway Act of 1944

During the war years, because of the shortage of personnel for planning and surveying, these activities regarding
highways were reduced greatly; nevertheless, they were not completely brought to a standstill. Sufficient information was collected, before the year 1944, to form a basis for the passage of the important Federal Highway Act of 1944. Urban congestion had begun to emerge as a problem immediately before and during World War II. Transportation problems of urban and metropolitan areas in the country became very acute when the transit needs of persons and goods were not met as fast as they grew. The 1944 Act was passed to meet the rapidly growing transportation needs of people and goods. Passage of the Act was the first step by Congress toward a return to regular pre-war highway activity. It also marked the first major allocation of federal funds for urban programs and a secondary highway system of farm-to-market roads (2, p. 9). The Act also authorized the building of 41,000 miles of highway system, officially called the National System of Interstate and Defense Highways and commonly known as the interstate system. The interstate system is considered an integral part of the primary system as Congress had not, in 1944, appropriated federal funds separately for it (2, p. 9). Perhaps it was because of local fear that a separate fiscal allocation would lead to federal domination of the interstate program that Congress decided to make it a part of the existing primary highway system.
Federal Aid Highway Act of 1956

The 1956 act is the largest highway program sponsored by the Federal Government in the history of federal aid for highways. In 1944, Congress initiated the interstate system. However, it was by the passage of the Federal Aid Act of 1956 that full-scale construction of the system was started. The total cost--federal and states' joint contribution--for the interstate system, which will take thirteen years to complete, is estimated at approximately $41,000,000,000, of which the federal share is $37,000,000,000. Due to the national importance of the program, the Federal Government bears 90 per cent of the cost (1, p. 11). On completion, in 1972, the interstate system will be composed of 41,000 miles of the most modern and safe highways in the country. The interstate system which Congress designated by the 1956 act as "the National System of Interstate and Defense Highways" is comprised of roads and highways which directly connect the principal metropolitan and urban areas, cities and industrial centers. In addition, it serves the national defense. As early as 1939, the Bureau of Public Roads had pointed out the need for such a system (1, p. 6). Lack of funds during World War II and the years immediately following the end of the war kept federal and state governments from taking any concrete steps toward its establishment. The modest financial measures taken by Congress in 1944, as a recognition of
need of such a system, however, were fully implemented in 1956.

To insure continuous revenues for the interstate system, Congress by the provisions of the Act of 1956 established the federal highway trust fund to receive highway-user taxes, such as the federal motor fuel tax, and from which funds for federal highway aid were to be disbursed (1, p. 9). The federal tax on motor fuel was increased from two cents a gallon to three cents a gallon (1, p. 47) at the same time.

Congress described its main objectives in Section 116 of the Federal Aid Highway Act of 1956 in these words:

It is hereby declared to be in the national interest to accelerate the construction of the Federal-aid highway systems, including the Interstate System, since many of such highways, or portions thereof, are in fact inadequate to meet the needs of local and interstate commerce, the national and civil defense.

It is further declared that one of the most important objectives of this Act is the prompt completion of the Interstate System (8, p. 208).

Congress, in the Act of 1956, has evolved a transit policy based on two different albeit complementary basic concepts—a highway policy dictated by the experience of war for the purpose of defense and a post-war policy to meet growing needs of commerce and metropolitan development of the country.

The Federal Aid Highway Act of 1962

The major financial undertakings in the post-World War II era to aid the states in construction of various systems of
highways continued as a basic Congressional highway policy in the Federal Aid Highway Act of 1962. Congress, in order to meet rapidly growing transit needs of people and goods, gave additional responsibility and authority to the Bureau of Public Roads for better coordination and efficiency in administering federal aid for highways in cooperation with various state agencies. The House Committee on Public Works, commenting upon provisions of the 1962 Act, noted that

The cooperative working arrangements undertaken by the Bureau of Public Roads of the Department of Commerce with the State highway departments in the area of transportation planning will permit the Federal guidance and leadership necessary to achieve the objective of sound and uniform transportation planning in these urban areas (5, p. 13).

Also, long-range urban highway research and planning were more emphasized by Congress in the 1962 Act. Section 9(a) of the Act says:

After July 1, 1965, the Secretary shall not approve . . . any program for projects in any urban areas of more than fifty thousand population unless he finds that such projects are based on a continuing comprehensive transportation planning process carried on cooperatively by States and local communities in conformance with the objectives stated in this section (9).

Construction of extensive highway systems under the provisions of the 1956 and 1962 highway acts involve, in addition to federal and state governments, various units of local government--county, city, etc. In order to insure efficient and smooth implementation of provisions of federal highway acts, Congress not only determined to require state cooperation but also cooperation of local agencies. The Director
of Planning, Bureau of Public Roads, in his supplementary memorandum setting out interpretation and definition of the 1962 act for all urban transportation planning projects, explains the term "cooperatively" and the manner of its implementation in these words:

Cooperation is construed to mean that each jurisdiction having authority and responsibility for actions of regionwide significance should have appropriate voice in the transportation planning process, either through direct participation or through adequate representation. State highway departments should solicit the cooperation of all political subdivisions having such authority and responsibility. This solicitation can be made directly to the governing bodies or each individual political subdivision or through an appropriate local agency (4, p. 10).

Summary

Observing federal highway aid programs as a whole, one discovers that there seem to emerge some major and distinct patterns of Congressional policy regarding highway aid to states in the last fifty years. In its earlier phase, Congressional policy tended to be restricted in regard to highway mileage and fiscal allocation. But, in spite of these limitations, the highway acts passed during the first decade since 1916 had laid down a basic foundation for subsequent highway acts. Requirements of the establishment of state highway departments and state cooperation in construction of roads and highways were the main characteristics of these acts.

Acts generally passed during the depression period, with the exception of the Hayden-Cartwright Act--which for the
first time included highway planning and survey provisions—were mainly concerned with relief measures to the states to provide employment of the maximum possible number of people.

Congressional concern during the war years was to provide a system of highways for strategic and defense purposes. The post-World War II legislative tendency concerning federal funds for highways is guided largely by long-range and continuing transport research and planning to meet rapidly growing metropolitan and urban transit needs.

The present extensive provisions of the federal highway aid laws which have accumulated in the last fifty years are the result of gradual and steady process development through experimentation. These laws have regularly been modified through amendments and additions enacted in subsequent highway legislation which had its modest beginning in the year 1916.

Along with the expansion and growth of the federal highway aid programs, the growth and expansion in the jurisdictional, functional and administrative authority of the Bureau of Public Roads, which is the main federal executive agency for these programs for more than half a century, was inevitable.

Regarding the administrative and functional principles laid down by the federal legislative highway policies in the last fifty years, it may be said that these principles have
effectuated intergovernmental cooperative partnerships on federal, state and local levels. In the intergovernmental relationship each government participates administratively and functionally, assuming its share of responsibility for development of local, state and national transport systems. Thus, Congressional highway policies have provided a basic framework within which governments and their agencies on all levels can successfully attempt to solve transit problems having local, state and national aspects.
CHAPTER BIBLIOGRAPHY


CHAPTER III

MAJOR TEXAS HIGHWAY LAWS

County Road Administration

When Texas joined the Union as a state, it was sparsely populated and still was a frontier state with a large undeveloped and unsettled hinterland. In 1876, the Texas Legislature delegated powers adequate for the time to the counties for construction and maintenance of public roads within their jurisdictions. In addition, the Texas Constitution gave county commissioners a wide, discretionary range of authority in conducting their affairs. Article V, Section 18, of the Constitution provides:

Each county shall in like manner be divided into four commissioners precincts in each of which there shall be elected by the qualified voters thereof one County Commissioner, who shall hold his office for four years and until his successor shall be elected and qualified. The County Commissioners so chosen, with the County Judge as Presiding Officer, shall compose the County Commissioners court, which shall exercise such powers and jurisdiction over all county business, as is conferred by this Constitution and the laws of this State, or as may be hereafter prescribed (18, Vol. I, Art. 5, Sec. 18).

Articles 6702 through 6789 of the civil statutes of the state provide the county commissioners court with procedures for establishing a system of county roads and instructions
as to how to construct and maintain them (9, p. 6). County officials, in order to provide funds for building and improving public roads, undertook several types of measures. In 1883, the Texas Legislature permitted counties to levy a tax of fifteen cents on each $100 of property valuation. This tax was increased to twenty-five cents by 1890 (6, p. 81). As these financial provisions proved inadequate, county authorities not only made it mandatory for every able-bodied man living within a county to provide a specific number of days every year as a free laborer to work on public roads, but they also brought pressure upon the Texas Legislature in 1903 to pass an act authorizing counties to issue bonds for highway construction and improvement (7, pp. 2-3). This period of complete local domination of road construction lasted until the passage of the Texas Highway Law of 1923.

The era of local control of public roads had some very serious disadvantages. In this set-up, counties were primarily concerned with maintaining old public roads handed down from the frontier period. Usually it was beyond the financial ability of a county to build new roads and provide maintenance and operational cost of existing public roads. County "highway gangs" were very poorly qualified technically for building and maintaining roadways. Most of all, there was little planning and coordination as it is thought of today. Consequently, development of public roads in counties, under
local management, was not only static, but also, with various standards for road construction, was disjointed and incoherent. County roads often abruptly ended at various points, particularly at county lines, or did not connect with roads in neighboring counties. When streams were used to mark boundary lines between counties, much-needed bridges were not constructed merely because no agreement could be reached on location, construction and methods of finance. In summation, county road management produced a set of routes which were fragmented, ill-planned and localized in nature. Needless to say, these roads fell far short of providing adequate transportation for the needs of the rapidly growing state of Texas.

A change in the administrative arrangements for road building, from the county to the state level, was long overdue. The first major opportunity for improvement was provided when the Texas Highway Law was passed in 1917. This step, however, was the product of a long process of development.

In the first decade of this century, socio-economic conditions in Texas were similar to those in the rest of the country. When economic and cultural conditions were reasonably stabilized, demands for better and extensive highways gained momentum. The invention and the increasing use of
automobiles were the major reasons for such demands. With the passage of time, the need for public roads became acute; and numerous road clubs and associations were formed, in the early part of this century, to promote the cause of better highways in the state. A convention was held by the various road clubs and civic organizations at Corpus Christi in 1913, and there it was decided to merge all groups interested in the good road movement into a single statewide organization known as "The Texas Good Roads Association." A resolution was passed at the convention demanding that a state highway organization be created to furnish counties with adequate expert information and technical assistance in road building.

(4, p. 11).

Several unsuccessful attempts had been made by the State Legislatures, prior to the year 1916, in response to the popular demands from the public to create a state highway department. Each measure considered by the Legislature for this purpose had failed for one or another reason, until the passage of the Federal Aid Road Act of 1916. Frank M. Stewart,* in his study of Texas highway administration, noted that "Bills having as their purpose the creation of a state highway authority were introduced in every /Texas/ legislature

*Frank M. Stewart, a political science professor at the University of California, working under a research grant from the University of Texas, made a study of Texas highway administrative and fiscal policies in 1933-34.
from 1903 to 1917, when the legislative maze was finally negotiated" (13, p. 22). Two main objectives were achieved by the establishment of a state highway organization. On one hand, it satisfied the public demand for such an organization; and, on the other hand, it made it possible for the state to qualify for the federal highway funds. Thus, the Thirty-fifth Legislature in 1917, for the purpose of securing federal aid appropriated for the state of Texas, passed an act complying with the stipulations of the Federal Road Aid Act of 1916 and created the State Highway Department (7, p. 4).

Highway Law of 1917

Under the Highway Law of 1917, administrative control of the Texas Highway Department was vested in the Texas Highway Commission and the State Highway Engineer, who was to be appointed by the Commission. The Act of 1917 stated without any ambiguity that "The administrative control of the State Highway Department should be vested in the State Highway Commission . . . and the State Highway Engineer" (14, p. 3). The Act further delegated authority to the Commission to grant state aid to counties on receiving comprehensive, appropriate and specific plans for construction of highways from the funds made available by the Legislature for such purposes. However, state aid to counties was limited to only
25 per cent of the costs of the highway projects, and in some cases to 50 per cent where the projects were parts of the main highway systems. Further, state funds to the counties were restricted to construction of ten miles of roads per county per year, and counties were made solely financially responsible to maintain public roads built with state funds (12, p. 15).

Among other significant provisions of the Act was the establishment of a separate fund for highways. Various fiscal resources—gasoline tax, automobile registration fees and federal aid—were channeled into one fund designated as "the State Highway Fund" (14, p. 95). As said earlier, the main provisions of the Act are concerned with establishment of the State Highway Department.

Texas Highway Department

The Texas Highway Department, generally known as the State Highway Department, came into existence in the year 1917. Original provisions of the Act called for establishment of a department comprised of two components: Texas Highway Commission and Texas Highway Department. The Commission was to be composed of three members, appointed by the Governor with Senatorial consent and approval for a two-year term; and one of the members was to be named as a chairman of the Commission (7, pp. 4-6). However, the
Thirty-eighth Legislature amended the provisions of the 1917 act and extended the members' terms from two-year to overlapping six-year terms (8, p. 1). The Commission was made the policy-making body of the Highway Department by the Legislature. Powers were delegated to the Department to formulate plans and policies for location, construction and maintenance of a comprehensive system of highways and public roads with the cooperation of the counties in the state (8, p. 1). The Commission was also given fiscal responsibilities regarding highway expenditures. The Thirty-fifth Legislature specifically stated that

... expenses shall be paid only on warrants ... drawn by the chairman of the Commission and approved by one other member thereof, such vouchers to be accompanied by itemized sworn statements of the expenditures (14, p. 92).

Regarding procedure of the Commission the Act provided that

The Commission shall hold regular meetings once a month. They shall attend the same and such special or called meetings as they may provide by rule or the chairman may call. ... They shall biennially submit a report of their work to the Governor and the legislature, with their recommendations and those of the State Highway Engineer. A quarterly statement containing an itemized list of all money received and from what source and of all money paid out and for what purpose shall be prepared and filed in the records of the Department and a copy sent to the Governor. These records shall be open to public inspection (14, p. 3).

The Commission was also delegated full authority to make rules and regulations to carry out policies and decisions of
the Department as deemed necessary. The Act says:

The Commission shall establish and make proclama-
tions of all rules and regulations for the conduct of
the work of the Department as may be deemed necessary,
not inconsistent with the provisions of the law. They
shall maintain a record of all proceedings and official
orders and keep on file copies of all road plans,
specifications and estimates prepared by the Department
or under its direction (14, p. 4).

It was also made the responsibility of the Commission to se-
lect a competent civil engineer to head the highway department
who was to be known as the "State Highway Engineer." His
duties and responsibilities were described and defined as:

... to prepare, under the direction of and with the
approval of the Commission, the plans for locations
and construction of state highways, and to carry out
the policies and direct the work of the Department in
general (7, p. 6).

The law further described his duties:

The Highway Engineer shall cause to be made and
keep a form convenient for examination in the office of
the Department, a complete road map of the State as
represented in the construction of the various counties,
and such map shall be regularly revised as construction
proceeds in the different counties. He shall also pre-
pare under the direction and the approval of the Com-
mmission, a comprehensive plan providing a system of
State highways (14, p. 5).

In short, the Texas Highway Commission, by the Act of
1917, was made the administrative and policy-making body
while the Texas Highway Department was made the executive
body.

The State Highway Department, with its headquarters lo-
cated at Austin, headed by the Commission and with a nominal
technical personnel under the State Highway Engineer, started functioning in 1917. Numerous legislative measures were taken for the expansion and progress of the Department. In 1918, the offices of Bridge Engineer and Aid Projects were created. The former was to prepare standards and special designs for structures of all types, and the latter was to handle all financial transactions between the Highway Department and counties (7, p. 8). The Material and Tests Division was established in 1919 to determine the resources of the state for building highways. In 1923, such important divisions as Maintenance and Construction were added. Among other significant expansions of the Department were the creation of the Office of Assistant State Highway Engineer, Highway Research and Planning Divisions, the Office of the Deputy State Highway Engineer to handle additional duties and responsibilities and the Office of Chief Engineer of Operations (7, pp. 12-21).

There are seventeen divisions which include twenty-five districts throughout the state for purposes of maintenance and construction of highways and for administrative purposes.

Major monetary resources are made available through taxes on motor fuel and vehicular registration fees for the operation of the Department. However, the single largest source of state highway revenue is federal aid funds. For the year 1964, federal funds comprised approximately 41 per
cent of the total Texas highway receipts (3, p. 484). It has been found unnecessary so far to finance highway construction and maintenance through bonds, as is a normal practice in many states in the country. "No state bonds for highways have ever been voted in Texas . . ." (7, p. 26).

The Texas Highway Department has come a long way from its modest beginning in 1917. Progress and expansion of the Department indicate economic progress of the state and the United States, as increasing funds on both levels are made available for highways every year. The progress is also made possible through federal and state legislation. This legislation, over the years, has enlarged the authority of the Department by delegating to it powers for the administrative control of highways in the state.

**State Highway Act of 1923**

The Federal Aid Road Act of 1916 was amended by the passage of the Federal Highway Act of 1921. Many important amendments were made, including some which called for a more centralized highway administration on a state level. The Act of 1921 specifically called for an exclusive administrative control of all highway systems aided by federal funds before 1924.* The traditional and cooperative division of

*The time limit was later extended to 1929 for compliance (13, p. 40).
responsibility between the state and its counties in managing various highway systems thus came in conflict with the federal highway policy of centralization. Non-compliance with this federal demand would jeopardize the continuance of federal aid for highways in the state of Texas. Texas, being one of the nation's largest recipients of federal highway aid and relying heavily on its support, could not afford to lose it. In order to avoid the danger of losing federal aid, the state found it necessary to make some appropriate changes in the state Constitution and highway laws so as to vest exclusive administrative control in the State Highway Department (13, p. 40).

In the face of urgency, a group of civic-minded and interested citizens met in Austin in 1922 and formed the "Texas Highway Association." A constitution and by-laws were adopted, and standing committees were formed (13, p. 40). Prominent, influential and active citizens were made the members of the financial and legislative committees of the Association. These committees held numerous meetings at various important cities, including Austin, Dallas, Fort Worth, Galveston and Waco. The main purpose of the Association was to campaign for public support in favor of amending the state Constitution to remove standing obstacles which prevented the State Highway Department from assuming a full administrative control of all highway systems in the state (13, p. 43).
The State Highway Commission also added its support to the above movement in the recommendations, included in its biennial report, to the Texas Legislature:

The last Federal Aid Act, however, requires that after November 9, 1926, Federal aid funds will only be apportioned to the States which have adjusted their Constitutions or laws so that any funds used to match Federal aid must be under the direct control of the State Highway Department. It is, therefore, recommended that the Thirty-ninth Legislature take whatever action is necessary to allow the State Highway Department to comply with this Federal Aid requirement (11, p. 10).

The Association was quite successful in appealing to the general public for support of its program. "Endorsements of its program had come from state and local civic organizations, chambers of commerce, banks, county commissioners' courts, and similar bodies" (13, p. 44). While campaigns for constitutional amendment for complete control by the State Highway Department of construction, operation and maintenance of highway systems for public roads were proceeding successfully, the Thirty-eighth Legislature passed an important piece of highway legislation in 1923. Under the State Highway Act of 1923, the office terms of the members of the commission were extended from two to six years and their salaries were raised substantially. For additional highway funds, automobile fees were increased and a tax on wholesale gasoline dealers of one cent was levied by the acts of the same session. A significant section included in the Act
gave the highway commission authority on or after January, 1924, "to take over and maintain all state highways" (13, p. 44). A second important step taken by the Thirty-eighth Legislature was the proposal of a constitutional amendment. Even though it was never ratified, the proposal is significant as a reflection of legislative intent. The proposed amendment to the Constitution read:* 

The Legislature is authorized and directed to provide for the creation, establishment, construction, maintenance, and repair of a system of improved highways throughout the State to be under the control of the State . . . (16, p. 450).

It is apparent that this amendment proposal was made to meet federal requirements of the 1921 Act, which called for full control of the Texas Highway Department over creation, construction and maintenance of state highways.

Counties, which had enjoyed for a long time a great degree of autonomy in handling public road affairs within their jurisdictions, were not to submit easily to the state control of highways. The Robbins v. Limestone County case was the outcome of such an opposition to a policy of state highway centralization. A charge was brought against W. A. Robbins, county tax collector, by Limestone County and six of its residents. An injunction was sought to refrain

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*The constitutional amendment was not submitted as planned for popular vote on July 28, 1923, as certain technical requirements for a constitutional amendment were not met and the election if held would have been null and void (13, p. 46).
Robbins from remitting motor vehicle registration fees to the State Highway Fund, on the premise that the county owned the roads because they had been built with its money and that the taxes collected should remain in the county. The case was brought before the Texas Supreme Court in 1924. The Court's decision was in the state's favor and was set forth in the following verdict:

Public roads are state property over which the state has full control . . . the right to establish them resides primarily in the Legislature, and in the absence of constitutional restrictions, the legislature may exercise that right, direct and delegate it . . . (10, p. 345).

Two important and basic issues were resolved by the Supreme Court decision. First, it became unnecessary to amend the Constitution to establish state control over highways and second, the way was cleared for enactment of a highway bill which would fully comply with the requirements of the Federal Highway Act of 1921.

Highway Act of 1925

An act, which had been vigorously campaigned for during 1924 by numerous civic organizations, including the Texas Highway Association, which was recommended and supported by the Texas Highway Commission and which the Legislature appeared eager to pass, was finally enacted as the Highway Act of 1925. The Act declared that

All further improvement of said State Highway System with Federal aid shall be made under the
exclusive and direct control of the State Highway Department and with appropriations made by the Legislature out of the State Highway Fund. The further improvement of said system without Federal aid may be made by the State Highway Department either with or without county aid. Surveys, plans, specifications and estimates for all further improvement of said system with Federal aid or with Federal and State aid shall be made and prepared by the State Highway Department. No further improvement of said system shall be made under the direct control of the commissioners' court of any county unless and until the plans and specifications for said improvement have been approved by the State Highway Engineer (14, pp. 18-19).

The 1925 Act met the requirements laid down in federal acts, resulting in almost complete centralization of highway administration on the state level. However, it would be erroneous to assume that the said Act deprived counties entirely of the power of building public roads. Counties still could participate in highway building projects which were not sponsored by federal aid, although counties had to submit plans, specifications and cost estimates for public road projects within their jurisdictions to the State Highway Department for its approval.

Expansion of the State Highway Department Under State and Federal Highway Acts

Cumulative effects of the state highway laws of 1917, 1921, 1923 and 1925 resulted in organizational and operational expansion of the Department. The Maintenance Division was created and expanded as the number of districts was raised to sixteen in 1923 and additional personnel were
appointed to handle increased highway activities (7, p. 11). Because the Department lacked sufficient funds, equipment and personnel immediately after the passage of the 1925 Act, counties and the state cooperated in maintaining public roads; but this arrangement was terminated in 1927 when the Department had secured sufficient equipment, personnel and finance to construct and maintain the entire state highway system (7, p. 11). Also in 1923, the Construction Division assumed the added responsibilities of assisting district engineers in supervising county engineers in locating and constructing county roads. Later, counties were released from the responsibility for building highways, and thus the Construction Division was given additional duties of general supervision of all public road projects in the state.

Significant expansion and improvement continued to be made in the Department; perhaps most important was the creation of the Planning and Survey Division which was the consequence of another federal law, the Hayden-Cartwright Act of 1934. In order to collect masses of data concerning city streets and local roads for highway planning to determine in advance future transit needs of the area, the Texas Highway Department, in 1936, organized a statewide highway Planning and Survey Division comprised of four subdivisions: Rural Road Survey, Traffic Survey, Financial Survey and Road Life Survey (15, p. 3). Establishment of the Planning
and Survey Division made possible the provision of much-needed valuable data on local roads and streets which were not available in the absence of state-county cooperation, and its services proved indispensable in overall state and federal public road planning. In the initial stage, the scope of planning and research was limited basically to study and identification of transit movements of the area. A few studies were made as early as 1935-36, on federal and state levels, either jointly or separately (2, p. 20). In the post-World War II period, needs for expanded transportation facilities both for people and goods in urban areas of the country have developed so rapidly that "since World War II, more than 800 studies have been made of transportation in urban areas by State highway departments and the individual cities in cooperation with the Bureau of Public Roads" (2, p. 20). The Dallas-Fort Worth Regional Transportation Study, which is one of the major ones of such studies, is the result of federal-state-local cooperation to determine and encompass all aspects of transportation of the north central Texas region.

Establishment and expansion of the planning and surveying activities of the state and its agencies were made possible through the fiscal provisions of the Hayden-Cartwright Act of 1934. Thus, in response to the federal provisions for highway research and planning, the state,
through statutes and establishment of administrative agencies to accommodate such federal requirements, started another lasting and cooperative intergovernmental relationship with the federal government. Later, cities and counties were included under the provisions of the Federal Aid Highway Act of 1962. Consequently, planning and research for highways became a permanent feature of the intergovernmental relationships on all levels for the development of local, state and national highway systems.

Optional County Road Law of 1947

The county road administration in Texas inherited an organizational structure with adequate powers to manage the county public road systems from earlier constitutional and legislative provisions. However, it was weakened and left without much authority to conduct its affairs efficiently and effectively when the move to concentrate highway administrative control at the state level began with the passage of the 1917 act which created the State Highway Department. The process of centralization at the state level was greatly checked, however, by the absence of any significant and major federal and state highway legislation during the depression of the 1930's and World War II years. Exceptions were the Hayden-Cartwright Act of 1934 for planning and evaluation of local roads and streets and the Federal
Aid Highway Act of 1944 for defense and construction of the urban highway system.

Basically, most Texas counties are rural in their economic and administrative dispositions. The county administrative arrangement for public roads is based on the nineteenth-century agrarian and rural economic concept where the county road system of farm-to-market roads was primarily built to market farm produce. Consequently, maintenance and development of county roads were made the responsibility of county governments by the earlier Texas constitutions and legislatures.

In spite of some fundamental changes brought in by rapid urbanization and industrialization, the nineteenth-century type of administrative organization is still prevalent in most Texas counties. The county commissioner's court is a policy-making body which transacts all county business. However, each county commissioner, who also acts as a chief road official of his precinct, is quite independent in conducting road affairs of his precinct (8, p. 25). Thus, road administration in most of the counties in the state, based on the precinct system, is not only a decentralized, but also an uncoordinated organization, as each county commissioner acts independently of the others.

In order to provide the possibility of some measure of coordination and centralization on the county level in road
administration, the Forty-ninth Legislature passed the Optional County Road Law of 1947. It is called optional because it is left to the voters of each individual county to adopt a countywide or unit system of public road administration under the direct supervision of a competent and well-qualified county engineer (1, pp. 371-372). A county deciding to adopt the unit system has to comply with a set of requirements laid down under the provisions of the Optional County Road Law of 1947. Such a county is required to establish a road department having the commissioners court as its decision-making body and a county engineer as an administrator of policies and decisions of the commissioners court. Administration and operation of all county road affairs, including handling of equipment, materials and funds, are to be on a county and not on a precinct basis (9, p. 23). The engineer, in this system, not only acts in an advisory capacity to the commissioners court, but also prepares estimates, specifications and plans for all county equipment, supplies and labor necessary for construction and maintenance of roads within county jurisdiction (9, p. 23).

There are some obvious advantages in the unit system over the precinct system in administering public roads. Efficiency and economy can be achieved in construction and maintenance of county roads through centralization and coordination of supervision, operation and usage of equipment.
personnel and funds on the county instead of the precinct level with each precinct operating independently of the others in all matters concerning public roads (9, p. 1). However, a survey conducted of types of county road administration—unit and precinct—revealed that very few counties have taken advantage of the Optional County Road Law of 1947.* Probably, there are two most important reasons responsible for the failure of the unit system in Texas counties. One is the requirement of the Act which called for a "licensed professional engineer, experienced in road construction and maintenance, who shall meet the qualifications required by the State Highway Department for its county engineers" (9, p. 50). A great number of counties in Texas are reluctant for financial reasons to hire licensed professional, experienced and career engineers, who usually demand higher salaries than the counties can or will afford. McMillan, in his research and survey on the salaries of the county engineers found that "the $7,200** figure is a greater

* T. E. McMillan, Jr., Research Associate of the Institute of Public Affairs of The University of Texas, Austin, conducted research "to determine the type of road administration existing in each Texas county and evaluate the effectiveness of the various types of administration" (9, p. v). He started his research in 1953-54 and at that time there were only ten counties, out of 254 in Texas, operating under the unit system. This seems to be the latest information available on the number of counties under the unit system.

**The $7,200 figure is the annual salary limit for a county engineer set by the Optional County Road Law of 1947, but this does not imply that the county engineer must be paid this amount as some opponents of the unit system erroneously think (9, p. 31).
amount than small counties have found it necessary to pay an engineer . . ." (9, p. 32). Second is the fear, on the part of county commissioners, of losing county road control to the county engineer, who enjoys much authority under the unit system (1, p. 371). The fear is "that his position would make him the sole determiner of county road and work policies" (9, p. 32).

Regardless of the validity of arguments in favor of or against the unit system, it is fact that very few counties in Texas operate under this system. However, the Act is considered as one of the most important county laws ever passed by the Texas Legislatures. "As far as the improvement of county government is concerned, the optional county road law is the most significant county legislation passed since the adoption of the present state constitution" (1, p. 372).

Constitutional Amendment of 1949

By the amendment of the state Constitution in 1949, another landmark was achieved in the history of county road administration in Texas. The ad valorem tax, which is the property tax of not more than eighty cents for all general purposes levied on a $100 property value basis, is the major revenue source for county road administration (1, p. 367). However, this source has proved inadequate for the purpose. Consequently, a constitutional amendment of 1949 provided
counties with the authority to levy a special additional tax not to exceed thirty cents on $100 valuation for construction and maintenance of farm-to-market roads and for flood control. Section I-a of Article VIII of the Constitution reads:

From and after January 1951, the several counties of the State are authorized to levy ad valorem taxes upon all properties within their respective boundaries ... not to exceed thirty cents (30) on each One Hundred Dollars ($100) valuation ... authorized by the Constitution of this State, provided the revenue derived therefrom shall be used for construction and maintenance of Farm to Market Roads or Flood Control ... (6, p. 77).

Again, information is lacking at the present time regarding counties which have levied taxes for their farm-to-market road program. The Federal Aid Highway Act of 1950, under Section 2, provided that county personnel could be used by the states as supervisors for farm-to-market road construction and maintenance, but for such use it was made mandatory that counties should be organized on the unit system (17, p. 166).

Federal and state governments, through some of the provisions of the National Industrial Recovery Act and the 1950 Federal Aid Highway Act and the 1949 Texas constitutional amendment, have provided opportunities for local administrative and fiscal control in public roads. At the same time, these provisions have also provided for close operative relationships in public road affairs, on federal, state and local levels.
State Highway Act of 1957

The Fifty-fifth Legislature passed the State Highway Act of 1957, granting additional powers to the State Highway Department to expedite and overcome any jurisdictional and procedural obstacles to completion of all the highway systems jointly sponsored by the federal and state governments. Section I of the Act provided:

To effectuate the purpose of this Act, the State Highway Commission is empowered to lay out, construct, maintain, and operate a modern State Highway System, with emphasis on the construction of controlled access facilities to modern standards of speed and safety; and plan for future highways . . . (14, pp. 7-8).

The Act delegated further powers by defining jurisdictional powers of the State Highway Commission:

The State Highway Commission is further empowered to lay out, construct, maintain, and operate any designated State Highway, now or hereafter constructed, with such access of control thereto as is necessary to facilitate the flow of traffic, and promote the Public Safety and Welfare, in any area of the State, whether in or outside the limits of any incorporated city, town, or village, including Home Rule Cities, and to exercise all of the powers and procedures to it granted by existing laws and this Act for the accomplishment of such purposes and the exercise of such powers and duties . . . (14, pp. 7-8).

However, the State Highway Department was required, under the provisions of the Act, to observe certain procedures, in exercising the delegated powers, to insure the representation and rights of the various political subdivisions of the state. The Act continued and stated that

. . . in the case of any project involving the by-passing of or going through any county, city, town,
or village, including Home Rule Cities, the State Highway Commission shall afford the opportunity for not less than one (1) public hearing in the locality before an authorised representative of the State Highway Commission, at which persons interested in the development of the project shall have the opportunity for attendance, discussion and inspection of the design and schematic layout presented and filed with the governing body of such county, city, town, or village, including Home Rule Cities, at least seven (7) days before the public hearing, by the State Highway Department. Such hearing shall be held not less than three (3) days nor not more than ten (10) days after the publication in the locality of notice of such hearing . . . (14, pp. 7-8).

The procedural clause of the Act is important because it established the basic skeleton for relationships between the State Highway Department and numerous political subdivisions to carry out urban highway planning projects, such as the Dallas-Fort Worth Regional Transportation Study, in cooperation with the Bureau of Public Roads.

Summary

There are several important trends that can be observed in the highway policies of the legislation in Texas. Basically, the state highway statutory provisions of the last fifty years are the responses to the requirements and demands of the federal highway policies, which are mainly centered around the establishment and concentration of administrative control in the state highway departments for developing the three nationwide highway systems with the cooperation of the states. To facilitate the federal requirements, state constitutional and statutory readjustments
were made which resulted in the loss of considerable road powers by counties which traditionally had enjoyed a free hand in managing public road affairs. In the post-World War II period, the process of centralization of administrative control, which began with the establishment of the State Highway Department in 1917, was checked by the passage of highway acts by the Texas Legislature which permitted the counties and local units to participate in the construction of local public roads with the cooperation of the State Highway Department. Urbanization in some of the counties, which necessitated local cooperation for important federal and state highway projects, resulted in the passage of state highway acts which permitted local control of public roads to some extent.

Comprehensive highway planning has its origin in the fiscal provisions of the Hayden-Cartwright Act which made state highway surveys and planning possible. Consequently, federal-state comprehensive highway planning projects for determining in advance transit needs of the people and goods have become a permanent feature of highway construction, improvement and maintenance throughout the country.
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CHAPTER IV

DALLAS-FORT WORTH REGIONAL TRANSPORTATION STUDY

Background

In recent decades governments on all levels--federal, state and local--have been plagued with vexing and complicated problems of rapid urbanization in many parts of the country, and this is particularly true in Texas. Frederick Cleveland, in a 1966 article on urbanization, commented, "as a nation we are in the midst of galloping urbanization, pushing to the point where almost three out of four Americans are urban dwellers" (2, p. 289). Along with the progress in many aspects of American society, this rapid urbanization has further compounded the existing complex problems of our time in many areas, including housing, health, education and, most of all, transportation. The problems of transportation grew in volume in metropolitan areas, such as Texas' Dallas-Fort Worth region, as existing transit facilities failed to meet the needs of increasing traffics of goods and people. "The daily movement of people and goods is rapidly becoming one of the most complex problems facing urban areas today" (18, p. 8). A rapid deterioration in transport facilities and failure to enlarge
and provide new highways, causing confusion, delay and choked highways and roads resulting in a sharp rise in death and accident rates, threatens the health, safety and economy of the urban areas of the country. It is no longer feasible, without a long-range plan based on a comprehensive and continuous study of transportation needs, to solve the menacing problems of transportation for metropolitan areas. Governments on all levels have come to feel the necessity for such comprehensive transit plans. Consequently, there were in 1966, jointly sponsored by federal, state and local governments, 223 planning and research and planning projects for highways in the country including 19 in the state of Texas (13, p. 29). The Dallas-Fort Worth study is one of these.

Purpose

To state that there was no comprehensive highway plan for the north central Texas region does not necessarily rule out the existence of some fragmented and isolated transit studies made by local authorities. Indeed, several of these did exist. However, more often than not, when such studies were made, they were planned and designed to meet limited and localized transportation needs. Usually little or no consideration was given to future and long-range plans. Consequently, by the time such plans and studies were completed by the local authorities they became obsolete, as the
transit needs of the people and goods of the area increased at a much higher rate than the isolated local units could plan and execute facilities to meet these needs. The National Committee on Urban Transportation, in its findings on problems of urban transportation, says:

Experience has demonstrated that piecemeal efforts are not the answer. A new approach is necessary if all the basic elements of transportation are to be brought into focus and handled successfully (24, p. 1).

Similar views are expressed by Frederick L. Zimmerman and Mitchell Wendell on local and fragmented highway planning:

There is growing awareness of the need for planning based on broad areas, to overcome so many of the weaknesses of planning built upon a fragmented system of local jurisdiction (30, pp. 238-239).

Therefore, the primary purpose of the Dallas-Fort Worth Regional Transportation Study is to coordinate the fragmented, localized and isolated transit efforts by local units with their consent and support in such a way as to produce a transportation plan encompassing all the present and future transit needs of the participating units in the study. The secondary purpose of the study is to provide continuing bases for the establishment of some methods to collect transportation data for the purpose of observing any deviation from existing and anticipated transportation trends (18, p. 82).

Establishment Procedure

The procedure through which the Dallas-Fort Worth Regional Transportation Study was established is based upon
both state and federal statutes and regulations. As early as 1951 the Texas Legislature delegated additional financial and contract-making authority to the State Highway Commission and power to further delegate it to employees of the State Highway Department. Section 2(a) of the Highway Act of 1951 declares that

By appropriate order, duly recorded in the official minutes, the State Highway Commission may delegate to some employee or employees of the State Highway Department the authority and duty to approve and sign vouchers for expenditures from the State Highway Fund . . . .; likewise the State Highway Commission may delegate to some employee or employees of the State Highway Department the authority and duty to approve and sign contracts, agreements and documents; provided that the purpose and effect of a said voucher or other document shall be to activate and/or carry out the orders, established policies, or work programs heretofore approved and authorized by the State Highway Commission (25, p. 95).

The State Highway Commission, to provide for initiating highway study projects under the provisions of the Act of 1951, as stated above, adopted a set of procedures for establishing a formal organization. This action was also in compliance with the Federal Aid Highway Act of 1962 which called for a "continuing comprehensive transportation planning process carried on cooperatively by States and local communities" (23, p. 41). Prior to the beginning of the Dallas-Fort Worth Regional Transportation Study, there were some studies conducted by the State Highway Department and the Bureau of Public Roads with the cooperation of local
units in various urban areas of the state. Thus, through experience and passage of time, the State Highway Commission has perfected a set of formal procedures for initiating such studies.

On July 31, 1963, a delegation composed of the officials of the cities of Dallas and Fort Worth and Dallas and Tarrant counties, on the suggestion of the highway engineers of the Dallas and Fort Worth districts, approached the State Highway Commission with a petition showing their desire to undertake a joint comprehensive transportation study (15, p. 5). On receiving the petition from the interested parties, the State Highway Commission issued a "minute."*

Various divisions of the Texas Highway Department participated in preparing a draft agreement which was submitted to the Bureau of Public Roads for its comment. The Bureau of Public Roads as a matter of routine procedure received a copy of the draft agreement in advance to examine the contents

*A "minute" is an order or authorization by the Texas Highway Commission explaining the basis of their action and empowering the State Highway Engineer to execute the provisions described in the minute. A "tender minute" is an order containing the conditions to which the petitioning parties must agree. It usually contains conditions regarding fiscal responsibilities of each interested party and cooperation in exchanging technical and administrative information. After city councils and county commissioners courts pass resolutions accepting the conditions outlined in the minute, the contracting parties accept the conditions in the minute; and then the minute becomes a "minute order" (18, p. 33). These are all preliminary agreements on which contracts for the transportation study are ultimately based.
of the said draft.* The draft agreement contained provisions concerning establishment of various committees, appointment and duties of the planning engineer, selection of personnel, financial obligations of each party and the techniques for developing the study plan. After the Bureau of Public Roads' approval of the proposed agreement, the document, with slight modification at the requests of some of the contracting parties, was signed among the cities of Dallas and Fort Worth, counties of Dallas and Tarrant and the state of Texas through its Highway Engineer, on February 14, 1964 (18, p. 85). This contract is known as a "Major Agreement."

A second agreement, known as a "Junior Agreement," was signed between the state of Texas, through its Highway Engineer, and seventy-three incorporated cities and nine counties within the study area.** Three cities in Dallas County, Highland Park, Richardson and University Park, refused to sign junior agreements (19).***

*The Bureau has adopted this procedure in order to see that the proposed draft meets all federal aid highway law requirements.

**See, for the names of the incorporated cities in the study area, Appendix, Chart No. IV.

***Fred P. Hildebrand, a retired Lieutenant Colonel, United States Air Force Intelligence, was employed by the study office as an Engineering Technician. He is primarily made responsible for securing junior agreements from local city and county officials in the study area. His usual procedure is to send an official letter to a city or county official, a few days in advance of his personal visit, describing briefly the reason and date for his visit. On the
The essential difference between a major and a minor agreement is that the former requires its contractual members to share expenditures of the study plan while the latter does not require any fiscal responsibility for the study plan from its members.

Scope: Area and Population

The area under the transportation study is much larger than that involved in other such studies in Texas or in the entire country. The Dallas-Fort Worth Regional Transportation Study is also one of the most complex highway planning projects, involving the federal and state governments as well as seventy-six incorporated cities and nine counties (9, p. 2). The study area is comprised of approximately 2,500 square miles—about two and one-half times as large as the country of Zanzibar or the country of Luxembourg. The population of the region, according to the census of 1960, is 1.5 million (9, p. 2). This is two and one-half times more than the combined populations of the above two countries. A rapid rise in population and, consequently, a considerable increase in metropolitan area are most likely to occur in the

appointed date, he contacts personally the official concerned and tries to explain to him the advantages of entering into contract with the Highway Department for such a study. A usual and accepted procedure for signing the junior agreement is to call a meeting of a city council or a commissioners court, as the case may be, passing a resolution by majority authorizing a city manager or mayor to sign a junior agreement (20).
north central Texas region in the near future due to several socio-economic factors. One of them is the planned canalization of the Trinity River, which calls for an estimated expenditure of $900,000,000. Congress has already appropriated, for the initial phase of the project, approximately $83,000,000 (22, p. 20). Some other important factors in the area are the growing major industries of aerospace, aircraft and electronics and business activities in banking, insurance, wholesaling and apparel. Dallas and Fort Worth are also a hub of the air and surface transportation and a center of facilities for education, national and international conventions, trade fairs and religious activities (14, p. 250).

Finance

The Dallas-Fort Worth Regional Transportation Study is financed by the joint efforts of the governments of the United States, Texas, cities of Dallas and Fort Worth and counties of Dallas and Tarrant. A formula for fiscal participation in such a study has been worked out by the Bureau of Public Roads. The formula is $15--15--70 (4, p. 1). $ stands for local (cities and counties) and 15 is a percentage of total study expenses. S and F stand for state and federal governments respectively, with 15 and 70 per cent as their respective shares of study expenses. The State Highway Commission originally estimated a total cost of $850,000 for
the study. According to the above fiscal formula, the federal share of the expenses was $595,000 and the state was $127,500. The remaining $127,500 of the original estimation was divided among local units on the basis of the 1960 per capita revenue of each. Expenditures distribution for the local units was:

<table>
<thead>
<tr>
<th></th>
<th>Amount</th>
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<tbody>
<tr>
<td>Dallas City*</td>
<td>$58,160.08</td>
</tr>
<tr>
<td>Dallas County*</td>
<td>23,261.42</td>
</tr>
<tr>
<td>Fort Worth City</td>
<td>30,483.23</td>
</tr>
<tr>
<td>Tarrant County</td>
<td>15,595.27</td>
</tr>
</tbody>
</table>

Total for local units $127,500.00 (6).

The payment of the federal share of the expenses for the study is made only after the work of the study project is actually accomplished and inspected and approved by the officials of the Bureau of Public Roads. Fifteen per cent, the shares of the cities of Dallas and Fort Worth and counties of Dallas and Tarrant, was paid by the local units as soon as the major agreement was signed (6). Thus, the state must pay initially 85 per cent of the expenses of the project and is repaid the federal share.

The Planning Engineer is required to report study expenses to each member of the Coordinating Committee.

*Dallas City and County contributed more to the study than did the city of Fort Worth and Tarrant County. Even though these are state highway districts, later this became an issue when the Dallas Highway District Engineer urged the appointment of the Planning Engineer for the study from his jurisdiction on the basis of its greater financial participation in the study than the Fort Worth District. This point is discussed in more detail on pages 71-73.
every month. The expenses as of February 1, 1966, since the start of the study project (January, 1964) were approximately $806,000 (7).

Formal Structure

The basic organizational structure of the Dallas-Fort Worth Regional Transportation Study consists of four committees and a Planning Engineer who is also known as the District Administrative Engineer. These four committees are the Coordinating Committee, the Regional Advisory Planning Group, the Technical Committee and the Public Relations Committee. With the exception of the Coordinating Committee, all committees act in advisory capacities to the Planning Engineer. All committee members, with the exception of the members of the Public Relations Committee, are governmental officials highly specialized and expert in their respective fields. A letter from the Office of the Planning Engineer to the Bureau of Public Roads, inviting officials to join the Technical Committee, indicates qualifications required of a member of the Committee. The letter reads: "The prospectus for the above* authorizes the formation of a Technical Committee of professional and technical personnel for the Study Area" (27).

*The letter here refers to the prospectus of the Dallas-Fort Worth Regional Transportation Study.
All committee members, including the Public Relations Committee, render their services without any monetary compensation (26). Meetings for these committees are not regularly scheduled; they are arranged by the Planning Engineer as the necessity arises.

Coordinating Committee

The membership of the Coordinating Committee is limited to the parties which are participating financially in the project. There are sixteen members on the Committee, seven from the city and county of Dallas and seven from the city of Fort Worth and county of Tarrant and one each from the Highway Department Office in Austin and the Bureau of Public Roads. The Committee in its first meeting, on April 7, 1964, at the Arlington City Council chamber, adopted a prospectus* after discussing each of its main features. The prospectus is mainly based on the contents of the major and junior agreements which are basically concerned with duties, powers and obligations of the various committees and the Planning Engineer. In addition, the prospectus also describes methods, techniques and procedures necessary to develop comprehensive and continuous highway plans (3, pp. 2-10).

*The Bureau requires a prospectus to see that the proposed transportation study is established and will be carried out according to the requirements of the federal highway aid legislation.
The Coordinating Committee, which receives its authority from the prospectus, is the policy- and decision-making body for the transportation study. It, on recommendations from the Planning Engineer, discusses, deliberates, considers and finally decides an appropriate course of action necessary to complete various facets of the transportation study. The Committee is also authorized to appoint the members of other committees on suggestions from the Planning Engineer (18, p. 36). Certain qualifications and procedures were defined and recommended for appointments of the members of the Technical and Public Relations Committees. In its first meeting the Committee decided that:

All information released by the Public Relations Committee shall be coordinated with the Planning Engineer. Membership on this committee shall be tendered to persons serving as chairman of the Central Highway Committee of Chambers of Commerce and/or other interested individuals.

List members of the Technical Committee by title. Ask city managers of large cities to appoint a member from their staff (3, p. 5).

There had been some twelve meetings of the Coordinating Committee by the end of July, 1966. Some important discussions were held in these meetings and some decisions made regarding the nature of the study and its financial status as additional funds were needed to carry out its business (7, p. 1). There are usually some guests, highway officials from the study area, present at these meetings as observers. For instance, there were six guests at the
Committee meeting held on May 26, 1965, three from the Dallas-Fort Worth Regional Transportation Study Office, and one each from the Dallas and Fort Worth District Engineers' offices respectively.

**Regional Advisory Planning Group**

The Regional Advisory Planning Group is composed of members from each of the seventy-six incorporated communities and nine counties in the study area. It occupies second place, next to the Coordinating Committee, in the hierarchy of the organization.* At one time consideration was given to making this Committee, rather than the Coordinating Committee, the policy-making body for the transportation study. However, because of its tremendous size (approximately eighty-seven members), which could have made the process of deliberation and decision-making a very difficult one, the idea was dropped. In addition, many small communities in the area were not willing or were not able to participate financially in the study. The main obligation of this Committee is to cultivate support and inspire interest among its clientele and provide acceptance of the study plan (9, p. 9). Besides, this Committee is capable of and is in a position to make recommendations to the Coordinating Committee. In response to an inquiry,

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*See Appendix, Chart No. III.*
made by the mayor of Highland Park regarding the part to be played by a member of this Committee, the Planning Engineer, in his letter of June 16, 1965, stated that

In response to your question relating to the part the town of Highland Park would be playing in the Regional Advisory Planning Group, it is my opinion that . . . this planning group would be in a position to make recommendations to the Coordinating Committee, which is the policy making body of the Study (11).

Very few meetings have been held by the Regional Advisory Planning Group. The members were kept informed and posted by letters, monthly reports and telephone calls from the Office of the Planning Engineer.

**Technical Committee**

There are thirteen members, representing seven larger cities of Dallas and Tarrant counties and the Bureau of Public Roads, on the Technical Committee of the transportation study. As mentioned earlier, these members of the Committee are highly specialized and expert in their relative fields and capable of providing technical and professional advice to the Administrative Engineer. It is important to note that there is an exclusive representation, from the larger cities of Dallas and Tarrant counties, on the Technical Committee. This seems logical and practical due to the fact that smaller cities usually do not have amply-qualified and experienced personnel to meet the qualifications of the Technical Committee's membership. Thus, there are
four members from the city of Dallas, three from the city of Fort Worth, one each from Arlington, Garland, Irving, Mesquite and Grand Prairie, and one from the Bureau of Public Roads (12).

By the end of June, 1966, there had been eleven meetings attended by the members of the Technical Committee. The Planning Engineer, as a usual procedure to call a meeting, sends a letter a week in advance to each Committee member, informing him of the purpose, date and place of the meeting (26). The Committee members in these meetings usually discussed and tried to solve complex technical transit problems of land use, trip forecasting* and population distribution and forecast in the study area. In addition to meetings, communication between the members of the Committee and the Planning Engineer for consulting and advising is carried out through letters and telephone calls (26). The Planning Engineer is required by the Coordinating Committee to send a monthly technical report to each member of the Technical Committee for review and comments (12).

In summation, the main duty and obligation of the Technical Committee, under the transportation study objective,

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*Trip forecasting is based on surveys of vehicular movements made by the general public. Trip forecasting study is necessary to determine the present and future public driving behavior pattern and thus determine street and highway needs.
is to provide professional guidance in everyday technical problems that arise in the transportation study (18, p. 36).

**Public Relations Committee**

The Public Relations Committee is comprised of only two members, and thus it is the smallest among the committees. The members of the Committee are appointed by the Planning Engineer with the approval of the Coordinating Committee. They are selected with care and discretion. In addition to the necessity that its members be very articulate and influential, they usually have access to various kinds of publicity media—newspapers, radio, and television. This is the only Committee whose members are not government officials. The present members are the members of the Dallas and Fort Worth Chambers of Commerce Highway Committees (21).

There is no evidence that this Committee has held any meetings. All business is carried out by letters and telephone calls. The objective of the Committee, which is defined by the prospectus and approved by the Coordinating Committee and the Planning Engineer, is to promote cooperation from the various governments in furnishing pertinent data, to advise them on the progress of the study and to promote public acceptance of the transportation study (9, p. 8).

Judging from the activities and the results achieved by the Committee, as late as the middle of 1965, it seems that
the Committee has failed in its primary objective of getting public cooperation and acceptance of the transportation study. For instance, an appeal was made by the Planning Engineer, in the *Fort Worth Star-Telegram*, on May 28, 1965, requesting local units to sign junior agreements. The appeal reads: "We just have not received the cooperation we had expected" (16, p. 6). There are some other reasons for the Committee's inactivity and lack of use of publicity media, besides the Committee's membership limitation to only two counties, Dallas and Tarrant. It is a traditional policy of the Texas Highway Department not to seek any kind of publicity through any media (26). However, full cooperation is extended by the Department if the information is sought by the press and other such media. Another reason is the nature of the highway information which may be easily exploited by an individual or a group of individuals for personal interest as premature release of such information may cause speculation resulting in the sharp decline or rise of property values.

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*There is no evidence, whatever the reasons may be, that the Committee has made efforts to use radio or television for publicity purposes (10). However, there have been several press releases in local newspapers (8).

**For instance, according to findings of the transportation study a certain existing highway may become obsolete in the very near future and a new highway route may be recommended by the study plan away from the old highway. It is highly probable that people may exploit this information.
incomplete stages in a complex and continuous highway planning study which necessitate frequent changes in the study, and, therefore, the Planning Engineer and his subordinates are reluctant to release incomplete information which they may have to contradict or retract later (21).

**District Administrative Engineer**

Provisions and conditions in the prospectus, which were agreed upon and approved by the various participating parties, provided for the appointment of an Administrative Engineer (or Planning Engineer) by the Texas Highway Department's District Engineers in the study area (18, p. 39). There was some inter-district rivalry and competition between the Dallas and Fort Worth Highway Districts for the appointment of the Planning Engineer for the study (1). Each district engineer based his claims on different grounds from that of the other for appointing one of the men from his district for the job. The Dallas District Engineer based his arguments on the fact that his district has a larger population and contributed more financially toward the study. The Fort Worth District Engineer argued, on the other hand, that his candidate had more experience and seniority. Qualifications which the prospectus required for the Planning Engineer were:

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for setting up business opportunities along the proposed highway, resulting in a sharp decline in property values along the old highway and a rise in property values along the new one (21).
The man selected for this position should be an Engineer with wide experience, a knowledge of the organization of the Highway Department and well versed in the urban problems. He should be able to deal effectively with representatives of the City, County, and other agencies, and in most instances should be an Engineer III or higher (18, p. 39).

Finally, the Planning Engineer from the Fort Worth District, who met adequately the qualifications for the job prescribed in the prospectus, was appointed. As a conciliation and compromise gesture, the second highest official in the hierarchy of the organization was appointed, with mutual consent by the two District Engineers, from the Dallas District.*

The Administrative Engineer was given broad administrative, fiscal and personnel powers along with the responsibilities to supervise and coordinate various study operations necessary to complete the study plan. In addition to administrative duties and obligations, the Administrative Engineer was required to submit monthly progress reports, financial statements and technical reports to all of the committees' members (18, p. 39). He was also made responsible to carry out the policies and decisions made by the Coordinating Committee. In short, the Administrative Engineer was to coordinate and supervise numerous activities of the study and also to keep informed of progress and development of the

*See Appendix, Chart No. III.
study all the committees and various governmental units within the study area (18, pp. 39-40).

Some Organizational and Administrative Problems

In the initial stage of the study, the main problems with which the Planning Engineer was confronted were the enormous size and complexity of various factors involved in the development of an overall study plan. There were some transportation studies which had been made in Texas and elsewhere in the country previously, but these studies were mostly confined to one or two cities or to much smaller and less complex metropolitan areas. Nevertheless, reference materials, reports and agreements from these studies were available as reference and guideline. In addition to these materials, the findings of the National Committee on Urban Transportation were available in published form. However, as the Coordinating Committee in its first meeting pointed out, such material is "city oriented" and may be used as "reference texts, but is not applicable to our Study in many respects" (3, p. 10). Thus, the development of the study plan began on a trial and error basis, as no adequate administrative and operative guidance was available.

In the absence of any general organizational guideline, the Planning Engineer, in addition to the appointment of the Senior Resident Engineer, recommended the appointments of
three more engineers. Thus, there were five officials in the organization at various administrative and supervisory levels.* Basically, these officials were technical personnel and were trained in various subfields of engineering. Normally they were not expected to be very well-versed in purely organizational and administrative principles and practices. Lack of organizational training aggravated the problem of organization to some extent in the early stage of the study. However, this deficiency was soon overcome.

The Planning Engineer decided to take certain measures for operational and administrative purposes by making use of the above mentioned reference material as much as applicable (26). Under these measures, large complex transportation problems were divided into smaller and simplified components. Each of the officials was assigned to one of these components or projects and was placed in charge of and made responsible for its development and completion.** A full control regarding decisions, measures to be taken, access to materials and office machines and number and selection of personnel was given to each of these officials for the remainder of the project (17, 26). This policy of the

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*See Appendix, Chart No. III.

**For example, Bob Hodge was in charge of land use, Fritz Becke was responsible for population, Sammuel Hamill for capacity study; and Charles Winter was supervisor of personnel below the management level.
Planning Engineer of making each individual responsible for his project inspired in each official confidence and trust in himself. In addition, it made him fully aware of his own responsibility and accountability for the success or failure of the project. Consequently, these project officials made their best efforts and used all their initiative and ingenuity to make these projects successful. In addition, the Planning Engineer made himself and the members of the various committees available for information, advice and guidance whenever needed and sought by the project officials.

For the purpose of coordinating functional activities of the personnel below the supervisory level, the Administrative Engineer appointed one of the officials as a supervisor. His primary duties were to assign appropriate work to individuals and groups of individuals and to provide solutions for problems arising out of such assignments. Most of the non-supervisory personnel were high school graduates and some had one or two years of college. All had little or none of the knowledge or experience normally necessary for highway planning jobs (5). Compensation and competence established a cause and effect relationship regarding inadequately qualified personnel at the lower levels in the organization. The temporary nature of the study itself did not attract career and well-qualified persons, and the State Highway Department was not prepared to pay professional standard salaries to the temporary and non-technical personnel of the study. As there was
a majority of the personnel which was not adequately trained or experienced, an on-the-job training program was adopted for the various phases of the study projects (26, 29).

Various means and measures were employed by the administration to provide the members of the organization with incentive, motivation and high morale and attitude (26, 29). Those persons who displayed qualities of leadership for organization, supervision and cooperation, initiative, interest and diligence in their work were promoted, given periodic pay raises and provided with status symbols, such as being given a separate office with necessary equipment or appointed supervisor over two or more persons. Persons with specific skill and talents were given frequent small pay raises as recognition of such qualities. These measures in their cumulative effects produced desirable results as the administration seldom had to remind the personnel that they were behind schedule or that the quality of work suffered because of low morale or wrong attitude (26).

Deliberate efforts were made, particularly by the Administrative Engineer, to create an informal and relaxed atmosphere in all relationships on all levels. All the officials and the personnel members mingled, conversed and addressed each other by first names* during coffee-breaks and

*The Planning Engineer was addressed by his initials, J. R.
lunch hours. It became a sort of tradition to bring cake and celebrate the birthday of each member of the organization. Again to provide opportunities to mingle outside the office, a baseball team was formed and all persons who were interested in the game participated. Outdoor picnics and Christmas parties were regularly held where families of the members of the organization met and became well acquainted with each other.

Collective effects of the measures adopted by the administration for an informal and relaxed atmosphere, in general, produced feelings of mutual thoughtfulness and loyalty and a sense of belonging to the organization resulting in an attitude and morale of the personnel which helped to run smoothly the operations of the organization (26). However, this does not mean that there were no problems. Frustrations and resentment were displayed by individuals who either failed to get promotions or salary increments or even those who had to park their cars away from the office due to insufficient parking space. Some people in the office also were unhappy and complained frequently about the temperature in the room. Either it was too cold or too warm for them.* But these were comparatively

*Many members, particularly women, were in the habit of adjusting room temperature according to their likings, which created quite a commotion. Finally, the management posted a notice instructing the personnel not to disturb the set room temperature by adjusting and readjusting the thermostat (29).
minor problems which were solved by the administration in due time (29).

Summarizing and evaluating the significance of the internal organizational and personnel policies developed by the Planning Engineer, one may conclude that they were effective and efficient for the development of the transit plan. Development of these policies was made possible by allocating broad discretionary powers to the Planning Engineer who in turn gave broad decisive powers to his project officials. Initiation and development of complete organizational and personnel policies were essentials, especially when there were none available for complex and major urban comprehensive transportation study projects, such as the Dallas-Fort Worth Regional Transportation Study. Realization of these essentials not only has facilitated the completion of the study plan but also will provide a model for future such studies in Texas and elsewhere in the country.


CHAPTER V

INTERGOVERNMENTAL RELATIONS IN THE TRANSPORTATION STUDY

The Dallas-Fort Worth Regional Transportation Study involved many autonomous governments at all levels, requiring their cooperation and necessitating some delegation of responsibility to the agency established to conduct the study. It provided, therefore, an opportunity for extensive intergovernmental cooperation at the same time that it presented the occasion for problems in intergovernmental relationships.

The administrative arrangements for the conduct of the study had to be made within this context, and particular care had to be taken to insure adequate communication between participating governmental units. To this extent the Regional Transportation Study constitutes a case study in the problems of intergovernmental relations inherent in an operative federal system and in administrative provision for effectuating cooperation.

The intergovernmental relationships posed some serious problems in developing the transportation study. One such problem was raised by the city of Fort Worth in the early stage of the study. During the meeting held on December 18, 1963, for discussion and adoption of the prospectus and the
major agreements, the City Manager of Fort Worth stated that he was under the impression from the study office that the transportation study would undertake an extensive and comprehensive parking study in the central business district of Fort Worth, and its expenses would be paid from the funds allotted for the study (8). He further stated that "our City Council has delayed action on a proposed city parking study because of an indication of your office that such a study will likely be conducted as a part of the urban transportation study" (3). The issue was not decided until January, 1964, when a letter from the State Highway Engineer firmly rejected the Fort Worth plea for such a study. The letter reads that

... expensive studies should be avoided both because of cost and time element ... we understand that a complete comprehensive parking study ... would cost $250 per block. We doubt, if this type of [parking study] is necessary for our purposes and it may be more than the City contemplated (12).

The city of Fort Worth had two choices: either to participate in the study by signing the major agreement or to reject participation by refusing to sign it. The ultimate decision was to sign it. The significance of the issue was that in the early stage if one of the major interested parties refused to sign the major agreement, it would have jeopardized the whole study project.

Another circumstance reflects the dilemma of the state when faced with carrying out requirements from the federal
government when compliance is dependent upon voluntary local cooperation. The Planning Engineer was concerned as most of the local units failed to sign the junior agreements by the target date of January, 1965. In his letter of May 14, 1965, to the Dallas District Engineer, he mentioned the reason for this lack of cooperation in signing agreements. He stated that "The chief reason given for city--failure to execute a Junior Agreement--/sic/ is fear of being obligated for some of the cost of the study" (14).

This was an important consideration as the Bureau of Public Roads was very particular about securing local cooperation for the study; and such cooperation could only be obtained through a legal and binding contract, such as a junior agreement, which was prepared under the advisement of the Bureau to meet the requirements of the Federal Aid Highway Act of 1962 (10). If a majority or a substantial number of governmental units in the study area failed to sign contracts, then the study could not be carried out, as local cooperation for the comprehensive study was a major requirement. The reason for lack of local cooperation was the absence of a specific clause in the junior agreement declaring that there was no financial obligation on the part of contracting parties for the study. This made local units, particularly the smaller cities in the study area, apprehensive. The Planning Engineer, in an interview on this
point, disclosed that the junior agreement could not include such a specific clause, as the agreement also covered the continuing phase of the study which might in the future require some financial participation from the local units for some transit studies in their jurisdictions (13).*

Fear of financial involvement in signing the junior agreements on the part of small cities was exhibited in a typical case by the city of Euless in Tarrant County. A meeting of the Euless City Council was held on July 28, 1964, to consider the junior agreement. The City Manager of Euless requested the City Attorney to study the agreement and express his opinion about it. The Attorney's interpretation stated that

... the purpose is to provide a comprehensive planning process to develop a transportation plan ... . This agreement does not specifically request monetary compensation at the present time, but it indicates that it will be necessary to have financial aid for participating in the future ... (7).

A resolution was passed by the City Council agreeing to sign the agreement with the stipulation that there would be no monetary compensation on the part of the city of Euless for having participated in the study (7).

The cities of Richardson, Highland Park and University Park have refused to sign the junior agreements on

*Later the Bureau of Public Roads made it clear that a separate contract would be required for the continuing phase of the study (11, p. 1; 6). This requirement made the junior agreement obsolete for the continuing phase of the study.
various grounds. However, only the city of Richardson officially responded to the numerous personal and official inquiries of the Planning Engineer regarding the refusal to sign the agreement. The letter explaining the refusal was sent to the Planning Engineer on August 19, 1965, by the City Manager of Richardson. It reads:

Gentlemen, the City Council has carefully studied the proposed agreement regarding the Regional Transportation Study and respectfully declining to enter into the agreement at this time, since we do not feel that our interests are adequately represented by the Coordinating Committee.

The Planning Engineer and the Senior Resident Engineer were interviewed regarding motives and objectives of the three cities for their refusal to sign agreements. The Planning Engineer commented that these cities fail to understand the significance of a comprehensive transportation study as at the present time their fiscal and technical facilities are adequate to cope with transportation problems in their areas. The Senior Resident Engineer, who personally contacted the officials of these cities on many occasions, explained the reason in his report to the Planning Engineer on June 10, 1965:

It should be remembered that University Park is completely developed and has a good access to the Dallas central business district and other places of employment. For this reason the City cannot see why they should pay to widen their streets (and lose many fine old trees) to accommodate those who must pass through their City.
The Senior Resident Engineer was not much disturbed by the uncooperative attitudes of these cities. He tended to believe that the city officials involved have in mind solutions for these problems in long-range and immediate future possibilities. His perception of what these officials might be thinking is that they believe that the traffic problems in and around their cities will soon become so acute and intolerable that the state or the city of Dallas will be forced to assist in providing a solution to the problem of traffic congestion (2). He seemed to rule out any statutory solutions in the foreseeable future to solve the problem of lack of cooperation, as he believed that any such measure or measures would aggravate the problem instead of solving it. In long-range solutions, he considers that there will be a change of attitudes and feelings as the old generation dies or moves out of the cities. The new generation may not be as sensitive to the "dangers" of cooperation and may have a different outlook on these problems. Old houses and congested areas in these cities may bring down property values in the long run and eventually encourage residents to seek ways for improvement and widening of streets and roadways in these areas (2). As of November, 1966, the situation has not changed, as the three cities have so far not consented to sign the agreements. Thus, the problem remains unresolved at the present time.
The cities of Highland Park, Richardson and University Park are located in important parts of Dallas County, so far as industry, population and access to the various towns in the county are concerned. The Bureau of Public Roads, taking into consideration these factors and their importance in developing a comprehensive transportation study plan for this area, has informed the transportation study office through the State Highway Engineer that incomplete coverage of the area by the agreement may cause some serious complications. The Bureau, referring to such complications, sent a letter to the State Highway Engineer on June 2, 1965, stating that

Due to the geographical locations of some of the communities, it is possible that their unwillingness to cooperate could negate an effective planning process. Some of the more critical locations in the Dallas-Fort Worth area are Highland Park, Richardson, and University Park . . . . "We" urge you to continue in your efforts to obtain complete coverage for all the studies, especially for the larger towns in each of the areas above (3).

An important implication here is that the Bureau can refuse to approve the transportation plan for the entire urban area, if in the Bureau's opinion the refusal of the noncooperating parties within the study area will affect the transportation plan adversely. In other words, if the transportation study recommends widening and construction of certain streets and roadways within and through the jurisdictions of the unwilling authorities and they refuse to
allow implementation of such recommendations, then the degree of adverse effects of such refusal will be determined by the experts and specialists of the Bureau. This may lead to a nonapproval of the whole study and consequently to refusal of federal aid, as the Act requires that the transportation planning be carried out "cooperatively by States and local communities."

In addition to the above controversy over three cities in Dallas County, there was some disagreement between the Bureau and the study administration over the continuing phase which was required by the 1962 Act. The Bureau's requirement for a separate contract with each individual local unit to cover the continuing phase of the study was regarded by the study office as unnecessary because the junior agreement amply covered such a phase. However, the Bureau insisted; and finally the study administration agreed to cover the continuing phase by separate contracts with the local units. The reason given by the Planning Engineer for such a coverage was "either comply with Bureau's requirements or face the possibility of losing federal aid for the project" (13). A separate draft contract was prepared, under the guidance of the Bureau, by the State Highway Department to cover the continuing phase of the study (11, 5).

The Planning Engineer in an interview on June 23, 1966, was asked to describe the power relationship between the
federal and state governments in the administration of federal aid. The Planning Engineer in this interview made several observations and evaluations concerning this relationship (13): Administrative control for the transportation study as normally conceived does not lie with the State Highway Department or any of its subdivisions. As a matter of fact, the Bureau as the main agency of the federal government under the provisions of the federal acts usually has the last word to say in controversial matters, as in the cases of the three cities and the contracts for the continuing phase of the study. Federal aid is not given without strings attached. Sometimes, due to the unfamiliarity of its officials with local conditions and environment, the Bureau fails to take into consideration the extent of the local problems in administering federal aid highway projects.

As discussed earlier, the source of the Bureau's extensive administrative powers is the Congressional legislation. With the passage of each federal act, additional responsibility and authority vis-a-vis the state is delegated to the Bureau. As provided in the 1958 Act,

The Secretary shall have authority to approve in whole or in part the Federal-aid primary system, the Federal-aid secondary system, and the Interstate System, as and when such systems or portions thereof are designated, or to require modifications or revisions thereof. No Federal-aid system or portion shall be eligible for projects in which Federal funds participate until approved by the Secretary (15).
Another source of the Bureau's authority is its right to interpret and implement Congressional laws as it sees and understands them. For instance, Section 134 of the Federal Aid Highway Act of 1962 reads:

It is declared to be in the national interest to encourage and promote the development of transportation systems, embracing various modes of transport in a manner that will serve the States and local communities efficiently and effectively. To accomplish this objective the Secretary shall cooperate with the States, as authorized in this title, in the development of long-range highway plans and programs which are formulated with due consideration to their probable effect on the future development of urban areas of more than fifty thousand population. After July 1, 1965, the Secretary shall not approve under section 105 of this title any program for projects in any urban area of more than fifty thousand population unless he finds that such projects are based on a continuing comprehensive transportation planning process carried on cooperatively by States and local communities in conformance with the objective stated in this section (16).*

The Planning Director of the Bureau of Public Roads issued to all urban transportation planning agencies a fifteen-page "Instructional Memorandum," including a supplement, as an interpretation and explanation of Section 134 of the 1962 Act (10). It is interesting to note that in the above passage the italicized phrases together are nineteen words. However, it took the Bureau more than 5,000 words to define and interpret these phrases. For instance the term cooperatively is interpreted by the Bureau as follows:

*Italics are supplied.
The establishment of a formal procedure—supported by a written memorandum of understanding—between the State highway departments and the governing bodies of the local communities for carrying out the transportation planning process in a manner that will insure that the planning decisions are reflective and responsive to both the programs of the State highway departments and the needs and desires of the local communities. The agreement may be directly between the State highway department and an agency or agencies embracing the urban area encompassed in the transportation planning process qualified to act in behalf of the local jurisdictions for this purpose. The State highway department will be expected to carry out the intent of the Act with respect to cooperative action by all political subdivisions. If there is an unwillingness on a part of a local political unit within the entire urban area to participate in the transportation planning process in such area, a determination shall be made as to whether the percentage of the urban area affected is such as to negate an effective planning process for the whole area (10, p. 4).

Not only does the Bureau extend its authority by interpreting Congressional acts but also increases it by laying down in detail ways and means for the execution of these acts.

On the basis of the circumstances discussed in the foregoing pages, the Bureau has accumulated, through legislative delegation, interpretation and implementation of the Congressional acts, extensive powers to govern intergovernmental relationships. Its authority and domineering position in such relationships has become a source of frustration and irritation for the state and its agencies as is apparent from the interviews with the Planning Engineer.
Summary and Evaluation

One basic power relationship seems to govern predominantly the intergovernmental relationships in the development of the transportation plan for the north central Texas region. This power relationship is the dominant role of the Bureau of Public Roads. This aspect of the Bureau's ascendancy is by virtue of its extensive delegated and acquired powers to guide, provide leadership and, most of all, its almost arbitrary powers of final decision in all controversial matters regarding establishment, development and completion of the comprehensive transportation study plan. This tendency of federal preponderance that exists in the state-federal relationship tends to create some administrative problems in the development of the study plan. The Bureau, in order to pursue its primary objective of effective and efficient administration of federal highway policies for the development of the national system of highways, tends to overlook local problems and insists that the state and its agencies follow its decisions.

However, the Bureau's role appears mainly dominant only in controversial situations, which are very few. The Bureau and its counterpart at the state level work in harmony and cooperation in developing the transportation plan most of the time. The study administration has freedom, without any interference from the Bureau, in formation, in adoption and
in execution of its internal organizational and personnel policies. Thus, the state-federal relationship is cooperative in most of its aspects.

The state-local relationship presents quite a different picture from that of the federal-state relationship in developing the transportation study project. The state agency, in contrast to the federal agency is not provided with adequate statutory authority to require local units to concern themselves with achieving broader highway objectives than those which are a part of their jurisdictional transportation problems. Thus, the state finds itself faced with requirements imposed upon it from the federal level which require local compliance. However, it has no sanction for compelling this compliance and so may find itself at a serious disadvantage in its efforts to carry out its responsibilities. This circumstance poses once again the problem of the need for vesting authority commensurate with responsibility, a constant problem for our states and a growing one as efforts at federal-state-local cooperation increase.
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CHAPTER VI

CONCLUSIONS AND RECOMMENDATIONS

Changes in Separation of Powers

Framers of the American Constitution were influenced and guided by the western political thought of the seventeenth and eighteenth centuries and particularly by the traditional Anglo-Saxon concepts of the supremacy of law, rights of the individual and the limited executive. The provisions of the American Constitution, leading to the doctrine of the separation of powers or checks and balances system of government predominantly reflect these influences. The American economy at the time of initial implementation of the Constitution was agrarian and rural in nature. The Constitutional provisions for the three separate or independent branches of government were effective and proved efficient for America's comparatively simple agrarian economy and rural society of the last two centuries. The three branches of the government--legislature, judiciary and executive--carried out their respective responsibilities with a minimum degree of interdependence and interference from each other. However, socio-economic and technological progress which started in the middle of the nineteenth century has changed greatly the pre-industrial American scene.
The character of the American economy has changed from agrarian self-sufficiency to industrial affluence. Technological inventions and industrial progress have led to the development of rapid means of communication and transportation which have greatly reduced the distance barriers. Impacts of the industrial revolution have caused shifting of populations from rural to urban areas, changing drastically the earlier predominantly rural American life to the present-day predominantly urban pattern. Consequently, the eighteenth- and nineteenth-century pattern of isolation—both internal and external—has shifted into an all-out participation in state, national and international affairs. As a result of this progress and participation, American government activities have increased many fold in all their aspects, including local, state and federal and executive, legislative and judicial at each level.

The changes produced by contemporary industrial and urban America greatly reduced the effectiveness of the conventional and orthodox utilization of the apparatus of government. Thus the traditional governmental structure needed to be adjusted to the increased activities of the government and the public demand for efficiency and economy. Consequently, a gradual adjustment was made, providing greater flexibility in the traditional relationships of the three branches of government. Congress, which is primarily
responsible for making legislation, has resorted to the delegating of authority to the executive branch and its agencies and bureaus. The average congressman lacks the technical and expert knowledge required to solve the complex problems of modern society and has little time to learn these techniques. Consequently, the logical choice to solve such complex problems was the executive agencies and bureaus which are staffed with highly technical and expert personnel. As a result, in John Pfiffner and Robert Presthus' words, "A large body of rules and regulations appeared, made and enforced by administrators, under powers delegated to them by legislators unable to meet the demands of an industrial society for expertise and flexibility" (6, p. 443).

Congressional delegation of rule-making powers or authorization for executive "participation in the making of decisions" (3, pp. 74-75) involves the nature, distribution and exercise of power. Delegations made, in turn, necessitate definition and implementation, as policy without implementation does not produce result. Thus bureaucracy, which has accumulated powers extensively through Congressional delegation plus administrative interpretation and application of Congressional policies is, in Peter Woll's words, "... not merely carrying out law, rather it is deeply involved in the determination, interpretation, and execution of law" (7, p. 5). However, Congress has set up a basic guideline and framework
through its laws within which the rule-making authority of an executive agency operates. Intent and scope of the Congressional delegation of authority can be ascertained, if such is found necessary, through judicial review. Thus, there is a limit which a bureaucratic agency cannot exceed in its power of rule-making.

In sum, then, one finds that changes brought by the industrial revolution which increased governmental activities many times revealed some of the weaknesses in the separation of powers concept in the American system of government. A gradual introduction of some degree of flexibility was made in the relatively rigid and independent pre-industrial system of American government. Congress, which constitutionally is the legislative body, began to delegate its power of rule-making with basic guidelines to the administrative branch for an effective and efficient accomplishment of public needs and services. Thus bureaucracy increased its sphere of administrative and functional influence. Present-day bureaucratic agencies are in a position to influence the public and legislators to make them realize that certain problems exist and should be solved. At the same time, bureaucracy is able to show its willingness, desire and, most of all, its ability to solve such problems with efficiency. Consequently, the bureaucracy is in an advantageous position for being granted authority to expand its functions. Further, an agency's support from its clientele
and its own ability to initiate and influence Congressional legislation has assured its continued existence and expansion. Its existence is also insured by the fact that society tends to rely increasingly upon its services.

Administrative and functional growth of the Bureau of Public Roads in providing for national transit needs is a typical example of a bureaucracy's growth pattern. The Bureau, then known as the Office of Road Inquiry, came into existence in response to the public demand for better highways and organization to develop such highways. Its power for building a national highway system increased basically through Congressional delegation of authority and interpretation and execution of Congressional highway laws. However, the fact that, once established, it provides needed services justifies its expansion. Further protection for its existence and growth comes through its close association with state and local agencies, various civic and public groups and with the Congress. Thus, the Bureau both illustrates and forms a part of this general pattern of growth of the federal bureaucracy. This growth in turn is indicative of the flexibility and adaptability of the American governmental structure which is capable of changing to stay with the tempo of changing socio-economic norms.
Modifications of Intergovernmental Relations

Factors mainly responsible for the growth of the federal bureaucracy also provided opportunities for federal and state cooperation and interdependence within the federal system of the United States. The nature of federal-state relations has changed greatly from one that was based on mutual distrust and limited relations toward one which emphasizes the areas of cooperation and interdependence. The Articles of Confederation voiced the state's rights doctrine in its declaration that all states forming the Union are free, independent and possessed of all powers except those expressly delegated to the federal government (4, p. 10). After the inception of the Constitution and particularly in the Jeffersonian and Jacksonian era, the federal government activities were minimal. The emphasis was upon limited federal powers and enhanced state's rights and authority. The prevailing situation of the period has been characterized as: local and state loyalties instead of national, interstate suspicion and localized business with only few business leaders favoring the national government, and inactive government with very few functions (4, p. 79).

The need for federal-state cooperation in numerous areas has expanded because of the public demands for effective and efficient services. State and local governments basically have not developed adequate financial resources to satisfy
these public needs. Consequently, federal cooperation was sought and given. In many areas of cooperation, the federal participation provides finances, leadership, advice and guidance and thus control of many joint projects in health, education and, particularly, highways. These joint cooperative efforts have proved very effective over the period of time in providing for public needs. For example, federal-state-local cooperation has developed hundreds of thousands of miles of modern highway systems in the country in the last fifty years. Highways and other services needed by America's twentieth-century society can only be met through cooperative efforts of governments on all levels. Separately no one government is capable of satisfying such needs. Thus, this is quite a different picture from the earlier one where cooperative efforts were not only minimal but no steps were taken to encourage such efforts.

The evolution of administrative bureaucracy from the separation of powers concept and the growth of cooperative federalism which arose from the limited federal government and state's rights theories have the same objectives of providing for public needs effectively and efficiently. It is thus natural that these two American governmental concepts have had parallel patterns of change as they have developed to accommodate socio-economic and historical change.
Federal, state and local governments have participated in the development of highways through joint highway projects. The federal government, which provides the major share of funds for such projects, also has the largest control in administering them. Federal legislative policies for developing nationwide highway systems have required the states to centralize their public roads activities at the state level. It was in response to such requirements that the Texas Highway Department was established and most of the road activities coordinated through the Department. To carry out the intent and scope of the federal highway policy, the Bureau of Public Roads was given administrative authority which further increased its powers through interpretation and implementation of federal highway policies. Thus, the cooperative aspect which exists in the intergovernmental relations in the Dallas-Fort Worth transit study is part of the growth of the concept of federalism. Similarly, the bureaucratic agency, the Bureau of the Public Roads, is a manifestation of the shifts within the separation of powers or checks and balances concept.

Federal ascendancy in intergovernmental relations in the Dallas-Fort Worth joint transit project is partly due to its major fiscal participation and partly due to the Bureau's administrative control of the project. Thus, some of the problems which arose in developing the study plan are
inherent in the nature of intergovernmental relations and in
the federal administrative bureaucracy, which in turn are
related to and derived from federalism and the checks and
balances concepts, respectively. There still remain some
residual effects of local control in Texas counties, remnants
of the earlier dominant doctrine of state's and local rights,
which create some problems of coordination and uniformity in
administering the federal and state highway policies.

Administrative and Local Problems: Recommendations

Major administrative problems in the study project are
closely related in the intergovernmental relations and to the
Bureau's general administrative control. However, there are
some additional problems strictly local to the study area.
Recommendations regarding the major and local problems are
made realistically in the hope that these recommendations
might point a solution to some of the problems and reduce the
negative effects of others in future joint highway studies.

Some of the basic problems which exist in administering
federal aid highway projects are the product of the inter-
governmental relations which in turn are based on an unequal
distribution of power. Most of the aid functions are shared;
but the federal government as the initiator, the most affluent
and most progressive member of the partnership has a larger
share of control, advice, guidance and assistance than state
and local governments in developing the federal aid highway projects (6, p. 97). This federal preponderance creates feelings of inadequate control and authority on the part of the state agency or agencies involved in the joint projects. State and local financial inadequacy resulted in growth of federal aid, and as a result little effort was made to check the increasing federal role in highway projects; "... even those state politicians who decried the growth of the federal power usually were not prepared to forego available federal grants" (2, p. 74). The problems of federal preponderance will continue to exist in the federal-state-local relations unless state and local governments are prepared to share larger financial responsibility for highway projects. As this would mean a considerable increase in taxation, it seems to be of little possibility in the foreseeable future.

An efficient and responsive governmental structure is very important to the effective execution of public policies. In general, the states and their political subdivisions lack statutory uniformity and coordination in administering public road affairs. Problems of inefficiency and noncooperation are the logical consequence of such a situation. Most Texas counties operate under the precinct system and the state has only made it optional to adopt the unit system. The state, through mandatory legislation and through added conditional state highway aid, can encourage and motivate counties to
abandon the decentralized and inefficient precinct system in favor of the unit system which is more efficient and economical. Realization of this objective through statutory means will serve two important aspects of the intergovernmental relations. One is uniform and coordinated county road administration. This will facilitate better execution of state and federal highway projects and at the same time will relieve some financial burden of the poorer counties through additional state aid for roads and through economies in road administration under the unit system. Second is improvement of state-local relationships which suffer on account of the absence of close functional and administrative association between state and local units. Lack of such an association has encouraged federal-local participation in highway projects, a circumstance which the state and its agencies regard as federal interference in matters properly state in nature (7, p. 203).

The uncooperative attitude and unwillingness of some of the local units to participate in the study plan is another indication of lack of state statutory provisions which would facilitate achieving state and national transit objectives. The state, in response to federal highway legislation, has coordinated most of its public road activities under the State Highway Department through legislation and constitutional amendment. However, a similar coordination of efforts within local units is obviously lacking. A major obvious
reason is that it is not required in the present state highway laws. Local units in the study area were at liberty therefore to remain aloof and some preferred to assume this attitude toward even so important a joint highway project. Legislative or constitutional provisions requiring all political subdivisions in the study area to participate and cooperate in the highway project would deter and discourage local noncooperation and unwillingness. The significance of local cooperation for the joint transportation study is emphasized by the fact that unwillingness on the part of a few local units can endanger continuity of such projects, as the federal government may finally refuse to pay its share of expenses on the ground that full local cooperation for such joint highway projects is mandatory.

One of the major reasons for the delayed acceptance and signing of the junior agreements for the study plan was inadequate use of communications and publicity media. Promotion of a large, expensive and complex transit plan and its acceptance by the public at large and local governmental office holders in particular requires an elaborate and extensive use of publicity media. Information regarding goals of the study, its significance, the benefits to be realized from such a study and its progress may prove a useful device to expedite acceptance. Frequent public meetings at various places in the study area may be useful for relaying
information regarding the study. Articles by the study officials in local magazines and newspapers is another important means to promote the cause of the study. Frequent press releases in the major local newspapers regarding the study and its progress are important to popular support of the study. Use of radio and occasional television appearances, if possible, to cultivate support for the study will further assist its development.

It is not possible to eliminate entirely interdistrict or interdepartmental jealousy and rivalry in the State Highway Department when control and authority to develop such a huge highway study project is involved. Development, administration and completion of such a project carries with it much prestige. In order to claim this prestige and enhanced reputation, each District Engineer from the study area tried his best to appoint a member of his staff as the Planning Engineer of the project. This indicates the importance of other factors besides the qualifications outlined in the position prospectus in selecting the Planning Engineer for the study.

Minor technical and procedural problems involving the contents of the junior agreement may cause some delay and incomplete contractual coverage. The language and content of the junior agreement are ambiguous. The agreement fails to specify clearly that there is no financial obligation on the
part of contracting parties for the transportation study. This failure made several smaller units apprehensive about the project and caused confusion and delay. A specific clause should be included in the junior agreement stating very clearly that there is no financial responsibility for contracting parties for the study project. This may eliminate apprehension and may expedite local cooperation in future such studies.

Finally, one of the major areas of contention that exists in state-federal relations is the tendency on the part of federal officials to ignore local economic conditions and governmental structure in order to achieve greater efficiency and consistency. The Subcommittee on Intergovernmental Relations of the Committee on Government Operations, United States Senate, in its findings on specific and general aspects of the aid programs observes that "... administrative and financial practices and procedures must be geared to the needs of the individual program and not to any abstract standardized principles" (7, p. 98). Public Management in its May, 1966, issue sheds some light on the lack of understanding by federal officials of the local governments. It says: "... their [Federal administrators'] literal ignorance of governmental structure [state and local]... show[s] the magnitude of the problem (1, p. 122).
It would be advisable to develop a plan to provide federal officials assigned to federal-state-local transit projects with a basic understanding of the state and local governmental administrative and fiscal structure, including the system of taxation. It would be presumptuous to assume that, even after implementation of such plans for a considerable time, existing intergovernmental problems would disappear completely. However, such a plan would considerably reduce the unrealistically general federal approach to local area transportation projects.

Viewed in a larger context, these problems seem to form part of the basic and broad forces of a viable federal democratic political system of government. In a federal system, in large cooperative activities, initial appropriation of funds and delegating of authority come from one layer of government. This and other layers participate in providing administrative control, policy directives and rule-making. Support, advice, criticism and censure come from each layer and from individuals and interest groups. Areas of responsibility and obligation and administrative behavior in the intergovernmental relations on various levels in the federal system are not clearly or permanently defined. Nevertheless, these relationships constitute the basic forces of the system which mold and sustain the complex, interdependent, controversial and cooperative behavior of intergovernmental relations inherent in a federal system (6, p. 99).
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APPENDIX
ORGANIZATION CHART NO. I

BUREAU OF PUBLIC ROADS

DEPARTMENT OF COMMERCE

BUREAU OF TRANSPORTATION

BUREAU OF PUBLIC ROADS

HEADQUARTERS OFFICE

EIGHT STAFF OFFICES

FIELD OFFICE

NINE REGIONAL OFFICES

FIFTY DIVISIONAL OFFICES

SOURCE: U. S. GOVERNMENT ORGANIZATION MANUAL, 1965-66
ORGANIZATION CHART NO. II
TEXAS HIGHWAY DEPARTMENT

STATE HIGHWAY COMMISSION

ASSISTANT STATE HIGHWAY ENGINEER

STATE HIGHWAY ENGINEER

ASSISTANT STATE HIGHWAY ENGINEER

DEPUTY STATE HIGHWAY ENGINEER

CHIEF ENGINEER OF PLANNING

CHIEF ENGINEER CONSTRUCTION
MAINTENANCE

CHIEF ENGINEER OF OPERATIONS

TWENTY-FIVE DISTRICT ENGINEERS

SOURCE: TEXAS HIGHWAY DEPARTMENT
ORGANIZATION CHART NO. III

DALLAS-FORT WORTH REGIONAL TRANSPORTATION STUDY

COORDINATING COMMITTEE

DISTRIBUTION ADMINISTRATIVE ENGINEER

TECHNICAL COMMITTEE

PUBLIC RELATIONS COMMITTEE

SENIOR RESIDENT ENGINEER

ENGINEERING TECHNICIAN

ENGINEERING ASSISTANT

ENGINEERING ASSISTANT SUPERVISOR

CALCULATION SECTION

DRAFTING SECTION

LAND USE SECTION

PLANIOMETRY SECTION

POPULATION SECTION

UP-DATING SECTION

SOURCE: TEXAS HIGHWAY DEPARTMENT
**CHART NO. IV**

**INCORPORATED CITIES IN THE STUDY AREA**

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**SOURCE:** DALLAS-FORT WORTH REGIONAL TRANSPORTATION STUDY PROSPECTUS
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