

URBAN TRANSPORTATION PLANNING IN THE UNITED STATES

An Historical Overview



Edward Weiner

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to my children
Jennifer Lynn and Michael Andrew

PREFACE

Recent evolution of the urban transportation planning function has placed greater emphasis on the role of state and local decision makers in the implementation of transportation system changes. In this context, it is important to understand the transportation and planning options that have been tried, and how they developed into the approaches we have today. This book describes the evolution of urban transportation planning over the last fifty years.

The book focuses on key events in the evolution of urban transportation planning including developments in technical procedures, philosophy, processes, and institutions. But planners must also be aware of changes in legislation, policy, regulations, and technology. These events have been included to provide a more complete picture of the forces that have affected and often continue to affect urban transportation planning.

This book is an updated version of "Evolution of urban transportation planning," which was published in 1979 as Chapter 15 in *Public Transportation: Planning, Operations and Management*, edited by George E. Gray and Lester L. Hoel (Englewood Cliffs, NJ: Prentice-Hall, 1979). The earlier version discussed urban transportation planning to mid 1976. This book updates the evolution of urban transportation planning and policy to the end of 1985. It also contains many additions and some revisions to the earlier edition.

A "Chronology of Significant Events" has been added in an Appendix. It was originally prepared as lecture notes to assist the author in describing the subject matter. It is hoped that this chronology will aid the reader in following the sometimes intricate web of events in this field.

Summarizing so much history in a short book requires difficult choices. The efforts of many individuals and groups made important contributions to the development of urban transportation planning. Clearly, not all of these contributions could be included or cited. This book concentrates on the key events of national significance and thereby tries to capture the overall evolution of urban transportation planning. Focusing on key events also serves as a convenient point to discuss developments in a particular area.

The book is generally arranged chronologically. Each period is titled with the major theme pervading that period as viewed by the author. Not all key events fit precisely under a particular theme, but many do. The discussion of the back-

ground for some events or the follow-on activities for others may cover more than one time period and is placed where it seemed most relevant.

Over the years, the author has discussed these events with many persons in the profession. Often they had participated in or had first hand knowledge of the events. The author appreciates their assistance, even though they are too numerous to mention specifically.

In preparing this book, the author was directly aided by several individuals who provided information on specific events. Their assistance is appreciated: Elizabeth A. Parker, Barry Berlin, Sam Rea, Thomas Koslowski, Norman Paulhus, James A. Scott, Norman Cooper, Camille C. Mittelholtz, Ira Laster, John Peak, and Carl Rappaport.

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Any errors of fact or interpretation are the responsibility of the author.

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1

INTRODUCTION

Almost twenty-five years have passed since the Federal Aid Highway Act of 1962 created the federal mandate for urban transportation planning in the United States. The act was the capstone of two decades of experimentation and development of urban transportation procedures and institutions. It was passed at a time in which urban areas were beginning to plan Interstate highway routes through and around their areas. The 1962 Act combined with the incentive of 90 percent federal funding for Interstate highway projects caused urban transportation planning to spread quickly throughout the United States. It also had a significant influence on urban transportation planning in other parts of the world.

In some ways, the urban transportation planning process and planning techniques have changed little over the twenty-five years. Yet, in other ways, urban transportation has evolved over these years in response to changing issues, conditions, and values, and a greater understanding of urban transportation phenomena. Current urban transportation planning practice is considerably more sophisticated, complex, and costly than its highway planning predecessor.

Modifications in the planning process took many years to evolve. As new concerns and issues arose, changes in planning techniques and processes were introduced. These modifications sought to make the planning process more responsive and sensitive to those areas of concern. Urban areas that had the resources and technical ability were the first to develop new concepts and techniques. These new ideas were diffused by various means throughout the nation, usually with the assistance of the federal government. The rate at which the new concepts were accepted varied from area to area. Consequently, the quality and depth of planning is highly variable at any point in time.

Early highway planning concentrated on developing a network of all-weather highways and with connecting the various portions of the nation. As this work was being accomplished, the problems of serving increasing traffic grew. With

the planning for urban areas came additional problems of land development, dislocation of homes and businesses, environmental degradation, citizen participation, and social concerns such as providing transportation for the disadvantaged. More recently have been the concerns about energy consumption and deterioration of the transportation infrastructure.

Urban transportation planning in the United States has always been conducted by state and local agencies. This is entirely appropriate since highway and transit facilities and services are owned and operated largely by the states and local agencies. The role of the federal government has been to set national policy, provide financial aid, supply technical assistance and training, and conduct research. Over the years, the federal government has attached requirements to its financial assistance. From a planning perspective, the most important has been the requirement that transportation projects in urbanized areas of 50,000 or more in population be based on an urban transportation planning process. This requirement was first incorporated into the Federal Aid Highway Act of 1962.

Other requirements have been incorporated into federal legislation and regulations over the years. Many of these are chronicled in this report. At times these requirements have been very exacting in their detail. At other times, greater flexibility was allowed in responding to the requirements. Currently, there is underway a devolution of federal involvement in and requirements on local planning and decision making processes. Greater emphasis is being placed as well on involving the private sector in providing and financing urban transportation facilities and services.

Over the years, a number of federal agencies have affected urban transportation planning (Table 1.1). The U.S. Bureau of Public Roads was part of the U.S. Department of Commerce when the 1962 Highway Act was passed. It became part of the U.S. Department of Transportation (DOT) upon its creation in 1966 and its name changed to the U.S. Federal Highway Administration. The federal urban mass transportation program began in 1961 under the U.S. Hous-

TABLE 1.1. Founding Dates of Selected Federal Agencies

1916	Bureau of Public Roads
1921	Bureau of the Budget
1947	Housing and Home Finance Agency
1953	Department of Health, Education and Welfare
1965	Department of Housing and Urban Development
1966	Department of Transportation, and Federal Highway Administration
1968	Urban Mass Transportation Administration
1969	Council on Environmental Quality
1970	Office of Management and Budget, and Environmental Protection Agency
1977	Department of Energy
1979	Department of Health and Human Services

ing and Home Finance Administration, which became the U.S. Department of Housing and Urban Development in 1965. The federal urban transit program was transferred to DOT in 1968 as the U.S. Urban Mass Transportation Administration.

Other federal agencies became involved in urban transportation planning as new issues arose. The Bureau of the Budget, later to become the Office of Management and Budget, issued guidance in 1969 to improve coordination among programs funded by the federal government. To address environmental concerns that were increasing in the latter part of the 1960s, the Council on Environmental Quality was created in 1969 and the U.S. Environmental Protection Agency in 1970. The U.S. Department of Health, Education and Welfare became involved in urban transportation in 1973 as part of its function to eliminate discrimination against handicapped persons in federal programs. In 1977, the U.S. Department of Energy was created to bring together federal energy functions.

The involvement of these and other agencies at the federal, state, and local level created an increasing challenge to agencies conducting urban transportation planning to meet all the requirements that resulted. Local planners devoted substantial resources to meeting requirements of higher level governments, which often detracted from their ability to address local needs and objectives. These requirements, however, were also used by local agencies as the justification to carry out activities that they desired but for which they could not obtain support at the local level.

This report reviews the historical development of the urban transportation planning process in the United States from its beginnings in early highway and transit planning to the most recent focus on decentralization of decision making:

Chapter 2 discusses the early beginnings of highway planning.

Chapter 3 covers the formative years of urban transportation planning during which many of the basic concepts were developed.

Chapter 4 focuses on the 1962 Federal Aid Highway Act and the sweeping changes it brought in urban transportation planning in the United States. It also describes early federal involvement in urban public transportation.

Chapter 5 discusses efforts at intergovernmental coordination, a deeper federal role in urban public transportation and the evolution to "continuing" transportation planning.

Chapter 6 describes the environmental revolution of the late 1960s and the increased involvement of citizens in the urban transportation planning process.

Chapter 7 addresses the events that led to integrated planning for urban public transportation and highways. These included major increases in federal transit programs as well as increased flexibility in the use of highway funds.

Chapter 8 focuses on the Arab oil embargo of 1973, which accelerated the transition from long-term system planning to short-term, smaller scale planning. It also discusses the concern for cost-effectiveness in transportation decisions and the emphasis on transportation system management techniques.

Chapter 9 highlights the concern for the revitalization of older urban centers and the growing need for energy conservation. It describes the expanding federal requirements on environmental quality and transportation for special groups.

Chapter 10 describes the efforts to reverse federal intrusion into local decisions and to scale back federal requirements.

Chapter 11 discusses the growing interest in involving the private sector in the provision of transportation services.

Chapter 12 provides concluding remarks.

2

EARLY HIGHWAY PLANNING

Need for Highway Planning

In the early years of highway construction, the automobile had been regarded as a pleasure vehicle rather than an important means of transportation. Consequently, highways consisted of comparatively short sections that were built from the cities into the countryside. During this period, urban roads were considered to be adequate, particularly in comparison to rural roads. Although the concept of a continuous national system of highways was recognized in the Federal Aid Highway Act of 1925, there were significant gaps in many important intercity routes. In addition, highway pavements were largely inadequate to carry major traffic loads.

The need for a systematic approach to the planning of highways was recognized in the early 1930s as the rapid growth in automobile ownership and highway travel placed increasing demands on an inadequate highway system. It became clear that these growing problems necessitated the collection and analysis of information on highways and their use on a more comprehensive scale than had ever before been attempted (Holmes and Lynch, 1957).

Federal Aid Highway Act of 1934

Beginning with the Federal Aid Highway Act of 1934, the Congress authorized that 1.5 percent of the amount apportioned to any state annually for construction could be used for surveys, plans, engineering, and economic analyses for future highway construction projects. The act created the cooperative arrangement between the U.S. Bureau of Public Roads (now the U.S. Federal Highway Administration) and the state highway departments, known as the statewide highway planning surveys. By 1940, all states were participating in this program (Holmes and Lynch, 1957).

As an initial activity, these highway planning surveys included a complete inventory and mapping of the highway system and its physical characteristics. Traffic surveys were undertaken to determine the volume of traffic by vehicle type, weight, and dimensions. Financial studies were made to determine the relationship of highway finances to other financial operations within each state, to assess the ability of the states to finance the construction and operation of the highway system, and to indicate how to allocate highway taxes among the users. Many of the same types of activities are still being performed on a continuing basis by highway agencies (Holmes, 1962).

Toll Road Study

By the mid 1930s, there was considerable sentiment for a few long-distance, controlled-access highways connecting major cities. Advocates of such a highway system assumed that the public would be willing to finance much of its cost by tolls. The U.S. Bureau of Public Roads was requested by President Roosevelt in 1937 to study the idea, and two years later it published the report, *Toll Roads and Free Roads* (U.S. Congress, 1939).

The study recommended the construction of a highway system to be comprised of direct, interregional highways with all necessary connections through and around cities. It concluded that this nationwide highway system could not be financed solely through tolls, even though certain sections could. It also recommended the creation of a Federal Land Authority empowered to acquire, hold, sell, and lease land. The report emphasized the problem of transportation within major cities and used the city of Baltimore as an example (Holmes, 1973).

Interregional Highway Report

In April 1941 President Roosevelt appointed the National Interregional Highway Committee to investigate the need for a limited system of national highways to improve the facilities available for interregional transportation. The staff work was done by the U.S. Public Roads Administration, which was the name of the Bureau of Public Roads at that time, and in 1944 the findings were published in the report, *Interregional Highways* (U.S. Congress, 1944). A system of highways, designated as the "National System of Interstate and Defense Highways," was recommended and authorized in the Federal Aid Highway Act of 1944. However, it was not until the Federal Aid Highway Act of 1956 that any significant work on the system began.

This study was unique in the annals of transportation planning and the implementation of its findings has had profound effects on American lifestyles and industry. The study brought planners, engineers, and economists together with the highway officials responsible for implementing highway programs. The final route choices were influenced as much by strategic necessity and such fac-

tors as population density, concentrations of manufacturing activity, and agricultural production as by existing and future traffic (Holmes, 1973).

The importance of the system within cities was recognized, but it was not intended that these highways serve urban commuter travel demands in the major cities. As stated in the report, "...it is important, both locally and nationally, to recognize the recommended system...as that system and those routes which best and most directly join region to region and major city to major city" (U.S. Congress, 1944).

The report recognized the need to coordinate with other modes of transportation and for cooperation at all levels of government. It reiterated the need for a Federal Land Authority with the power of excess condemnation and similar authorities at the state level.