THE FRESNO MUNICIPAL BUS LINE:
A STUDY OF SOLUTIONS TO PROBLEMS OF MASS TRANSPORTATION
IN FRESNO, CALIFORNIA

by
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CHAPTER I

THE MUNICIPAL TRANSPORTATION PROBLEM

The Trend Toward Municipal Ownership of Bus Lines

Beginning in 1946, privately owned bus lines throughout the United States were faced with a reduction in profit brought about by a decrease in patronage and an increase in the cost of labor and material. Many bus lines attempted to compensate for their loss of profit by keeping investment and service at a minimum. When the bus lines could no longer make any profit, they sold their business to the municipalities they served or they ceased operations altogether. The sale of the bus lines began a nationwide trend toward municipal ownership of bus lines during the 1950's and the early 1960's.¹

Most municipalities borrowed money, usually at high interest rates, in order to purchase these privately owned bus lines. Once having assumed ownership, the municipalities began replacing outdated equipment with new equipment or with equipment leased at high interest rates; they also increased service with more and longer bus routes.² The

¹Interview with Gerald L. Nickelson, Manager, Fresno Municipal Bus Line, February 17, 1966.
²Ibid.
high interest rates, new equipment purchases, greater service, and decreasing bus patronage constituted financial difficulties for the newly acquired bus lines. Under these conditions, no municipal bus line made a profit immediately after beginning operations; and many of them have never made a profit.

The Fresno Municipal Bus Line

Fresno City Lines, Inc., was the privately owned bus line of Fresno, California, from 1939 to 1961. As early as 1950, the management of City Lines predicted that its bus line, like other privately owned bus lines in the United States, would eventually have to be sold or discontinued because of dwindling profit. The prediction proved true. Bus patronage decreased from 25,000 passengers per day in 1950 to 10,000 per day in 1960.\(^1\) In 1960 alone, patronage decreased 14% from the previous year; the financial loss during 1960 was $27,560.\(^2\)

The City of Fresno bought the business of Fresno City Lines, Inc., on November 1, 1961.\(^3\) From the year of purchase, the bus line has operated at a greater loss every year.\(^4\) Thus, Fresno has learned to accept what has been the

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\(^1\)Ibid.

\(^2\)Fresno Bee, June 13, 1961, 1-C; June 29, 1961, 1-D.

\(^3\)Ibid., November 1, 1961, 1-D.

\(^4\)Interview with Nickelson, February 17, 1966.
experience of all low density cities and many high density cities—mass transit systems could not operate at a profit.¹

The problems of the mass transit systems in Fresno and other cities induced many cities to initiate transit improvement programs. These programs, many of which were partially financed through federal grants-in-aid, were scrutinized to learn what motivated people to ride mass transit systems. From the facts brought out by such investigation, the type of transit system best suited for individual cities could be postulated.

The specific purpose of this project is to determine solutions to the problems of the Fresno Municipal Bus Line. This purpose shall be accomplished by a two-fold analysis, as follows: (1) an examination of the reasons for the decline in bus patronage in cities throughout the nation and, in particular, in Fresno; and (2) a discussion of the results of the transit improvement programs and of the role of the different levels of government in carrying out the programs.

CHAPTER II

NATIONWIDE DECLINE IN MUNICIPAL MASS TRANSIT PATRONAGE

From A Rural Society to An Urban Society

When the United States was established in 1789, only 5% of the population lived in urban areas. Until 1840 migration from rural to urban areas was slow; however, migration accelerated during the next seventy years, and by 1910 urban residents accounted for 46% of the population. During the twentieth century, migration has continued at such a rapid pace that by 1962, 88% of the population resided in urban areas. \(^1\)

Upon moving to urban areas, people became dependent on urban services. These services, some of which rural residents themselves provided, included paved streets, sidewalks, water, electricity, gas, sewage, garbage collection, mass transportation, and police and fire protection. One of the services, urban mass transportation, appeared as early as 1850 with horse-drawn busses and streetcars. Several years later suburban railroads were introduced in the larger cities, and by 1890 cable and electric streetcars

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were in operation. Subways, motor busses, commuter trains, and monorails were introduced in the twentieth century. Mass transit systems enabled the growth of cities, but they did so in such a way that the growth followed the routes of the transit systems.¹

The Growing Use of the Automobile

By 1900 the automobile offered the public a means of transportation in addition to the municipal mass transit systems. At first only the upper income class could afford the automobile; however, improved production techniques soon lowered its price and made possible its purchase by lower income classes. As a result, more people than ever before were exposed to the convenience of transportation at their doorsteps; they were freed from the time and route restrictions of train and bus schedules.

Because of the popularity of the automobile, its registration skyrocketed from 8,000 in 1900 to 22,973,000 in 1930.² As early as 1922, San Francisco recognized that this growth in automobile ownership was a factor in the increase of traffic congestion and in the reduction of municipal mass transit patronage.³ The reduction of patronage

¹Ibid.  
²Ibid., 294-295.  
continued to decline during the rest of the 1920's and all of the 1930's.

World War II temporarily halted the decline in mass transit patronage. The suspension of automobile production and the rationing of gasoline and tires compelled most automobile owners to patronize mass transit systems. Consequently, mass transit companies recorded the greatest profits they had ever made; during their best year, 1945, they carried 18,980,000,000 passengers. After World War II, patronage began to dwindle again with the resumption of automobile production and the elimination of gasoline and tire rationing. Patronage decreased from 13,850,000,000 passengers in 1950 to 7,200,000,000 in 1960 (a 48% decrease).¹

During the post-war period, the number of automobile trips surpassed mass transit trips. For instance, in 1946 mass transit made 24,000,000,000 urban trips, while the automobile made 25,000,000,000 similar trips. In 1960 mass transit made only 11,000,000,000 trips compared to the 50,000,000,000 automobile trips.² The reduction in mass


transit trips brought about by the decline in patronage effected an increase in transit fares.

The Increase in Transit Fares

Most mass transit companies compensated for the diminishing patronage by raising fares and reducing service. The transit fare increase of 96% from 1950 to 1963 made it one of the most consistently inflationary items of the consumer price index; simultaneously, prices for all other service industries expanded by 46% (less than half the transit fare rate).\(^1\) The price rise of fixed and operating costs for the automobile, mass transit's competitor, was less than a third of the transit fare rate for the same period. Operating costs such as gasoline and oil rose 28%, and fixed costs such as insurance and registration rose 30%.\(^2\)

Transit fares not only multiplied faster than the prices of other service industries and the fixed and operating costs of the automobile, but they also hastened the decline in mass transit patronage. The transit industry calculated that passenger volume decreased at one-third


\(^2\) Ibid., 282.
the rate of any fare increase. Thus, the fare increase of 96% from 1950 to 1963 accounted for a 32% passenger volume reduction.

The mass transit industry also discovered that some types of trips were more sensitive to fare increases than other types. The industry disclosed that non-rush hour travel—such as shopping, social, recreation, and personal business trips—showed a marked decrease in proportion to fare increases. On the other hand, the industry stated that the influence of fare increases on rush-hour travel—such as work trips—was minimal. A 1956 Chicago survey revealed that rush-hour commuters chose their particular means of transportation more because of convenience and speed rather than because of fare rate.

Higher fare rates increased the nationwide annual revenue of the municipal mass transit industry from $1,380,000,000 in 1945 to $1,400,000,000 in 1962. This slight revenue expansion did not compensate for the rising cost of wages, fringe benefits, and equipment. Hence, the industry's profit declined from 3.5% in 1945 to 0.5% in


3Faux, Monthly Labor Review, LXXXVII, 282.
Because of the shrinking profit, 270 privately owned mass transit companies sold their businesses to the cities they served between 1950 and 1960; furthermore, another 199 companies ceased operations altogether because the cities served lacked the funds for purchasing the transit companies.  

**Decentralization of Cities**

After World War II, cities in the United States decentralized at a rapid rate for several reasons. First of all, the automobile enabled people to live farther away from the downtown area. This means of transportation was faster and more convenient than mass transit, and it freed people from the necessity of living near a mass transit route.

A second reason for the decentralization of cities was a rise in income; this allowed people more living space—a single family residence and private yard. The third and fourth reasons were tax concessions and the low interest rates of the Federal Housing Administration; these encouraged home ownership. Inexpensive rural land away from the downtown area, the fifth reason, was the perfect location

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for low density, single-family residences. These five reasons for the decentralization of cities—the automobile, the rise in income, tax concessions, low interest rates, and inexpensive land—contributed to the development of low density, residential neighborhoods outside the downtown area.

This development of residential neighborhoods accounted for a nationwide increase in suburban population of 62% from 1950 to 1960. During the same period, the population in the downtown area increased only 2%. The suburban population explosion made necessary the construction of 10,000,000 single-family residences from 1947 to 1962. Every type of facility that served the suburban population, from service stations to shopping centers, accompanied the residential construction. From 1947 to 1962, 5,000 shopping centers, some covering as much area as downtown business districts, were built in the suburbs along with thousands of factories, office buildings, and recreational facilities.

Suburban businesses drew customers away from the downtown area. People were discouraged from going to the downtown area because of the traffic congestion caused by

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2Hoyt, Traffic Quarterly, XVII, 296.
increased automobile usage and inadequate parking facilities. On the other hand, they were attracted to the suburban businesses by the large, free parking areas.¹ Jobs created by suburban businesses made it possible for families to live, work, and shop in suburban areas without going downtown. This made the nationwide number of commuter trips to the downtown area only half the non-downtown area trips in 1964.²

**Summary of Chapter**

From its beginning in 1900, the automobile was the most important reason for the nationwide decline in municipal mass transit patronage. Its speed and convenience encouraged people to use the automobile and to stop riding the mass transit systems. The resulting reduction in mass transit patronage triggered a rise in fare rates which, in turn, brought about a further loss of patronage. The automobile also inspired people to buy homes away from the downtown area and mass transit routes; the consequence, the decentralization of cities, likewise produces a reduction in mass transit patronage. All in all, municipal mass transit has declined for the three following reasons:

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²Kain et al., *The Urban Transportation Problem*, pp. 361-362.
(1) the growing use of the automobile, (2) the increase in transit fares, and (3) decentralization of cities.
CHAPTER III

THE FRESNO MUNICIPAL BUS LINE

From Private to Municipal Ownership

The management of Fresno's privately owned bus line, Fresno City Lines, Inc., foresaw in 1950 that the effect of the automobile on bus patronage would ultimately force the bus line out of business. The loss of revenue from the reduced patronage motivated the bus line to raise the fare rate; as a result, bus patronage decreased even further. Moreover, there was another factor in the loss of bus patronage—decentralization of Fresno. Decentralization created shopping centers with free parking areas that encouraged greater automobile usage and less bus patronage.¹ These reasons for the decline in the patronage of Fresno City Lines—greater automobile usage, increased fares, and decentralization of the city—were the same reasons for the nationwide decline in the patronage of urban mass transit systems.

Although the patronage and revenue of City Lines decreased throughout the 1950's, the bus line still made a profit by maintaining investment and service at a minimum.

¹Interview with Nickelson, February 17, 1966.
In 1960, however, bus patronage declined 14%—the largest decline among the California urban transit systems. Also, in 1960, the bus line lost $27,560 because the cost of labor and material was greater than the gross revenue. During the first four months of 1961, the bus line lost an additional $12,995. Therefore, on June 29, 1961, Fresno City Lines, Inc., filed an application with the California Public Utilities Commission to discontinue its business.¹

When City Lines announced its withdrawal from the bus business, the Fresno City Council agreed to purchase it. The transfer of ownership was completed on November 1, 1961; on the same date, the Fresno Municipal Lines started its operation with ten new air-conditioned busses and thirty-two used busses.² The City of Fresno had joined the nationwide trend toward municipal ownership of mass transit systems.

Methods to Increase Bus Patronage and Revenue

From the beginning of the Fresno Municipal Bus Line, Bus Manager Thomas Burke introduced several methods in an attempt to increase patronage and revenue. On the first day of operation, he offered free bus rides; and on the following two days, merchant groups validated rides with

¹Fresno Bee, June 29, 1961, 1-D; June 13, 1961, 1-C.  
²Ibid., June 29, 1961, 1-D.
no purchases necessary.\textsuperscript{1} Burke then lowered the adult fare from 25¢ to 20¢ and offered a 10¢ fare to anyone who was under eighteen years of age. He also initiated a downtown zone where a passenger could ride a bus for 10¢ anywhere within the zone.\textsuperscript{2} The reasoning behind the reduction of fares was that a lower fare would produce a greater patronage; however, subsequent studies proved that patronage was not affected by the lower fares. Consequently, adult fares were again raised to 25¢; fares for those under eighteen years of age were raised to 15¢; and the downtown zone fare was eliminated.\textsuperscript{3}

Another method to increase patronage was to change bus routes. This method was employed seven times between 1961 and 1965. Each change attempted to place more routes in areas with a greater patronage per route mile. The first change made some of the routes follow a crosstown direction; nevertheless, experience showed that routes oriented toward the downtown area produced greater patronage. The last change in 1965 directed all routes downtown.\textsuperscript{4}

In addition to the route changes, special routes

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\textsuperscript{1}Ibid., November 1, 1961, 1-D, 8-D.
\textsuperscript{2}Ibid., December 31, 1961, 5-B.
\textsuperscript{3}Interview with Nickelson, May 26, 1966.
\textsuperscript{4}Ibid.
}
were created to attract particular groups of passengers. For instance, a bus made one round trip from downtown Fresno to Lemoore Naval Air Station every Saturday for military personnel and their dependents. Also, during the months of June, July, and August, Saturday and Sunday bus service was provided for Roeding Park and the Belmont Avenue cemeteries. Beginning in April, 1962, the bus line provided transportation to and from Coalinga one day a week. In June, 1962, bus service was granted to the West Fresno business district—an area without mass transit since the street cars were abandoned in 1937. Except for the West Fresno service, all of these routes were terminated because of minimal public demand. The West Fresno service, on the other hand, has remained one of the better patronized routes since it was begun.

One method of operation—the charter bus business—was successful; it accounted for 20% of the total revenue of the bus line in 1965. Its success was a result of the nationwide trend of clubs, organizations, and groups to charter busses when travelling out of town to conventions,

1Ibid.
2Fresno Bee, May 22, 1963, 15-B.
3Ibid., July 13, 1962, 5-C.
4Ibid., June 14, 1962, 1-B.
5Interview with Nickelson, May 26, 1966.
sporting events, and recreational areas. With seven charter busses, the bus line increased charter revenue 16% every year since 1961; furthermore, from December, 1965, to May, 1966, revenue rose 53%. Federal grants-in-aid for compensatory education issued to poorer schools for field trips were responsible for part of the increase in revenue between December and May.¹

The bus drivers helped in Burke's efforts to increase patronage; they contributed their time in a door-to-door campaign to sell bus service. During the thirty-day campaign, each of the fifty-two drivers spent four hours walking from house to house along their routes handing out bus schedules, promoting bus patronage, and answering questions concerning bus service.² The campaign promoted better public relations for the bus line, but it did not affect bus patronage.³

The methods that Burke introduced to increase bus patronage and revenue—lower fares, special bus service, charter busses, and the promotion campaign—were unsuccessful except for the charter busses and one special bus service, the West Fresno service. The financial deficits continued to grow every year. The fact that the management

¹Ibid.
²Fresno Bee, January 19, 1962, 1-C.
³Interview with Nickelson, May 26, 1966.
was willing to adopt new methods to increase patronage and revenue suggested that these deficits were caused by reasons beyond management's control.

**Reasons for Financial Losses**

After the bus line was purchased by the City, it experienced financial losses for reasons other than the competition of the automobile and the decentralization of Fresno. The first reason was that the City of Fresno lacked the necessary funds for purchasing the bus line; therefore, it borrowed money at a 7% interest rate with a depreciation period of seven years for equipment. The normal depreciation period of fifteen years and interest rate of 3.5% was not chosen because the City would rather pay a higher rate of interest over a shorter period of time than a lower rate of interest over a longer period of time. Thus, the expenses of the City for purchasing the bus line and equipment were doubled.¹ These expenses, $10,675 per month for equipment and buildings and $2,187 per month for accounting services provided by City Hall, have been charged against the operation of the bus line.²

The second reason for the financial distresses of the bus line was the re-scheduling of bus routes seven

¹Interview with Walter P. Berg, Controller and Director of Finance, City of Fresno, California, March 16, 1966.

²Interview with Nickelson, May 26, 1966.
times in four years. This frequency reduced patronage because the routes were changed faster than people could become accustomed to them. Since there have been no route changes since February, 1965, people have become familiar with bus schedules. This stability has slowed the patronage decline to 0.003% for April, 1966.

The closing of Fulton Street to traffic was a third reason for financial difficulty; it decreased bus patronage and increased the operating expenses of the bus line. Patronage declined because bus stops were placed at inconvenient locations. People boarded busses at street corners a few steps away from businesses on Fulton prior to its closing. Only two bus stops, one on Fresno Street and the other on Tulare Street, remained on Fulton when it was closed. The other business district bus stops were one block and three lanes of traffic from Fulton on Van Ness and Broadway. The walking distance and the traffic made older people reluctant to ride a bus downtown. Operating expenses increased $9,625 per year because four additional busses were required to serve the downtown area. Another three busses will be needed when Fresno and Tulare Streets are closed.

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1Letter from Tom Burke, former Manager, Fresno Municipal Bus Line, February 8, 1966.
2Interview with Nickelson, May 26, 1966.
3Letter from Burke, February 8, 1966.
4Interview with Nickelson, February 17, 1966.
The fourth reason was the construction of downtown parking lots since 1962. The parking lots encouraged more people to use automobile transportation rather than bus service for two reasons. First, a greater number of parking spaces were available; and second, in many instances, the parking spaces were closer to the businesses on the Fulton Mall than the bus stops.\textsuperscript{1}

The fifth reason for financial losses was the increased cost of labor and material. Although the revenue of the bus line increased from $51,220 in September, 1961, to $52,439 in September, 1965, the net loss also increased from $132 to $21,809 in the same two months. This loss was the result of a rise of 28\% in wages, 66\% in fringe benefits, and 168\% in depreciation on equipment during the four year period. The exorbitant increase in fringe benefits was attributed to greater benefits for bus line employees under municipal ownership than under private ownership. The large increase in the depreciation on equipment was created by the short seven year loan period.\textsuperscript{2}

The sixth reason for financial losses was the decision of the City Council to remove advertisements from bus benches. The bus line not only lost $7,000 per year in advertisement revenue, but it also lost the bench

\textsuperscript{1}Ibid
\textsuperscript{2}Ibid.
maintenance service provided by the advertisers. The bus line then had to maintain the benches at a cost of $3,000 per year.¹

The six reasons discussed for the financial deficits of the Fresno Municipal Bus Line after its purchase in 1961 were the following: (1) the City's lack of funds to purchase the bus line, (2) the frequent re-scheduling of bus routes, (3) the closing of Fulton Street to traffic, (4) the new parking lots, (5) the increased cost of labor and material, and (6) the elimination of advertisements from bus benches. When the bus line was purchased, only one of these six reasons was evident—the high depreciation rate on equipment (under the heading of "the increased cost of labor and material"). The Fresno Municipal Bus Line anticipated a loss of $60,000 for its first fiscal year of operation because of the high depreciation rate and the past experience of the bus line under private ownership.² The anticipated loss prompted the City Council to find a means for financing the deficit other than city property tax.

The Proposed Metropolitan Area Transit District

The City Council proposed that a metropolitan area

¹Interview with Berg, March 16, 1966.
²Fresno Bee, August 19, 1962, 4-B.
transit district be established for financing the Fresno Municipal Bus Line. The district would include 36.18 square miles inside the city limits and 37.25 square miles outside the city limits. Gerald McMahon, Deputy Chief Administrator for the City of Fresno, stated the city property taxes would rise $.0325 per $100 assessed valuation without the transit district; however, if the district was established, city taxes would rise $.02.2

Since the bus line served areas outside the city limits, the Council felt justified for including within the transit district the 37.25 square mile area. According to the Council, the district would shift the financial burden of the bus line from the City to the area included in the district. Although the bus line served some areas outside the city limits, it did not serve all areas that would be in the district. It was this last point that led to the defeat of the metropolitan area transit district.

After the City Council had endorsed the transit district, the proposal went to the Fresno County Board of Supervisors for approval. The Board rejected the plan unanimously because the district would include areas not served by the bus line. Taking an extreme position, Supervisor Floyd Olsen asserted that the bus line should not operate if the fares could not support it. Groups against

\[1\text{Ibid.} \quad 2\text{Ibid.}\]
the district were business and property owner associations inside the proposed boundaries but outside the city limits. Some of these groups were served by the bus line and some were not. The only people in favor of the district were a real estate salesman and a land developer.¹

Once the transit district had been rejected, bus routes were revised so that 92% of them were in the city limits.² Under these conditions, a transit district would have no purpose, since only 8% of the area served did not financially support the bus line.

Summary of Chapter

Fresno, California, played a part in the nationwide trend toward the municipal ownership of mass transit systems. The City of Fresno purchased Fresno City Lines, Inc., a privately owned bus line that could no longer make a profit, on November 1, 1961. From the time of its purchase, the Fresno Municipal Bus Line suffered greater financial losses than did the private company. Several methods—lower fare rates, special bus service, charter bus business, and promotion campaign by bus drivers—were innovated to decrease financial losses through an increase in bus patronage. Nevertheless, most of these methods were unsuccessful, and further financial losses resulted.

¹Ibid., August 22, 1962, 1-D, 3-D.
²Interview with Nickelson, May 26, 1966.
In addition to the competition of the automobile and the decentralization of Fresno, there were six reasons for the financial difficulty experienced by the Fresno Municipal Bus Line. They were as follows: (1) City's lack of funds to purchase the private bus line, (2) frequent re-scheduling of bus routes, (3) closing of Fulton Street to traffic, (4) new parking lots, (5) increased cost of labor and material, and (6) removal of advertisements from bus benches.

A metropolitan area transit district was proposed by the City Council to finance the Fresno Municipal Bus Line. The plan was defeated by the County Board of Supervisors because some areas in the district would not be served by the bus line.
CHAPTER IV

MUNICIPAL TRANSIT IMPROVEMENT PROGRAMS

Study of Transit Improvement Programs

This chapter will be a study of information uncovered by seven municipal transit improvement programs. The information will be discussed in relation to the physical characteristics and the government participation in each municipality. From this study, a greater knowledge will be gained about the problems of mass transit and the solutions to these problems in different cities throughout the United States.

Transit Improvement Program for Washington, D.C.

Washington, D.C., had two transportation problems. First, there was a large volume of pedestrian traffic in the central business district (CBD); and second, pedestrians had to walk excessive distances because of the CBD's seventy square block area and wide streets. A transportation system was needed within the CBD to reduce the pedestrian volume and walking distances.

The pedestrian problem inspired Washington, D.C., businessmen and civic leaders to form the National Capital Downtown Committee, Inc. (Downtown Progress), a private non-profit group, in 1960. The group hired Sidney Hollander Associates, a consultant firm, to collect data to determine what the CBD's pedestrian traffic volume would be in 1980. After the volume was determined, the Convair Division of General Dynamics Corporation studied various transportation systems that would accommodate the estimated volume of pedestrian traffic. In November, 1961, Convair recommended two routes and three vehicle designs suitable for the pedestrian traffic.\(^1\)

Convair having made its recommendations, Downtown Progress agreed that D.C. Transit System Inc., the private company operating Washington's bus line, should administer any future CBD transportation system. After locating vehicles similar to Convair's suggested designs, Downtown Progress and D.C. Transit System applied for a demonstration grant with the federal government's Housing and Home Finance Agency. The local government agency sponsoring the grant was the District of Columbia Government under the supervision of the Washington Metropolitan Area Transit Commission.\(^2\)

On January 30, 1963, HHFA Administrator Robert C.

\(^1\)Ibid., p. 5. \(^2\)Ibid.
Weaver announced the grant's approval and title—the Minibus Mass Transportation Demonstration Project. The Project would test the ability of Minibus to attract enough passengers to facilitate pedestrian movement, reduce traffic congestion, and increase business activity in the CBD.¹

Only two days after Weaver's announcement, one Minibus began operating Monday through Saturday from 10:15 A.M. to 3:45 P.M. at twenty minute intervals with a 5¢ fare. Throughout the six week test period, the Minibus competed with a shoppers' bus and a system of larger busses operating at five minute intervals with a 10¢ fare. When the test period ended on March 16, 1963, the Minibus had carried 13,942 passengers and had collected $696.96 in fares. The fares collected paid 40% of the Minibus' operating costs. Depreciation costs were not included in the operating costs since the Minibus was loaned by the manufacturer. The test period did not determine the success or failure of Minibus because the new vehicle competed with other busses and attracted curious passengers. During the test period, Sidney Hollander Associates studied information gathered by interviewers of Minibus passengers. The study found that the passengers enjoyed Minibus' curb

¹Ibid., pp. 1, 5.
²Ibid., p. 11.
level entrance, smooth ride, big windows, low fare, and inside and outside appearance. One recurring remark was that Minibus' pastel colors and stripes were preferable to the impersonal appearance of other public transportation systems. The study having concluded that the great majority of passengers favored the Minibus and its service, plans were made for a longer test period and a more comprehensive system. The D.C. Transit System ordered fourteen Minibusses.¹

The second test period began on November 4, 1963. Minibus service was provided Monday through Saturday from 10:00 A.M. to 6:00 P.M. at two and one-half minute intervals with a 5¢ fare. The low fare was retained to attract a large number of passengers; however, free service was not used because it would cause flippant usage. Regular bus service was discontinued and its route was followed by the Minibus service. This route was chosen because it connected all CBD department stores and high density pedestrian areas. The test period ended on November 3, 1964. Minibus had carried 1,952,274 passengers—double the estimated figure. The $92,611.48 collected in fares paid 52.3% of the operating costs (excluding depreciation costs).²

Sidney Hollander Associates conducted a study of

¹Ibid., pp. 11-15, 27.
²Ibid., pp. 27-33.
information obtained from interviews with Minibus passengers during the second test period. The study discovered that shopping was involved in 80% of all Minibus trips and 50% of the trips were between stops dominated by department stores. Minibus' time saving service and low fares were constantly re-emphasized.¹ This study determined, as the first study had done, that a substantial majority of the public accepted the Minibus system.

Traffic volume studies showed that Minibus service had no effect on patronage for regular bus lines connecting the CBD to suburban areas. The studies also disclosed that there was no effect on automobile volume on the Minibus route; nevertheless, taxicab and truck volume was affected with a decrease of 12% and 8% respectively. Furthermore, pedestrian volume decreased 12% on the Minibus route, but it increased 23% on the next street parallel to the route.² These studies revealed satisfactory results in the reduction of pedestrian and vehicle volume along the Minibus route.

Studies of traffic volume and passenger interviews declared that the Minibus Project was successful in achieving its objectives of facilitating pedestrian movement, reducing traffic congestion, and increasing business activity in the CBD. By the end of the second test period, revised route schedules allowed fare revenue to meet the

¹Ibid., pp. 35, 41. ²Ibid., pp. 45, 53.
operating costs (excluding depreciation costs).\footnote{Ibid., p. 33.} The Minibus service not only became permanent; but on February 15, 1965, its routes were extended to provide direct service between twenty-seven United States Government buildings.\footnote{Ibid., p. 4.}

The Minibus Mass Transportation Demonstration Project was financed with $160,000 contributed by the HHFA and $69,500 contributed by the D.C. Transit System. Downtown Progress, D.C. Government, and the Washington Metropolitan Area Transit Commission donated an additional $10,800.\footnote{Ibid., p. 8.} The financing and administration of the Project demonstrated the ability of private business and government agencies to work together.

Transit Improvement Program for Baltimore, Maryland

Traffic congestion in the CBD was Baltimore's transportation problem. Studies in 1962 disclosed that out of the 120,000 people commuting daily to the CBD, 45,000 patronized public transit. Also, the CBD, which covered 0.06% of the metropolitan area, attracted 9.5% of the metropolitan area automobile and public transit trips. These trips, which were concentrated at morning and evening
peak periods, created traffic congestion in Baltimore.¹ A reduction in the number of trips could be accomplished only by converting more automobile operators into public transit passengers.

A grant from the Urban Renewal Administration of the HHFA enabled the Metropolitan Transit Authority of Maryland to hire consultants Parsons, Brinckerhoff, Quade, and Douglas to study improvements for the privately owned Baltimore Transit Company. The purpose of the improvements would be to increase bus patronage and thereby reduce traffic congestion.² The study area for the improvements included the City of Baltimore and three adjacent counties.³

One of the improvements recommended by the consultants was a limited express bus service. Under this service, busses would make stops between the end of a route and an express point. From the express point, busses would travel non-stop until they reached the CBD. On the return trip, busses would make stops in the CBD and then travel non-stop to the express point. Busses would complete the round trip by making stops from the express point to the end of the route. Portions of the route between the express point and CBD would have separate local bus

¹Baltimore, Maryland, Metropolitan Transit Authority of Maryland, Forecast: A Special Report on Baltimore's Bus Transit Improvement Program, 1963, p. 3.
²Ibid., pp. 2-3.
³Ibid., p. 12.
service. The limited express service would increase bus speeds by an estimated 7.4% and eliminate 6,700 travel hours for the 45,000 daily passengers.¹

Another improvement suggested by the consultants was the consolidation of suburban feeder routes with CBD routes. The improvement would provide direct CBD service from suburban areas, save travel time, and eliminate 6,200 daily transfers. Transfers would be reduced further by combining crosstown routes.²

Other improvements recommended for the Baltimore Transit Company included an increase in the use of one-way streets for bus routes, the addition of twenty-five city blocks of transit lanes to the existing seventy-nine, and the restriction of automobile turns at certain locations. Also proposed was the purchase of 100 new air-conditioned busses.³ The improvements that the consultants suggested would not increase the operating cost of the transit company. Initiation of the improvements would require $400,000, government financing, and a public relations program.⁴ The improvement study, which was financed by state and federal governments, was an example of government aid granted to a private transit company for the purpose of increasing patronage.

¹Ibid., p. 3. ²Ibid., p. 4. ³Ibid. ⁴Ibid., p. 2.
Transit Improvement Program for Memphis, Tennessee

The decrease in bus patronage and the increase in operating cost experienced by the Memphis Transit Company, a privately owned bus line, constituted the transportation problem in Memphis. Lower profits resulting from this problem prompted the Transit Company to apply for higher fares to the Memphis City Commission in 1953. During the hearing for higher fares, the Transit Company maintained that a rise in fares was necessary because of increasing costs. The Commission, on the other hand, insisted that the inferior service of the Transit Company did not justify a fare increase. This hearing, which ended with an increase in fares, and subsequent hearings that involved arguments between the Commission and Transit Company lowered public confidence in bus service. Consequently, bus patronage declined further.¹

In 1956 the City of Memphis and the Transit Company shared the cost for a study conducted by the W. W. Dibble Company to modernize bus service. On May 31, 1956, the Dibble Company advised the Transit Company to eliminate duplicated bus routes, provide additional crosstown service, and introduce express-local bus service. After the suggestions had been made, the Commission established the

Transit Committee to initiate the proposed route changes.¹

The Transit Committee put into effect the express-local system, which was similar to Baltimore's proposal for limited express bus service, on November 18, 1956. Within a few weeks, letters to City officials and to the Transit Company revealed passenger dissatisfaction with transferring from local to express busses. Passenger feelings were expressed further by a 14% decline during the express system's first month of service; patronage declined 16% and 23% for the second and third months respectively. The patronage decline induced the City Commission to terminate the system on March 5, 1957.²

Only three days after the express-local system was abandoned, the Transit Company requested a fare increase to compensate for the $100,000 lost during the test period. The Transit Company withdrew its request four months later when the Commission reduced the gross receipts tax on fare revenue from 6% to 3%. Following the tax reduction, relations between the Commission and Transit Company improved.³

On August 9, 1960, the Transit Company, which was faced with a need for new busses and another patronage

¹ Ibid., p. 6. ² Ibid., pp. 7-8.
³ Ibid., pp. 8-9.
decline, notified the Commission to either increase fares or purchase the bus line. The Commission purchased the bus line with the $3,500,000 received from the sale of general obligation bonds. Operation of the bus line was assumed by the Memphis Transit Authority (MTA) on January 1, 1961--one month after formation of the Authority by the Commission.¹

During the first month of operation, the MTA expanded bus service in several ways. First, bus service was increased by 3% for early morning workers and people living in new suburban areas. Although public reaction to the greater service was favorable, the increase in passengers was minimal; service for early morning workers was eliminated. Second, express bus service was made available and proved successful; busses saved travelling time by using expressways (freeways) from suburban areas to the CBD. Third, a park-and-ride bus service was provided from a city-owned parking lot in a residential area to the CBD; the service was discontinued after six months because of low patronage. Fourth, a shoppers special bus service operated in the CBD for a 5¢ fare and then for free; this service was stopped because of low patronage but was renewed eighteen months later with a 10¢ fare.²

In the summer of 1961, the MTA bought forty-one

¹Ibid., pp. 9-15. ²Ibid., pp. 15, 18-19.
air-conditioned busses. When patronage rose 4% after the busses began operation, the MTA accelerated its purchase of additional air-conditioned busses. By August, 1964, the MTA had 130 new air-conditioned busses and eighty-five older air-conditioned busses.1

The MTA has always emphasized public relations. In order to achieve a rapport with the public, the Authority has employed various methods. One method was for MTA employees to handle complaints personally. A second method was to invite school children, businessmen, and organizations for guided tours of the MTA's property. The third method was to open the MTA's weekly board meeting to the public.2

From its beginning in 1961 until 1964, the MTA was financially self-sufficient. The MTA paid all operating cost (including depreciation on equipment) and all payments of interest and principal on the general obligation bonds. In 1964, however, financial stability appeared uncertain when the MTA's operating cost per mile rose to $.55—an amount as high as the operating cost of the Transit Company when it was forced to sell. Furthermore, passengers declined from 31,284,688 in 1961 to 26,206,288 in 1964.3 The MTA's financial position improved again in 1965 with

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1Ibid., pp. 16, 18.  
2Ibid., p. 20.  
3Ibid., p. 44.
a grant from the HHFA to purchase fifty new air-conditioned busses.¹

Transit Improvement Program for Massachusetts

In 1959 the Governor of Massachusetts approved a bill passed by the state legislature to establish the Mass Transportation Commission (MTC). The MTC, which became a staff agency to the Governor and legislature, was granted the power to coordinate comprehensive planning for public and private transportation. Through the planning power, the MTC was responsible for relating mass transportation, land use, and urban renewal to the transportation requirements and public interest in Massachusetts.²

Beginning in December, 1962, the MTC initiated a mass transportation demonstration program to plan the regional development of commuter railroads, privately owned bus companies, and Boston's Metropolitan Transit Authority (MTA). The $5,400,000 program was financed with a $3,600,000 grant from the Office of Transportation in the HHFA and $1,800,000 from the Massachusetts legislature.³ Experiments were conducted to determine the

¹Ibid., pp. 19-20, 23.


³Ibid.
best type of transportation for a particular metropolitan area.

The first experiment reduced bus fares from 25¢ to 10¢ within a one and one-half mile radius of a CBD during the off-peak patronage period (10:00 A.M. to 3:00 P.M.). The experiment, which lasted thirteen weeks, was located in a densely populated, low income area that normally generated high bus patronage. By the end of the experiment, patronage had increased 79%, but the revenue collected was less than the revenue obtained when the 25¢ fare was in effect. Also, there was no change in traffic congestion or CBD retail sales. A passenger interview study disclosed that the patronage increase was derived from frequent use by people who patronized the bus service before the fare reduction and not by people who used automobile transportation.$^1$

The second experiment provided express bus service from an upper income, residential community to Boston—a distance of twenty miles. No public transportation existed prior to the experiment because a multiple-lane, divided expressway offered excellent automobile access from the community to Boston. During the seven week trial period, patronage remained low.$^2$ Therefore, the experiment indicated that people in an upper income community having

$^1$Ibid., p. 11. $^2$Ibid., pp. 15-16.
expressway access to a metropolitan area preferred automobile transportation to bus service.

A third experiment furnished bus service from a CBD to a suburban industrial plant employing 10,000 persons. The maximum revenue received for any one month during the six month trial period paid only 9.12% of the operating cost. Interviews with plant employees showed that many considered car pools cheaper and more convenient than bus service. Thus, a suburban plant with adequate parking facilities did not produce sufficient patronage to warrant a bus service.

In Boston, a fourth experiment offered express bus service from suburban drive-in theaters near expressways to the CBD. The service attracted automobile drivers to park at the theaters and ride the bus to the CBD. The parking fee and round-trip bus fare was $1.00--half the fee for parking all day in the CBD. Patronage was minimal throughout the trial period. Interviewers found that the $1.00 saved by patronizing the service did not provide enough incentive for an automobile driver to leave the expressway and board a bus. In this experiment, convenience and speed were more important in determining transportation than was cost.

The bus patronage gained through the four experiments

1Ibid., p. 18. 2Ibid., p. 38.
discussed did not justify the continuation of the methods tested; however, the interviews provided valuable knowledge concerning the motives that influenced a person's choice of transportation. For instance, all the interviews concluded that a person was influenced more by convenience and speed than by cost when selecting a means of transportation; invariably, the automobile proved more convenient and faster than bus service.

**Transit Improvement Program for New Orleans, Louisiana**

After 1945 transit companies in the United States attempted to compensate for post-war increases in wages and material costs by raising fares. The City of New Orleans, nevertheless, believed that higher fares would not offset higher costs but would accelerate the transit patronage decline and increase traffic congestion because of greater automobile usage. As a result, the City has been more concerned with reducing traffic congestion than making profits from the transit service. The City's 10¢ fare rate—the lowest in the nation—has kept the City's bus patronage at twice the national average.¹ If New Orleans bus patronage was reduced by half—so that it equaled the national average—130,000 daily bus passengers would use the automobile; at an occupancy ratio of 1.55 passengers

¹"New Orleans Has An Answer to the Transit Enigma," *Metropolitan*, LXI (September, 1965), 25, 25.
per automobile, there would be an additional 84,000 daily automobile trips in New Orleans.¹ A decrease in bus patronage would not only result in traffic congestion, but it would also overcrowd parking facilities and cause more traffic accidents.

Under a unique agreement with the City, the New Orleans Public Service Company, Inc. (NOPSI), a private utility business, has provided bus, gas, and electric service. This agreement has allowed NOPSI a 7.5% return on its combined services. The NOPSI transit department has operated at a deficit ($3,800,000 for 1964); however, NOPSI has offset this loss by underwriting the transit deficit and thereby reducing the taxes on the other utilities. Thus, the transit department has not been subsidized by the other utilities, but it has been subsidy to the utilities. The transit deficit has not raised the City's utility rates; in fact, these rates have been next to the lowest out of the forty-one largest cities in the United States.²

The goal of minimum traffic congestion established by New Orleans after World War II has been achieved. The goal was reached by keeping bus fares low to attract a high patronage; only the agreement between the City and NOPSI made the low fares possible.

¹Ibid. 
²Ibid.
Transit Improvement Program for San Francisco, California

In the late 1940's, San Francisco and Oakland appointed a committee to study a rapid transit system. Although San Francisco-Oakland rivalry delayed the committee's progress, in 1957 the committee appealed to the California legislature for a law establishing the Bay Area Rapid Transit District (BARTD). A law approving BARTD was passed; acceptance by the supervisors of the counties where BARTD would be located was needed before a bond issue could be submitted to referendum.¹

BARTD was immediately accepted by San Francisco County and Alameda County supervisors. In Contra Costa County, ratification was doubtful. The deciding vote—one of approval—was cast by a supervisor from a rural area beyond the transit service. (The supervisor's vote was cast on the same day he received a call from Governor Brown and had breakfast with the mayors of San Francisco and Oakland.)²

There were two counties that did not approve BARTD. Marin County rejected BARTD when engineers stated that expanded rail traffic was not technically feasible over the Golden Gate Bridge—the transit connection between

²Ibid.
Marin County and San Francisco. In San Mateo County, the supervisors voted against the proposed district because of pressure from real estate owners. The owners believed that the County would forfeit future industrial development if taxes were raised. Moreover, San Mateo already had commuter service on the right-of-way that BARTD would follow.¹

In the counties that did approve the District--San Francisco, Alameda, and Contra Costa--an advertisement campaign was begun to promote voter acceptance of the $792,000,000 bond issue for BARTD's construction. Spokesmen for the campaign declared that BARTD was the only transportation system that could reduce traffic congestion on Bay Area freeways and streets. The spokesmen also maintained that additional freeways were not feasible for the following two reasons: (1) the Bay Area had few traffic corridors for freeways, and (2) residents concerned with the beauty of the Bay Area had formed pressure groups that opposed any new freeway plans.²

Henry W. Alexander, BARTD's campaign manager, stated that the success of the bond issue depended on the support of Bay Area business leaders and newspapers. The support was achieved with assistance from two BARTD board members--Adrieu Falk, past president of S & W Fine Foods, and Alan

¹Ibid. ²Ibid.
Browne, a vice-president of the Bank of America. The campaign backed by these men succeeded; 61.2% of the electorate, or 1.2% above the 60% majority required for passage, voted for the bond issue.  

After the bond issue had been passed, engineers determined the operating characteristics of BARTD's seventy-five mile route. Speeds would be set for fifty miles per hour, including stops, with ninety second intervals during peak hours and fifteen minute intervals during the remainder of the day.  

Fares would be based on 25¢ for the first eight miles and a gradual decline in cost per mile thereafter. Fare collection would be designed for payment at the transit station after a computer turnstile had tabulated the amount on a punch card. Regular commuter customers would insert a credit-card in the turnstile and then receive a monthly statement for the distances travelled. This type of collection would reduce the boarding time to twenty seconds.  

Operating expenses and fare revenue for BARTD were

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1Ibid.


3Ibid., p. 24.

estimated from standards used by the Interstate Commerce Commission for determining electric railway expenditures and revenue. The estimates indicated that in the first eighteen months of operation, BARTD would have a net revenue of $11,073,000; it would net an additional $11,000,000 per year until 1980.¹

The creation of the Bay Area Rapid Transit District depended on cooperation from private enterprise and from every level of government. The HHFA granted $4,886,000 to BARTD to construct a four and one-half mile test track.² The State of California provided the law approving BARTD, and three counties allowed the bond issue to be submitted to referendum. Finally, the advertisement campaign, business leaders, and newspapers convinced the voters to accept higher property taxes in order that BARTD could be constructed.

Transit Improvement Program for Santa Monica, California

The improvement program of the Santa Monica Municipal Bus Line began in 1933 when the Mayor's wife wanted bus exteriors painted blue and interiors painted pastel colors. Following a color change, the bus line expanded


² Ibid., p. 27.
its public relations program and service to boost patronage. New passengers, some of whom were persons from families owning two or three automobiles, were attracted by the greater prestige and service of the bus line.

As part of the public relations program, the bus line has employed several outstanding techniques to acquire new passengers and to keep the present passengers. The bus line has spent 0.5% of its gross revenue in advertising the slogan "Step up to a Big Blue Bus and Go First Class" on radio and in newspapers. The bus line has answered telephone requests for bus schedules by personal delivery in radio-equipped automobiles. Trained employees of the bus line have personally replied to the complaints of passengers; moreover, bus drivers, who have been educated in public relations, have helped maintain passenger loyalty. The bus line fleet has kept its modern appearance through the purchase of ten new busses every year since 1953 and by the application of a new coat of paint every two and one-half years. The bus line has eliminated the diesel odor of the busses by mixing Malibate, a perfume by-product of Jergen's hand lotion, with the fuel.

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1 Interview with Howard V. Buell, Assistant Director of Transportation, Santa Monica Municipal Bus Line, April 5, 1966.


3 Interview with Buell, April 5, 1966.
The transit improvement program helped the bus line increase its passengers from 10,957,137 in 1955 to 13,409,909 in 1965. Also, in 1965, the bus line made a profit of $62,026.74. The increase in patronage and the profitable returns would not have been possible without the densely populated area of Santa Monica. For instance, Santa Monica's bus line has been serving an area of sixty square miles with a population of 300,000; however, Fresno's bus line has been serving an equal area but with a population of only 160,000. Furthermore, the majority of Santa Monica's routes have been serving both commercial and high density, multiple-family residential areas. On the other hand, the majority of Fresno's routes have been serving low density, single-family residential areas.¹

Summary of Chapter

The problems of urban mass transportation—loss of patronage and increase in the cost of labor and material—have known no boundary, whether private or public, local or regional. Thus, these problems have required and have received the assistance of federal, state, county, and city governments in cooperation with privately owned transit companies and other private groups affected by urban transportation.

The different levels of government, together with

¹Ibid.
private companies and groups, have attempted to solve the problems of urban mass transportation through improvement programs. The common goal of all transit improvement programs has been to convert automobile drivers and passengers into mass transit passengers. This goal has been necessary to prevent further traffic congestion, crowded parking facilities, and street widening. Automobile drivers and passengers have changed to public transportation when it has provided the convenience, service, and prestige of the automobile. Cost has been an unimportant motive in determining means of transportation.
CHAPTER V

TRANSIT METHODS NOT APPLICABLE TO FRESNO

Variables Affecting Transit Methods

As shown by the experience of cities throughout the United States, certain variables have determined the success or failure of methods used in transit improvement programs. Some of these variables, the physical characteristics of cities, have been area density, income level, adequacy of freeway systems, and location of shopping and employment centers. Consequently, the physical characteristics of Fresno would determine the success or failure of any methods applied to the Fresno Municipal Bus Line.

Other variables, such as length of trial periods, public relation programs, and standards used to determine success or failure, have also affected the results of methods. Longer trial periods have allowed the public sufficient time to become accustomed to new methods. Public relation programs have made the public aware of new methods. Standards for success or failure have decided what amount of patronage increase was needed to declare a new method successful or unsuccessful.
Rapid Transit Rail System

A rapid transit rail system must operate along corridors with heavy traffic concentration. Also, corridors must have major employment and shopping areas or densely populated residential areas alongside them.¹ These requirements have been common to all metropolitan areas served by a rapid transit rail system. Fresno's low population density has been responsible for the lack of these requirements for a rapid transit system.² With the exception of Blackstone, Fresno's decentralized street pattern has prevented any one street from developing a heavy concentration of traffic; even Blackstone has reached capacity only during peak travel time (7:30 A.M. to 9:00 P.M.).³

Street patterns of most cities with rapid transit rail systems were developed before the presence of the automobile. The population of the cities followed the transit lines to suburban areas and settled in densely populated residential communities. Residents of the communities rode rapid transit to their jobs in the city. Thus, the


²Fresno, California, Planning and Public Works Departments of the City and County of Fresno, Transportation Recommendations: Fresno-Clovis Metropolitan Area Project 1964, March, 1964, p. 6.

transit lines developed their own corridors from the communities built near them.

In Fresno, on the other hand, the population expansion depended on automobile transportation and not on rapid transit rail systems. The dependence on automobile transportation produced a decentralized pattern of growth and a low population density. This was in contrast to the cities whose growth followed the transit lines and had a high population density.

Several communities, such as Clovis, Reedley, Kingsburg, Madera, and Sanger, have resembled communities built near transit lines in that all have been located similar distances from a central city and all have had comparable population densities. Nevertheless, one important difference has been that these communities near Fresno have generated jobs for their residents and have not provided the commuter patronage needed for a rapid transit system. Communities near transit lines have not produced jobs since their residents already held jobs in the cities near the communities. These communities have provided the commuter patronage needed for a rapid transit system.

Neither the communities surrounding Fresno nor the low population density of Fresno have warranted a rapid transit rail system in Fresno. Moreover, when Fresno's freeway system is completed in 1974, 97% of its traffic
volume will be for intra-city travel.¹ This will increase the importance of automobile transportation and thereby reduce the demand for public transportation. Studies in transportation have complemented this future development by confirming that freeway systems have been the best type of transit system for a low density metropolitan area.²

Although the freeway system will provide Fresno with an adequate means of intra-city transportation until 1985, beyond this date population movement may justify the need for a rapid transit rail system. In this case, Fresno could follow the plans of other cities that have made provisions for future rapid transit routes by allowing additional median strips for freeways. Employing this method, rapid transit routes would follow the median strips and not need more rights-of-way.³

Minibus System

The Minibus system was designed exclusively for transportation within the CBD of a city. In Washington, D.C.,

¹Interview with Charles B. Flood, Assistant Traffic Engineer, City of Fresno, California, June 10, 1966.

²Donald S. Berry et al., The Technology of Urban Transportation (Evanston, Ill.: Northwestern University Press, 1963), p. 117.

the twenty-seven federal government buildings and commercial businesses in the seventy square block CBD provided a high volume of pedestrian traffic that was suitable for Minibus operation. With its low fares and frequent stops, the Minibus' success in attracting enough passengers assured permanent operation; the federal government's grant made it impossible to determine if the operation was self-sustaining.

Fresno, on the other hand, would not support a Minibus operation because of the CBD's small square block area and low volume of pedestrian traffic. The Mall Tram operation has served a similar function as the Minibus in that both have provided only CBD transportation. Fresno CBD pedestrian traffic during the morning hours has been low and thus has accounted for the Tram's deficit of $2,200 for 1965, even though CBD pedestrians have patronized the Tram operation.

**Lower Fares**

Fresno should not decrease bus fares for the following reasons. First, in 1961 Fresno's bus fares were lowered from 25¢ to 20¢; there was no increase in bus patronage. Second, Massachusetts' experience showed that, although a decrease in fares was accompanied by an increase in patronage, there was no corresponding decrease in automobile

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1Interview with Berg, March 16, 1966.
congestion. Third, the possibility exists that, in cities such as New Orleans where low bus fare was accompanied by large patronage, the income level of the populace was low; it may be that in such low income areas, where private automobile transportation is not economically feasible, bus patronage, even if rates were higher, would have remained approximately the same. Fourth, the transit improvement programs concluded that convenience and speed were more important than cost in determining a person's means of transportation.

Crosstown Routes

Crosstown routes have been tried in Fresno, and their patronage did not justify their existence. The successful routes operated directly from the CBD to the suburban areas, and the unsuccessful routes operated on a crosstown pattern. When the latest route changes were made in 1965, the remaining crosstown routes were eliminated.

Shoppers Special Bus Service

A shoppers special bus route with a 10¢ fare was initiated by the Fresno Municipal Bus Line in 1961. The fare was set at a low rate to attract a high number of passengers. The passengers paid the 10¢ fare only if they

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1Wilbur Smith, Fresno Transit Study, p. 16.
boarded the bus and rode within the route surrounding the CBD. Although this route was discontinued because of low patronage, another shoppers special was introduced; and the Downtown Association, a group of CBD businessmen, reimbursed the bus line for the operating cost not paid by fare revenue. This route was also terminated because of low patronage. The two variables that affected patronage on both occasions were the amount of publicity to inform the public of the service and the potential number of passengers who lived within the route's boundaries. Since no studies were made concerning the low patronage, the importance of the two variables was not determined. Because of the two failures, both of which ended in low patronage, a future shoppers special service is not recommended for Fresno.

The basis of this recommendation is not only the failure of the shoppers special bus service in Fresno, but also the experience of the service in Massachusetts and Memphis. The Massachusetts experiment increased patronage 79%, but the fare revenue collected was lower than the revenue produced by higher fares. Also, traffic congestion and CBD retail sales were not affected. In Memphis, CBD busses offered service for 5¢ and then for free, but patronage remained low. Although the service was discontinued, it was later re-established with a 10¢ fare.
Local-Express Bus Service

Local-express bus service, which was tried in Memphis, provided fast service from an express point in the suburbs by travelling non-stop to the CBD. Local busses provided service to the bus stops between the express point and the CBD. This type of route—local-express bus service—would not succeed in Fresno for two reasons. One, results in Memphis proved that passengers became irritated when they were required to transfer from local busses to express busses. People waiting at local bus stops also became annoyed when express busses with vacant seats passed by. The dissatisfaction caused the abandonment of the route in Memphis. Two, local-express routes would require more frequent service than Fresno has provided in the past. Fresno has fifteen and thirty minutes for the intervals between bus stops. If Fresno had a local-express route, express busses would pass people who waited as long as thirty minutes for a local bus.

Park-and-Ride Bus Service

Park-and-ride service attempted in Boston and Memphis provided express bus service on freeways from parking facilities in suburban areas to the CBD. Parking facilities were located near freeway exits. In Boston, the park-and-ride service cost half the rate of all day CBD automobile parking; however, the convenience of the freeway
for automobile transportation to the CBD was of greater importance to the automobile driver than the money saved from downtown parking. Unless the motives of automobile drivers change, a park-and-ride service would not be suitable for Fresno when the freeway is completed. Furthermore, Fresno has a smaller population than Boston or Memphis and thus has fewer people to patronize a park-and-ride service.

**Summary of Chapter**

There are several methods to improve mass transit service that would not be applicable to Fresno. First, a rapid transit system would fail because Fresno lacks high population density and corridors with heavy traffic concentration. Second, a Minibus system in the CBD would not be warranted because of the small size of the CBD and the low volume of pedestrian traffic. Third, lower fares would not attract automobile drivers and therefore would not reduce automobile congestion. Fourth, the experience of Fresno has shown that crosstown routes would not be patronized sufficiently to justify their existence. Fifth, the two failures of the shoppers special bus service in Fresno has demonstrated that this service would not succeed because of low patronage. Sixth, local-express bus service would not be successful because of passenger dissatisfaction with time intervals between busses and with transfers from
local busses to express busses. Seventh, park-and-ride service would be unsuitable because of low patronage; the automobile driver would prefer the convenience and speed of his own automobile on the freeway to bus transportation.
CHAPTER VI

TRANSIT METHODS APPLICABLE TO FRESNO

Goals of Transit Methods

Some of the methods suggested to improve the Fresno Municipal Bus Line would increase patronage, and others would reduce operating cost. A few of the methods would raise patronage and lower cost. Goals of the methods for boosting patronage would be to increase the speed, convenience, and prestige of the bus line. Only by achieving these goals would the bus line be able to attract a greater number of people, especially automobile drivers and passengers, to patronize bus transportation.

Federal Government Grant

The federal government has granted financial aid to cities and transit authorities for two-thirds the cost of new urban mass transportation equipment. Under the Urban Mass Transportation Act of 1964, the Department of Housing and Urban Development had provided by January 1, 1966, $79,200,000 for capital grant projects. Of this total, 60% has been spent to replace outdated equipment; and
sixteen of the twenty-four projects approved purchased new busses for local transit systems.¹

If approved, a grant would provide the Fresno Municipal Bus Line with new air-conditioned busses. The new busses would replace older busses—some nineteen years old—and thereby eliminate the maintenance and repair costs of the replaced busses.² Also, the grant would pay two-thirds the cost of new busses.

Santa Monica discovered that new busses increased the prestige of public transportation; moreover, this increase in prestige raised patronage. The operation of new air-conditioned busses in Memphis increased patronage by 4%. Thus, a federal grant would increase the patronage of Fresno's bus line and would reduce its maintenance, repair, and new equipment costs.

**Lower Interest Rate**

The interest rate on equipment was 7% when the City of Fresno purchased Fresno City Lines, Inc., in 1961. The rate was reduced in 1965 to 3.5% by an agreement to purchase new busses between the Fresno Equipment Company, a non-profit company established by the City of Fresno, and the

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²Interview with Nickelson, June 13, 1966.
United California Bank.¹ If a federal grant were approved, the interest rate would remain the same; however, the amount of loans needed would decline. The reduction in the interest rate created a savings in operating cost for the bus line.

**Advertisement on Bus Benches**

The Fresno Municipal Bus Line has lost $7,000 per year income since advertisement on bus benches was prohibited by the City Council. The decrease in revenue has been accompanied by an increase of $3,000 per year for painting the benches.² If advertisement were returned to the bus benches, the revenue of the bus line would increase; maintenance cost would decrease because the advertisers would paint the benches.

**Charter Bus Business**

Fresno charter busses have always operated at a profit. This profit-making ability has lowered the deficits of the city routes and improved the financial record of the bus line. In 1965 charter revenue was $129,000, and city route revenue was $498,000. Charter revenue increased in 1966 with $24,000 earned in May compared to city route revenue of $43,000 in the same month. Also, charter revenue rose 53% from December, 1965, to May, 1966. Federal

¹Ibid. ²Ibid.
grants-in-aid to poorer schools for field trips contributed to the rise in charter revenue during the first five months of 1966. Without the federal aid, charter business has increased 16% every year since 1961 from the nationwide trend of clubs and organizations to charter busses for trips to conventions, recreational areas, and sporting events. Continued expansion of the charter bus business is recommended.

**Validated Bus Fares**

Downtown businessmen have been validating parking lot fees but have not been validating bus fares. The businessmen's cost for validating bus fares would be the same for validating parking lot fees. If bus fares were validated, greater patronage would result for both the bus line and the downtown businesses in Fresno.

**Stabilized Bus Routes**

Changes in bus routes have made patronage decline until the passengers have become accustomed to the new routes. The frequent bus route changes during the first four years under City ownership disrupted bus passengers' riding habits and contributed to a decline in patronage. Since February, 1965, no routes have been changed. The

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1. Ibid., May 26, 1966.
2. Interview with Berg, March 16, 1966.
route stability has helped patronage rise an estimated 1% for 1966. The policy of changing routes only when demand warrants change should continue.

Public Relation Program

The Fresno Municipal Bus Line should begin a public relation program to improve its image. The foremost public relation technique of many bus lines has been air-conditioning. Chicago ordered 180 air-conditioned busses in 1963. Also, in 1963, Philadelphia purchased 50 air-conditioned busses. Even in the cool San Francisco Bay Area, 112 of the 280 busses operating between San Francisco and the East Bay have been air-conditioned. Patronage rose 4% in Memphis after air-conditioned busses were placed in operation. As stated earlier in this chapter, a federal grant-in-aid would provide Fresno with air-conditioned busses in addition to the air-conditioned busses already operating.

As air-conditioning has upgraded bus transportation, cartoons and posters have downgraded automobile transportation. Cartoons have shown the difficulties of driving an

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1Interview with Nickelson, June 13, 1966.


3Memphis, Mass Transportation in Memphis, pp. 16, 18.
automobile under bad weather conditions such as snow and ice. Other cartoons have shown the downtown traffic confusion such as that caused by numerous directional signals, parking meters, and automobiles. The cartoons have often concluded by asking, "Why not take a bus?" Fresno's bus line could increase its patronage through the use of cartoons such as those mentioned above.

Bus lines have innovated unique services to improve the prestige of bus transportation. For instance, the bus line in Tampa, Florida, has furnished special bus service for convention visitors. Also, the bus line has offered tours of the city of Tampa for new school teachers. New bus schedules have been mailed to residents in Cleveland, Ohio, before routes have been changed. The bus line in Albuquerque, New Mexico, has mailed bus schedules to new residents and all residents within walking distance of the bus routes. In Santa Monica, the bus line has mixed perfume with the fuel to eliminate the diesel odor of busses.  

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1Carlson, Metropolitan, Transportation, and Planning, LIX, 30-31.

2Ibid., 31.


4D. M. Carlson, "Personalized Transit Service," Metropolitan, Transportation, and Planning, LIX (September, 1963), 46, 47.

5Interview with Buell, April 5, 1966.
Third, advertisement on bus benches would increase revenue and decrease maintenance cost. Fourth, continued expansion of charter bus business would lower operating cost. Fifth, validating bus fares would raise patronage. Sixth, stable routes would maintain a patronage higher than frequent route changes. Seventh, public relation program would improve prestige. Eighth, express bus service would increase bus speed.

These methods would improve service and lower the operating cost of the bus line, but they would never do so to the point that the bus line could make a profit. No methods could solve the high cost of labor and material and the low patronage resulting from competition with the automobile. Street expansion and new parking facilities near the Fulton Mall have increased automobile usage. Completion of the freeway system would further expand the use of the automobile.

The competition of the automobile and the high cost of labor and material have kept many other cities besides Fresno from making a profit. For instance, New Orleans' bus line had a deficit of $3,800,000 in 1964.¹ The City of Palo Alto, California, paid $107,400 for nine new busses and $67,272 per year for subsidies to the privately owned

¹ "New Orleans Answer to Transit Enigma," Metropolitan, LXI, 25.
bus line servicing the city. Some bus lines have claimed a profit; however, most of these bus lines have not included all operating expenses on their financial statements. These bus lines have received fuel, tires, maintenance work, and parking areas from the cities they service at no cost. A bus line that earns a profit has been the exception and not the rule.

1"Palo Alto, California . . . ," Metropolitan, LXI (July, 1965), 39, 40.
CHAPTER VII

THE GOVERNMENTS' ROLE IN URBAN MASS TRANSPORTATION

Local Government

The metropolitan area should be the basis for urban mass transportation planning. A board composed of representatives from all government levels and business leaders in the area should direct the planning program. This type of planning body would be a metropolitan area transit district such as the San Francisco Bay Area Rapid Transit District or the Boston Metropolitan Transit Authority.

A transit district for the Fresno metropolitan area was proposed by the City Council in 1962. The Fresno County Board of Supervisors, however, rejected the Council's proposal because half the district was in the County. Moreover, Fresno's bus line did not serve all the district. The Board recommended that the district's boundaries be limited to the Fresno city limits.1

In 1964 the residents of Stockton, California, approved a $910,000 bond issue to establish the Metropolitan Stockton Transit District with boundaries limited to the city limits. The bond issue allowed the District to

1Fresno Bee, August 19, 1962, 4-B.
purchase and modernize the two private bus lines serving Stockton. Also, the bond issue added $1.20 to the average homeowner's property tax.¹

Thus, a transit district should include only the area that would be served by mass transit. Any area not served would vote against a transit district. In Fresno, the County Board of Supervisors, who represented the County's residents not served, voted against a transit district. Stockton's residents, on the other hand, approved a transit district because the bus lines served the entire area. In Contra Costa County, where BARTD will serve only a portion of the area, the transit district was approved, but by only one vote.²

State Government

The cooperation of state government with metropolitan area transit districts is necessary because the powers of the district are granted by state laws. For instance, a law was required by the California legislature before the San Francisco Bay Area Rapid Transit District's bond issue could be submitted to referendum.³ In Los Angeles, the residents approved the Southern California

¹"Metroscope," Metropolitan, LX (September, 1964), 55, 55.
³Ibid.
Rapid Transit District on November 5, 1964; however, it was not until May 20, 1966, that the California legislature passed a law permitting the District to levy taxes totaling $3,900,000.¹

After 1966 cooperation between state governments and urban areas will improve, thereby increasing state assistance to metropolitan transportation problems. The provision for this improvement was provided by the United States Supreme Court's Reynolds v. Sims decision that required both houses of state legislatures to be based on proportional representation.² Under this decision, urban area representatives will increase in the state legislature. As a result, the state legislatures will become more responsive to urban problems.

All states have highway departments that help plan urban transportation by the construction of freeways through cities. Several states, such as Maryland and Massachusetts, have recognized urban mass transit problems; therefore, they have created state mass transit agencies. The Metropolitan Transit Authority of Maryland and Mass Transportation Commission of Massachusetts have conducted


federal aid to plan comprehensive urban transportation systems. He wrote:

We are pledged to assist in the sound development of our cities, and believe Federal financial assistance should be provided to help plan and develop the comprehensive and balanced transportation systems which they so desperately need. Such assistance will not only directly benefit our cities but will also make more effective use of Federal funds spent for other urban development programs.¹

Congress answered the President's letter with the Housing Act of 1961. Section 303 of this act provided $25,000,000 for mass transportation demonstration projects. Two-thirds the cost of planning urban mass transportation programs was granted to cities and transit authorities. Grants for major long-term capital improvements, such as busses, garages, shop facilities, and ferryboats, were not included in the act.²

The statements by President Kennedy and the Housing Act of 1961 exemplify the federal government's attempt to fulfill the need of cities and transit authorities to improve and develop rapid transit. Before the Housing Act was passed, the federal government only financed one phase of land transportation--interstate highway construction. The highway construction has been financed 90% by a four-cent federal tax on gasoline and other highway use charges.

¹Ibid., p. 465.
Until the Housing Act was enacted, there had been no comparable revenue source for rapid transit. The demonstration programs provided for in the act increased pressure on Congress for a comprehensive subsidy program.

No legislation granting financial aid for urban mass transportation was passed by Congress in 1962; however, the Highway Act of 1962 made provisions for urban transportation planning. After July 1, 1965, this act would not grant assistance for highways to cities with 50,000 population or more unless they had a comprehensive transportation plan that included several means of transportation.\(^1\)

In his 1963 State of the Union message, President Kennedy emphasized the need for federal assistance to support local transit and relieve the traffic congestion of cities.\(^2\) The President's message went beyond the subject of rapid transit by including all phases of urban mass transportation. On February 18, 1963, President Kennedy submitted to Congress a draft bill that would initiate a long-range program of federal aid to solve urban mass transportation problems.\(^3\) Although an urban mass

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\(^1\)Highway Act of 1962, in U.S., Statutes at Large, LXXVI, p. 1148.


\(^3\)Ibid., p. 183.
transportation bill was passed by the House of Representatives during 1963, it was not voted on by the Senate.
In 1964 President Lyndon B. Johnson urged Congress to enact legislation for federal assistance to modernize urban mass transportation facilities.¹

Congress responded to President Johnson's appeal by passing the Urban Mass Transportation Act of 1964. This became the first federal law that pertained exclusively to urban mass transportation. The act authorized long-range programs with grants of $75,000,000 for 1965 and $150,000,000 for 1966 and 1967. Of these totals, research and demonstration projects received $10,000,000 for 1965, $20,000,000 for 1966, and $30,000,000 for 1967. The remaining money was reserved for long-term capital improvements not included in the Housing Act of 1961. Project costs were paid two-thirds by the federal government and one-third by the city or transit authority receiving the grant. No financial assistance was granted unless provisions were made for relocating displaced persons and consideration was given to air pollution control.²


terminates in 1967, replacement legislation will be developed in the Fall of 1966.

On March 2, 1966, President Johnson re-emphasized the necessity for federal planning in transportation in a proposal for cabinet-level Department of Transportation. Included in the proposed Department was a provision for cooperation with the Housing and Urban Development in decisions affecting urban transportation. As of June, 1966, the Department of Transportation had not been approved by Congress.

Summary of Chapter

Planning urban mass transportation, which should have as its basis the metropolitan area, should be accomplished by representatives of city, county, state, and federal governments and by leaders in the business community. The planning should consider street and freeway development, bus transportation, metropolitan transit districts, and rapid transit rail systems together with the land use pattern of the metropolitan area. The cost of financing the planning and development of urban mass transportation should come from all levels of government and from the revenue earned by the transit systems. In

1962 and 1964, the federal government passed laws to grant large amounts of money for planning transit improvement programs and for new equipment purchases.
CHAPTER VIII

FUTURE OF PUBLIC TRANSPORTATION IN FRESNO

City of Fresno

The transportation system of Fresno has been planned for the automobile. This planning has continued with the one-way streets, wider streets, expansion of downtown parking facilities, and future freeway system. The streets designed for automobile transportation have also been used by bus transportation. The Wilbur Smith study has proposed express bus service using the freeway; such service has been successful in several cities and would be successful in Fresno.¹ Plans are being developed for shelters at bus stops in the downtown area with an air-conditioned shelter at Fresno and Van Ness.²

A metropolitan area transit district with boundaries beyond the city limits would not be feasible. A transit district with boundaries outside the city limits would not be approved unless the busses served all portions of the district. People would not vote themselves a tax increase for a service they would not receive. Moreover, the area

¹Wilbur Smith, Fresno Transit Study, p. 65.
²Interview with Nickelson, June 13, 1966.
outside the city limits included in the district would have a lower density and fewer potential passengers than the area inside the city limits. Extension of service into this area outside the city limits would increase the cost per mile of bus operations.

Additional public transportation planning was approved by the City Council on May 19, 1966. This approval was an endorsement of a statement made by Mayor Floyd H. Hyde. The Mayor's statement and the Council's recommendation directed City Manager John L. Taylor to develop a plan for a rapid transit system for the Fresno metropolitan area by December 31, 1966.1

State of California

If plans for a rapid transit system were developed for Fresno, cooperation with the California Division of Highways would provide additional land for median strips on the freeways. If the rapid transit system were built, its rights-of-way would follow the median strips.

United States Government

A study is required for planning Fresno's mass transportation system before a federal grant can be approved. Regardless of Fresno's future need for a rapid transit system, greater immediate problems must first be solved. A

1Fresno Bee, May 20, 1966, 1-C.
federal grant is needed in order to upgrade public transportation through the purchase of new air-conditioned busses and other equipment for the Fresno Municipal Bus Line. The grant would increase the prestige of bus transportation, attract a greater patronage, and lower the operating cost.
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