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California state intercity bus plan

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March 4, 1982

Hon. Darryl R. White
Secretary of the Senate
State Capitol, Room 3045
Sacramento, CA 95814

Hon. James D. Driscoll
Chief Clerk of the Assembly
State Capitol, Room 3194
Sacramento, CA 95814

Gentlemen:

I am pleased to submit the STATE INTERCITY BUS PLAN as requested by the Legislature through the Budget Act of 1981 (Item 266-001-041). The legislative direction for the STATE INTERCITY BUS PLAN asked that the Department offer alternatives for future State involvement in the intercity bus area, estimates for the projected State capital and operating costs and revenues for each of these alternatives, and a recommended approach for future State action.

The Plan represents the Department's analysis of the State's intercity bus industry and offers a range of actions that will give focus and guidance to this essential and energy-efficient public transportation service. Proposed State actions include:

- Long-term State actions to offer guidance and support to the intercity bus transportation system in California;
- Regulatory reform of California's intercity bus industry to restore competitive parity upon introduction of federal reforms; and,
- A Five-Year Emergency Transition Program to temper the immediate adverse impacts of intercity bus regulatory reform.

Workshops and meetings with local public officials and regional transportation planning agencies have helped shape specific elements contained within the Plan.

While the proposed State actions discussed in the Plan require a fiscal commitment, they directly address pressing needs influenced by federal action in the area of regulatory reform. Emphasis has been placed on maximum use of existing programs and resources so as to minimize overall State costs.

Sincerely,

Adriana Gianturco

ADRIANA GIANTURCO
Director of Transportation

Enclosure

STATE INTERCITY BUS PLAN

A Report to the
California Legislature
in Conformity with
Chapter 99
Item 266-001-041
of the
1981 Budget Act

by
Department of Transportation
Division of Mass Transportation

March 1, 1982

DMT - 094

State Intercity Bus Plan Advisory Committees

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Mr. Charles Davis, Caltrans, Federal Assistance Branch, Division of Mass Transportation
Mr. Richard A. Elbrecht, Department of Consumer Affairs
Mr. Hugh Fitzpatrick, California Transportation Commission
Mr. Chuck Flemming, Department of Rehabilitation
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Mr. Dave Howell, Department of Aging
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Ms. Trudy P. Schafer, League of Women Voters
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Mr. Steve Schnaidt, Senate Committee on Transportation
Mr. Dick Troy, Department of Parks and Recreation

TECHNICAL ADVISORY COMMITTEE

Mr. Thomas D. Albert, Monterey-Salinas Transit
Mr. Alex B. Allen, Amador Stage Lines
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Mr. Roger Murphy, Trailways, Inc.
Mr. Phil Simpson, Caltrans, Division of Transportation Planning
Mr. Charles Welches, Caltrans, Intermodal Facilities Branch, Division of Mass Transportation
Mr. William H. Well, California Public Utilities Commission

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* Enabling legislation for this agency terminated 12/31/81.

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Preface

The intercity bus provides the traveling public with an energy efficient transportation alternative. Service is available to most California communities, regardless of size, through an extensive service network over an excellent Statewide highway system.

This Plan for intercity bus transportation in California was prepared in conformance with the Budget Acts for Fiscal Years 1979-80 and 1980-81.

The legislative direction for the State Intercity Bus Plan asked that the Department offer alternatives for future State involvement in the intercity bus area, estimate the projected State capital and operating costs and revenues for each of these alternatives, and recommend an approach for future State action. The State Intercity Bus Plan proposes specific State actions to guide and develop intercity bus transportation in California. Proposed State actions are:

- Long-term State actions to offer guidance and support to the intercity bus transportation system in California.

- Regulatory reform of California's intercity bus industry to restore competitive parity upon introduction of federal reforms and,

- A Five-Year Emergency Transition Program to temper the immediate adverse impacts of intercity bus regulatory reform.

It is hoped that we can expeditiously implement the Plan so as to maintain and enhance this essential public transportation mode.

ADRIANA GIANTURCO
Director of Transportation

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DEPARTMENTAL TRANSPORTATION
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February 12, 1982

Ms. Adriana Gianturco
Director of Transportation
Department of Transportation
1120 N Street
Sacramento, CA 95814

Dear Adriana:

At its February 3, 1982 meeting, the Departmental Transportation Advisory Committee reviewed the draft State Intercity Bus Plan. This plan has been prepared in conformance with the control language of the Budget Act of 1981-82.

Following a slide presentation and discussion, the Committee passed a motion to take no action on the document as there were questions concerning the plan's economic and other long-range ramifications. In addition, it was requested that this letter be transmitted with the plan to the Legislature.

Sincerely,

Betsy Marchand

BETSY MARCHAND
Chairman

Executive Summary

A new era for intercity passenger travel is likely, perhaps only months away. The national trend to deregulate transportation industries is now turning attention toward the most fundamental of surface passenger services--intercity bus transportation. The House of Representatives passed the Bus Regulatory Reform Act of 1981 on November 19, 1981. The bill now proceeds to the Senate for consideration in the spring of 1982. The State Intercity Bus Plan examines the issue of regulatory reform and other major problems affecting intercity bus transportation in California. The Plan also introduces the concept of a "Basic State Intercity Bus Network" that links together the largest community in each county, cities over 5,000 population, seats of county governments, and National and State Parks with an annual attendance of more than 1 million visitors.

BACKGROUND

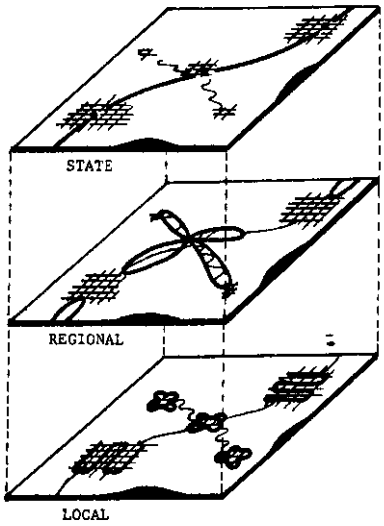
The State Legislature directed Caltrans to prepare a State Intercity Bus Plan. The plan was to contain alternatives for future State involvement in the intercity bus area, projected State capital and operating costs and revenues for each of these alternatives, and a recommended approach for future State action. By requesting the production of the State Intercity Bus Plan, the Legislature took an initial step in ensuring the continuation of this essential public transportation mode.

The intercity bus represents an extremely energy efficient, widely available intercity transportation mode now providing service in California. Service is available to virtually every community with a population of 5,000 or greater through an extensive route network. Most service is provided by private intercity bus carriers without any direct public subsidization. Furthermore, intercity bus carriers pay use fees to utilize existing roadways and infrastructure.

Thus, they take advantage of an existing State resource, maximizing returns on spent public monies and consumed construction energy. Problems exist, however, that threaten service continuity and impede needed service expansion.

All forms of surface mass transportation during the past three decades have experienced a heavy diversion of passengers to personal automobiles and commercial aviation. The result has been limited growth in the intercity bus industry and heavy subsidy of public transit and rail passenger services.

In addition to competition from automobiles and aviation, private bus operators have encountered growing competition from expanding public transit systems in some locations. This competition has generally been unfair to the private operator and may actually be a disservice to the public. Subsidies tend to lower fares, distort consumer travel choices and impede rational resource allocation through the transportation market.



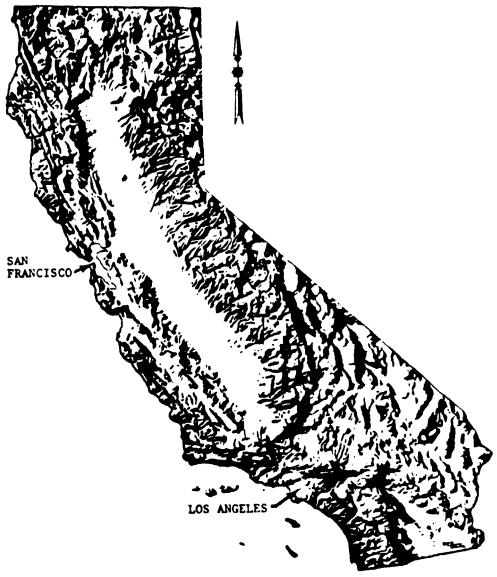
Public Transportation Service Hierarchy

INTERCITY BUS REGULATORY REFORM

The intercity bus industry has been heavily regulated by a slow, cumbersome, and protective regulatory system that denies private entrepreneurs the opportunity to match services to markets at a competitive price. Lately, regulatory bodies have started to relax requirements for "entry" into corridors already receiving bus service. This softening of rules has been viewed by some carriers as unbalanced and unfair regulatory application. Regulators are characterized as being unusually slow in addressing questions of rates and exit--but having "opened the door" in the area of entry. Relaxed policy, in the absence of strong enforcement measures to eliminate unsafe or unlawful operators, acts as a disincentive to existing operators who feel constrained by the obligation to maintain unprofitable "public service" routes.

The mood of the Congress, indeed of the people, is to remove governmental controls and regulations where there is no overwhelming and demonstrable need for them. Congress has begun to act; Caltrans will soon propose regulatory reform for California.

Lowering regulatory barriers will stimulate new and innovative services in major traffic corridors. However, some remote parts of the State may lose bus service and temporarily be without a public transportation alternative. The State must be prepared to provide assistance if service is to be maintained to all locations of Statewide interest. A Five-Year Emergency Transition Program is proposed to ease the change to a new operating environment.



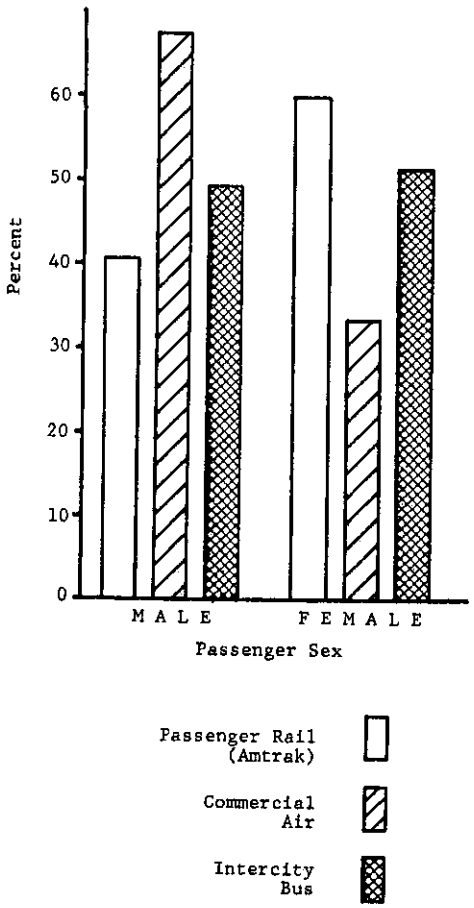
California Topographical Features

BASIC STATE INTERCITY BUS NETWORK

The State Intercity Bus Plan proposes the concept of a "Basic State Intercity Bus Network" of Statewide service. All principal locations[1] in the State are joined together in a select system covering 5,879 miles of county roads and state highways (see Figure 1).

Each route on the Basic State Intercity Bus Network has been evaluated in detail. Aided by a measure of patronage potential (called service loss potential), weak segments of the Network have been identified. Carrier reports of route unprofitability have also helped locate those Network routes most likely to be affected by service disruptions. The State's interest can best be served by maintaining at least a minimal level of service on the Basic State Intercity Bus Network.

[1]Largest community in each county, cities over 5,000 population, county seats, and National and State Parks with 1 million or more annual visitors.



Passenger Sex by Intercity Mode of Travel

PROBLEMS FACING THE PUBLIC AND THE INTERCITY BUS INDUSTRY

User Aspects

The intercity bus industry provides Californians with an inexpensive, widely available public transportation alternative. However, intercity bus passengers face a myriad of problems which act to deter potential patrons and cause discomfort for current users. One is safety; not only during the actual ride, but also at stations en route. Second, intercity bus service is not fully accessible to the physically handicapped. Since private intercity bus carriers do not usually receive public funding, accessibility requirements of the federal and State government are not mandated. Third, the intercity traveler must choose among numerous intercity transportation options, each with its own schedules and route structure. Travelers are not usually aware of the wide spectrum of bus and rail transportation alternatives to the private automobile. Fourth, an increasing number of unaccompanied children are traveling by bus within the State. Each carrier has different age and fare requirements for unaccompanied children seeking bus transportation.

Public Aspects

Californians face many problems which transcend the interest of individual users and are, instead, of public concern and interest.

First, decreasing energy supplies continue to necessitate conservation and use of efficient travel modes. Based on actual performance, intercity bus service has been shown to be an extremely energy efficient intercity travel mode. Second, decreasing environmental quality (for example, air and noise pollution) is a continuing concern. Once again, intercity bus service is a positive contributor to an enhanced environment through low average per capita pollutant output.

Note: Routes shown are approximate, subject to further detailed studies of population, traffic and travel paterns.

To Las Vegas

To Flagstaff

To Phoenix

To Tucson

To Mexicali

To Tijuana

To Klamath Falls

To Medford

To Reno

To Reno

To Carson City

LEGEND

- INTERSTATE ROUTE SIGN
- U S ROUTE SIGN
- STATE ROUTE SIGN
- STATE HIGHWAYS
- BASIC STATE NETWORK

SCALE IN MILES
10 0 10 20

Figure 1

BASIC STATE INTERCITY BUS NETWORK

March 1982

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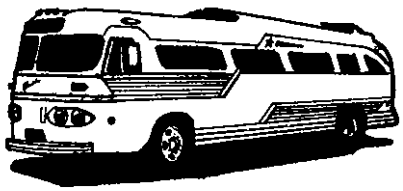
Third, community and economic growth is often affected by transportation availability. The intercity bus is the most widely available public travel mode, providing service to large urban areas and small rural communities alike. Fourth, available financial resources for the State's use are decreasing. Strong public advocacy for decreased government spending is being heard and acknowledged at all levels of government.

Intercity bus service is an economical service to provide and compares favorably with other surface transportation modes when public monies are to be used to subsidize services. Furthermore, intercity bus carriers efficiently use an existing public investment in established roads, highways, and infrastructure. Expanded service could be provided by many of the private carriers currently providing service in California with little or no change in facilities. Private carriers possess and are ready to offer the required equipment, knowledge, and experience for intercity transportation service.



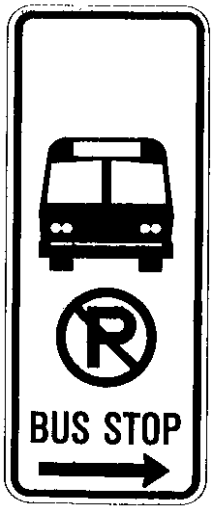
EXISTING PROGRAMS AND PROPOSED STATE ACTIONS TO IMPROVE INTERCITY BUS SERVICE IN CALIFORNIA

State actions proposed in the State Intercity Bus Plan adhere to established principles of fiscal frugality. Some actions include redefining the purpose and responsibilities of State regulatory and enforcement agencies which directly influence intercity bus service, while others formulate limited programs directed toward improving specific services. The former entail a restructuring of the governmental regulatory process, with assurance of beneficial competitive services and enhanced public safety standards. The latter actions include increased consumer information and assistance, limited term direct financial assistance to subsidize lost services, and actions to maintain and improve the intercity bus operating infrastructure.

Essential to both categories is the Basic State Intercity Bus Network, a network of essential service routes connecting principal locations in California.

EXISTING PROGRAMS AND RESOURCES

Current programs and resources can be given increased focus and direction to more efficiently use existing public investments (see Table 1).



Programs

Intercity Bus Service Improvement Program. In 1979, the Mass Transit Assistance Program (SB 620: Mills), authorized $1 million for the State to contract with private carriers for intercity bus transportation. The Department adopted guidelines specifying the purpose of the Program to be to support the continuation and development of intercity bus service in California. Funds are available for operating assistance (new, expanded, or innovative service), and for marketing.

Intermodal Facilities Program. The California Legislature has authorized the use of public monies to fund and administer intermodal facilities projects designed to improve the interfacing of two or more modes. The Intermodal Facilities Plan incorporates the Basic State Intercity Bus Network to aid in identifying corridors with greatest opportunity for interface and transfer among modes.

Roadside Bus Facilities Program. Funds are available for construction and maintenance of roadside bus facilities; including bus turnouts, passenger loading areas, passenger benches and shelters, and special traffic control devices.

Table 1

Existing State Programs and Resources Contributing to Intercity Bus Transportation

Program /Resource	Explanation	Funding Source	Funding Amount	Time
1. PROGRAMS				
a. Intercity Bus Service Improvement Program	Funding for intercity bus service demonstration projects:	Section 71 (c) (2) (b), Statutes of 1979, (SB 620, Mills)		
	Ten projects selected for funding.		$1 million	FY 79-80
	Four new projects and three project extensions selected for funding.	Budget Act of 1980	$1 million	FY 80-81
	Twenty-six projects submitted for funding.	Budget Act of 1981	$1 million	FY 81-82
b. Intermodal Facilities Program	Funding to improve interfacing of two or more modes.	Chapter 460, Statutes of 1978, (SB 1750, Mills)		
	18 projects selected for funding.		$ 5,918,000	Funds must be encumbered by January 1, 1982
	Seven intermodal interface projects selected for funding.	Section 61, Chapter 161, Statutes of 1979, (SB 620, Mills)	$ 2,891,995	Funds must be encumbered by June 28, 1982
	Funds appropriated to California Transportation Commission for discretionary allocation. In 1980, six projects totaling $3.4 million were selected and allocated funds . Five additional Projects were allocated funds by the Commission from the State Highway Account under Article XIX.	Section 62, Chapter 161, Statutes of 1979, (SB 620, Mills)	$ 5 million	Funds must be encumbered by June 28, 1982

Table 1 (Continued)

Program/Resource	Explanation	Funding Source	Funding Amount	Time
	Funds appropriated to the Department and allocation made by the California Transportation Commission. Five projects have received funding.	Budget Act of 1980	$ 5 million	Funds must be encumbered by June 30, 1981
	Funds appropriated to the Department and allocations made by the California Transportation Commission.	Budget Act of 1981	$ 5 million	Funds must be encumbered by June 30, 1982
c. Roadside Bus Facilities Program	Authorized use of up to $2 million in the State highway funds annually, with additional funds availabe for park-and-ride lots.	Statutes of 1979, (SB 620, Mills)		Funds available each fiscal year
		SB 807 (Montoya)	$ 1,200,000 spent for park-and-ride lots.	FY 79-80
			$1,500,000 spent for park-and-ride lots.	FY 80-81
			$2,000,000 to be spent for roadside bus facilities (estimate).	FY 81-82
d. Highway Patrol "On-Terminal" Inspection Program	Inspections are broken into three types: A--buses with PUC/ICC operating authority B--buses not holding PUC certificate (e.g., private organizations) C--factory buses	California Vehicle Code § 34501.c Chapter 615, Statutes of 1980 (AB 496, Thurman)	$ 152,000 (Type A buses only)	FY 81-82

Table 1 (Continued)

Program/Resouce	Explanation	Funding Source	Funding Amount	Time
2. RESOURCES a. Private intercity Transportation carriers in California b. Public transit intercity services (some with private carrier contractors)	Twenty-six certificated carriers currently provide fixed-route intercity bus service. Fifty-three public intercity carriers provide service. Nearly 200 certificated carriers provide charter Party service. Approximately 12,000 privately owned vehicles are used to provide public transportation in California.	Private: No direct public subsidization Public carriers: Federal, State, and local funds	~~0~~	Continuous
c. Roadways in California	In excess of 16,000 miles exist as part of the State Highway system, and are available for use by intercity bus carriers.	Federal, State, and locate expenditures	$ 16,000,000,000	June 1, 1912-June 30, 1980

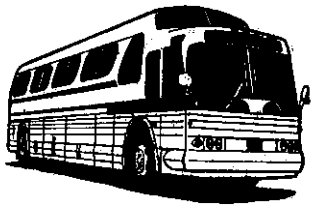
Funds are also available for fringe area and transportation corridor parking facilities, where passengers can assemble, leave their cars, and continue their trip by carpool, buspool, transit, or intercity bus service.

Highway Patrol "On-Terminal" Inspection Program. The California Highway Patrol inspects buses used in for-hire transportation in California.

Resources

Private Intercity Bus Transportation Carriers in California. Future expanded service could be provided by the private sector without extensive public subsidies. Private transportation providers possess the knowledge, experience, and equipment to efficiently provide service.

Roadways in California. California roadways connect major industrial and population centers, as well as providing access to rural, isolated communities. The State's investment in these roadways ($22 billion since 1912) can be preserved through continued maintenance and efficient use. The intercity bus transportation system operates over these roadways.



RECOMMENDED LONG-TERM STATE ACTIONS (See Table 2)

Regulatory Reform of California Intercity Bus Industry

Regulatory reform of the intercity bus industry is necessary to restore competitive parity for intrastate carriers following federal regulatory reform. Should the federal government not proceed rapidly with regulatory reform, the State will do so independently based on the following reasons:

Table 2

Recommended Long-Term State Actions

Proposal	Explanation	Funding Range*	Time
A. Regulatory Reform of California Intercity Bus Industry	Regulatory reform of the California intercity bus industry following precepts of efficiency and increased service.	(Staff support)	FY 82-83
B. Basic State Intercity Bus Network Service Subsidies	Limited intercity bus service subsidies for gaps on Basic State ntercity Bus Network.	$40,000–$2,000,000 annually (includes revenues estimate)	Begin: FY 82-83 Duration: Continuous
C. Intercity Bus Service Improvement Program	Continuation of existing program for intercity bus service demonstration projects.	$1-3 million annually (includes revenue estimate)	Begin: FY 79-80 Duration: Continuous
D. Full Mobility (accessible) Intercity Bus Program	Fully accessible (lift-equipped) intercity buses operation in major California travel corridors.	$60,000–$2,000,000 annually	Begin: FY 82-83 Duration: Continuous
E. Transportation Systems Management	Efficient use of existing transportation resources at State's disposal; including traffic engineering, regulatory pricing, management, real property, and other actions and resources to develop and enhance intercity bus service.	(Staff support)	Continuous
F. Intercity Bus Transportation Planning	Continuation of dynamic intercity bus transportation Planning process.	(Staff support)	Continuous

*Unless indicated, amounts do not Include administration costs (personnel).

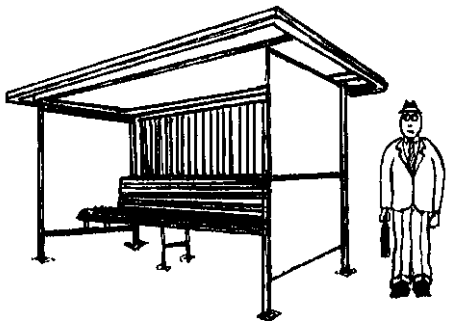
No evidence of need for public intervention. The economic rationale adopted at the inception of intercity bus regulation has been shown to be not applicable to actual service practice (e.g., absence of economies of scale).

Deregulated competitive intercity transportation market. Intercity bus service is the only remaining fully regulated transportation mode. It must compete in a deregulated market.

Regulatory bureaucracy. The regulatory process has evolved into a slow, cumbersome, costly complexity of rules, procedures, and litigations.

Public benefits. Public benefits of regulatory reform of the intercity bus market include:

- Lower costs for consumers.
- Greater consumer choice.
- Rational resource allocation and pricing.
- Increased insurance and safety requirements.



Salient elements of proposed State regulatory reform include the following:

Market entry. Ease of market entry to promote beneficial competition and increased service.

Market exit. Relaxed exit restraints to enhance competition and encourage market entry.

Fares. A zone of rate flexibility.

Insurance requirements. An increase in the minimum level of insurance responsibility.

Safety. Increased safety standards and inspections as a prerequisite to market entry.

Safety. Increased safety standards and inspections as a prerequisite to market entry.

State preemption. Coordinated action by federal and State government to compensate for overlapping regulatory jurisdiction within California.

Basic State Intercity Bus Network Subsidies

The State interest requires continued intercity bus service on the Basic State Intercity Bus Network, regardless of the regulatory environment (see Figure 7.6). Market subsidies will be needed for gaps in Network service. The costs of maintaining service on the Network will vary, due to the extent of service deficiency and the cost of providing service. Minimal revenues will be derived through the State's program because Network gaps are usually caused by low or negligible current patronage.

Intercity Bus Service Improvement Program

The existing intercity bus demonstration program for new, innovative services must continue. The Program has been funded at $1 million annually over the past three years. However, annual applications exceed available funding and carrier operating costs are increasing. The Program should continue independent of regulatory reform. Carriers are hesitant about implementing new and innovative services to accommodate latent service demands. Based on the Program's experiences during the previous funding cycles, contract funding amounts anticipate a 20 percent revenue return.

Full Mobility (Accessible) Intercity Bus Program

Funds are needed to implement handicapped accessible (lift-equipped) intercity bus

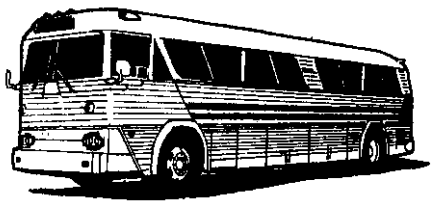
service in major California travel corridors. Private carriers are not now required to accommodate wheelchair-bound patrons. Hence, few intercity bus services are available for use by the handicapped. It is proposed that the State provide subsidies to carriers for the cost of initial capital to retrofit equipment for fully accessible service.

Transportation Systems Management

Resources at the State's disposal could be more efficiently used to improve intercity bus transportation through innovative planning, implementation, and analysis. This would maximize returns on some State investments.

Intercity Bus Transportation Planning

The intercity bus planning process is a dynamic process. Close monitoring of regulatory reforms will allow State policies and funding programs to adjust to new conditions in a timely manner. The planning process must include the following:



- program planning, evluation, and revision.
- plan revisions (updates)
- data collection (service changes, mapping, industry trends, etc...)
- special planning studies (e.g.; fare elasticity experiments and on-board surveys).

RECOMMENDED STATE ACTIONS FOLLOWING REGULATORY REFORM
(See Table 3)

Five-Year Emergency Transition Program

A five-year transition program of funding is needed to ease the change to the new service environment resulting from federal regulatory reform. The program should consist of the following elements:

Table 3
Recommended State Actions Following Regulatory Reform
(Five-Year Emergency Transition Program)

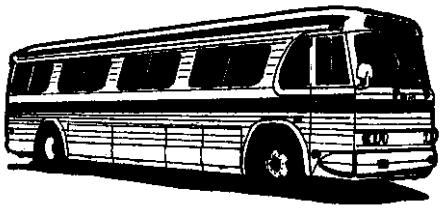
Proposal	Explanation	Funding Range*	Time
A. Service Subsidy Program	A five-year transition program of funding to support service routes lost following regulatory reform of intercity bus industry.	$850,000–$1,100,000 annually	Being: FY 82-83 Duration: Five Years
B. Consumer Information Assistance	Service, route, schedule, fare and miscellaneous information to be provided for the public. (Toll-free information phone number).	$38,000–$500,000 annually	Begin: FY 82-83 Duration: Five Years
C. Intercity Bus Transportation Safety	Additional funding for the California Highway Patrol to conduct safety inspections of new carriers entering the market. (Proposed costs would be adequate for 120-240 additional terminal inspections.)	$45,000– 91,000 annually (State costs can be returned by user fees)	Begin: FY 82-83 Duration: Five Years
D. Intercity Bus Service Development and Technical Assistance Program	Technical assistance for small and inexperienced intercity bus carriers that are entering the industry. Assistance may include guidance in regulatory compliance, maintenance and safety, management and contracting.	$150,000– 200,000 annually (includes estimated revenue credit)	Begin: FY 82-83 Duration: Five Years

*Unless indicated, amounts do not Include administration costs (personnel).

- Service subsidies
- Consumer information assistance
- Safety inspections for new carriers
- Technical assistance for carriers.

Service subsidies. Funds will be used to subsidize limited service over existing routes which lose all service as a result of federal regulatory reform. Minimal revenue will be derived because most routes which lose service currently have negligible patronage.

Consumer information asistance. Funds will be needed to provide the public with information concerning service changes which will occur. Most terminals are controlled by the major carriers. New service providers will use other embarking and disembarking locations which the public will need to be informed of. A centralized information source would help ameliorate this problem. No revenue will be derived.



New carrier safety inspections. Regulatory reform will increase the number of carriers providing service in California. The California Highway Patrol will need additional funds to ensure the continuation of safety inspections for new carriers entering the market. The increased cost of inspections for new carriers can be offset by user fees to be paid by new market entrants.

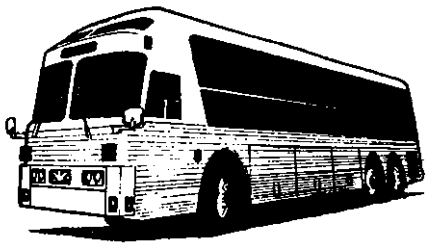
Technical assistance for carriers. Development and implementation of new and improved intercity bus service following regulatory reform can be assisted through dissemination of technical information to potential intercity bus service providers. New private carriers need to be informed of potential service markets and necessary actions which must be taken as a prerequisite to service implementation (for example, regulatory certification requirements). New carriers will also

need technical assistance for routing, scheduling, maintenance, and other operational practices. By coordinating this assistance, the State will encourage the private sector to provide needed intercity bus services following regulatory reform. Carriers will also be encouraged to provide innovative, competitive services in major travel corridors. Nominal fees will be collected from carriers who solicit State technical assistance.

PLAN IMPLEMENTATION

Caltrans will immediately begin the process of implementing the State Intercity Bus Plan through legislative proposals and Departmental budget requests. Although the Department recommends the specific actions previously mentioned, the Legislature also has the alternative of taking no action. Should federal regulatory reform be enacted without concurrent State action, California carriers could be placed at a serious, competitive disadvantage. This imbalance could undermine and threaten service continuation by these California carriers.

Regulatory reform at any governmental level (federal and/or State) will undoubtedly reduce bus service in some areas of the State. Without State assistance through mechanisms such as the Five-Year Emergency Transition Program, local and regional governments may have to consider providing financial assistance to retain existing services.



As directed by the Legislature, the Department sets forth alternatives for future State involvement in the intercity bus area. It is essential that the State expeditiously implement the State Intercity Bus Plan. Intercity bus service is an essential energy-efficient component of the State's transportation system. As such, intercity bus transportation must be maintained and enhanced to ensure a clean, safe, and prosperous California for our future.

1. Introduction

The intercity bus industry provides Californians with a variety of economical and efficient transportation services. Evolving from the touring car companies of the early 1900s, today's intercity bus system is comprised of many carriers which provide essential intercity service to both rural and metropolitan communities, using equipment ranging from vans to full-size intercity coaches.

The unique geography of the State has been significant in the development of California's intercity bus system (see Figure 1.1). Transportation development has been restricted by the mountainous terrain found in many regions of the State. As population centers grew in the more amenable areas, a system of State and interstate highways developed to serve these locations. Bus service developed along with the highway system, and utilized highway corridors to provide transportation along the fastest, most direct routes.

Intercity bus service is one element of the three-tiered public transportation system consisting of local, regional, and intercity transportation (see Figure 1.2). Local transit provides publicly owned and operated transportation within a community. This service provides access to local goods and services (for example, the home-to-work trip, shopping, and visits). Regional transportation systems provide service to residents of outlying rural areas that need transportation to goods and services available only in larger cities. Once again this service is often publicly owned and operated. Intercity transportation provides service between two or more cities, towns, or residential clusters

Fig. 1.1 California Topographical Features

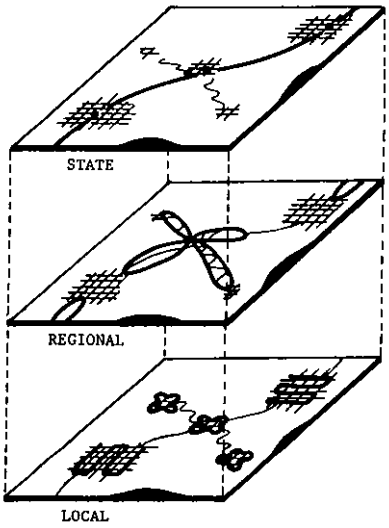


Fig. 1.2 Public Transportation Service Hierarchy

that are neither adjoining nor within the same or contiguous urbanized areas as defined by the U.S. Bureau of Census.

Public intercity travel options include passenger rail (Amtrak), commercial air, and intercity bus. The most widely available and frequently used intercity public transportation alternative is the intercity bus. Intercity buses carry more passengers nationwide than rail and commercial air carriers combined, and at a lower cost. In California, intercity buses carry 14 million passengers annually and provide service to over 500 service points throughout the State. This is ten times the number of locations served by commercial airlines, and twelve times the number of locations served by passenger rail.

PLAN AUTHORIZATION

At the request of the Director, the California Department of Transportation began addressing the issue of intercity bus transportation in late 1980 through an UMTA Section 8 Intercity Bus Study. The Legislature directed the Department of Transportation to complete its intercity bus plan by March 1, 1982. This plan was directed to contain alternatives for future State involvement in the intercity bus area, projected State capital and operating costs and revenues for each of these alternatives, and a recommended approach for future State action.[1]

Fiscal authority for the Plan was granted by Chapter 510, Item 174 of the 1980 Budget Act. Chapter 99, Item 266-001-046, of the 1981 Budget Act extended funding through Fiscal Year 1981-82. These funds were allocated from the Transportation Planning and Development Account.

Program authority for the Plan is granted by Government Code, Chapter 1, Article 3, Section 14030. This allows for the planning, coordination, and development of various public and private transportation entities in support of Statewide and regional goals.

LEGISLATIVE DIRECTION

The California Legislature has stated that the diversity of the State's physical and social environments require the consideration of a variety of transportation solutions in different areas.[2] Intercity bus service is one answer for meeting Statewide intercity transportation needs. A number of State transportation goals are met by intercity bus transportation, including:

- provision of adequate, safe, and efficient transportation facilities and services at a reasonable cost,
- transportation for the disadvantaged, elderly and young, and
- transportation for convenience and enjoyment in shopping, school, cultural and business pursuits, and leisure-time travel.[3]

Since intercity bus service transcends local and regional boundaries, planning activities are most effective at the State level. The California Department of Transportation has been designated by the Legislature as the coordinating agency for planning and development of transportation in the State.

FEDERAL LEGISLATIVE ACTIONS

The development of a State intercity bus plan is particularly timely in regard to the issue of federal regulatory reform. The U.S. House of Representatives passed the Bus Regulatory Reform Act of 1981 on November 19, 1981. The measure now proceeds to the Senate for consideration in the spring of 1982. The bill includes provisions for easing market exit and entry requirements of interstate bus carriers, along with preemption of State regulatory authority over the intrastate operation of interstate carriers.

The State must be aware of, and prepare for, possible service disruptions that may result following enactment of this bill. The State Intercity Bus Plan explores this problem and provides the basis for the development of future State intercity bus programs.

FUNDING PROGRAMS

Over the years, programs representing a substantial outflow of public money have been budgeted without the direction and

[1] 1981 Budget Act, p. 62.

[2] Government Code §14000(b), Statutes Relating to the California Department of Transportation, (1979), p. 29.

[3] Government Code §14000(c).

coordination afforded by a planning document. Major legislation has included SB 1879 (1976), SB 827 (1977), SB 1750 (1978), SB 807 (1979), and SB 620 (1979). Together, these bills allocated funds for:

- feeder bus services between rail and population centers
- station improvements
- intermodal transfer facilities
- roadside bus facility improvements
- financial support for intercity bus services

The Transportation Development Act of 1971 has also provided evidence of the State's commitment to improved public transportation. Federal funds for over 100 separate programs have been available as additional financial resources for bus services. The 1981-82 Legislative Analyst's Report has also indicated the importance of identifying and coordinating funding sources, stating that long-range plans for the expenditure of transit funds are "often nonexistent or poorly documented".[4]

PUBLIC PARTICIPATION

Public involvement is an encouraged and desired part of all planning undertaken by the Department of Transportation. It is Caltrans' policy to ensure that "affected or interested communities and special interest groups be made aware of Department plans and activities and that a feedback mechanism is created to inform Caltrans of community comments, ideas, and concerns".[5]

Advisory Committees

In March 1980, the Director formed two advisory committees: the Policy Advisory Committee and the Technical Advisory Committee. These advisory committees have convened approximately every six months, offering guidance and counsel to Caltrans' staff and management.

The Policy Advisory Committee represents the following groups:

- Department of Consumer Affairs
- Department of Economic and Business Development
- Transportation Unions
- County Supervisor's Association
- League of California Cities
- Department of Rehabilitation
- Department of Aging
- League of Women Voters
- California Transportation Commission
- Department of Parks and Recreation
- Department of Veterans Affairs
- Assembly Committee on Transportation
- Senate Committee on Transportation

California's intercity bus industry, regulatory agencies, and organizations associated with bus travel are represented through the Technical Advisory Committee. These representatives include:

- California Public Utilities Commission
- San Francisco Bay Area Transportation Terminal Authority
- California Highway Patrol
- Large interstate carriers
- Medium intrastate carriers
- Small intrastate carriers
- Publicly-operated intercity carriers

Issues addressed by the two advisory committees have included:

- Regulatory reform and its effects on service levels, passenger safety, market exit, and market entry
- Government assistance and subsidy
- Competition between public and private intercity bus carriers
- Station facilities and handicapped accessibility
- Energy efficiency
- Insurance requirements
- Consumer information

Bus Industry

Beyond the cooperation received from its Technical Advisory Committee, Caltrans has developed ongoing contacts with all 26 certificated private carriers providing intercity bus service in California. These operations have been a valuable source of information regarding routes, schedules, station facilities,

[4] 1981-82 Legislative Analyst's Report, p. 365.
[5] policy and Procedure Memorandum No. P80-6.

and general operations. Thirteen of these intercity bus operators have received demonstration funds from Caltrans' Intercity Bus Service Improvement Program. Monitoring information generated by this program augments the Department's data base. In addition, passenger surveys were conducted on 12 California intercity bus routes in February 1981.

State and Federal Agencies

The State Intercity Bus Plan is both a cooperative and coordinated effort. Within Caltrans, information from the Division of Aeronautics, Division of Transportation Planning, and Division of Mass Transportation (involving the Offices of Rail Services, Technical Services, and Financial Programs and Analysis) has been gathered and coordinated. Data used to develop the Plan have also been useful in the development of the California Intermodal Facilities Plan to be published in March 1982.

The California Public Utilities Commission has been a valuable source of information, as has the California Bus Association.

At the national level, Caltrans has been a member of various Transportation Research Board Committees involving rural and intercity bus transportation, as well as a contributor to the National Cooperative Highway Research Program's Intercity Bus Transportation Planning project.

Currently, the Department is preparing a summary and analysis of intercity bus travel and passenger travel data under the Federal Highway Administration's Cooperative Highway Planning and Research Program. Contacts with the Urban Mass Transportation Administration and the Interstate Commerce Commission have also been vital in the development of this Plan. The American Bus Association has been supportive of the Caltrans effort in preparing this Plan, and has contributed much to the clarification and analysis of intercity bus issues.

Local Governments

Local interests have played an integral role in the development of the State Intercity Bus Plan. Two meetings have been held with Regional Transportation Planning Agencies (RTPAs) to incorporate their ideas into the Plan.

The first meeting was held on July 16, 1981 in Sacramento. An early draft of A Prospectus for Change in the Intercity Bus Industry (the first element of the State Intercity Bus Plan) was the subject of discussion. Major concerns expressed by participants included:

- The economic and philosophic justification for regulatory reform.
- The need for a detailed analysis of the two Congressional proposals for regulatory reform.
- Concern about competition between private and public carriers for farebox revenues.
- Concerns about public subsidies and available funding sources for intercity bus operations.
- Accessible service for the physically disabled.

A second meeting of RTPAs was held January 26, 1982 in Sacramento. This meeting was held to allow local comment on a draft of the State Intercity Bus Plan. Major concerns expressed by RTPA staff and corresponding responses are as follows:

- The Basic State Intercity Bus Network should include California's Interstate Highway System which sustains a large percentage of California bus traffic.

The Interstate Highway System provides for the essential movement of people and goods within California. For this reason, the Basic State Intercity Bus Network has been revised to include all interstate highways and other major state travel corridors.

- The Basic State Intercity Bus Network should allow for travel to California's neighboring States.

The Basic State Intercity Bus Network has been extended to the Oregon Border (via U.S. 199, I-5, and S.R. 139), to the Nevada Border (via U.S 395, I-80, U.S. 50, and I-15), to the Arizona Border (via I-40, I-10, and I-8), and to the Mexico International P.O.E. Border (via I-5 and S.R. 111).

- Some roads designated on the Basic State Intercity Bus Network are inappropriate for bus travel due to poor geometric standards (S.R. 175 between Lakeport an Hopland) or climatic conditions (S.R 4 between Markleeville and Angels Camp).

The Basic State Intercity Bus Network has been rerouted to avoid these locations.

- California parks and recreational areas are high-traffic generators and should be included on the Basic State Intercity Bus Network.

The Basic State Intercity Bus Network has been expanded to include National and State parks with an annual attendance of more than one million visitors. Chapter 7 includes a list of the 15 State and 6 National parks designated as principal locations.

- A segment of U.S. 101 between Willits and Fortuna has been left off the Basic State Intercity Bus Network. This effectively cuts off Humboldt County from the San Francisco Bay Area, an important economic center for that area.

U.S. 101 is the major North-South travel corridor for Northern California coastal communities. The Basic State Intercity Bus Network has been revised to include U.S. 101 between Willits and Fortuna.

- Some cities with populations greater than 5,000 are not included on the Basic State Intercity Bus Network.

After examination of the newly released 1980 census data, 15 cities have been added to the list of principal locations, as well as 12 new urbanized areas.

- How will the State Intercity Bus Plan be implemented?

The Plan will be implemented through departmental legislative proposals and budget requests. The Legislature has the option of not funding any action proposed. However, federal regulatory reform of the intercity bus industry may result in some service losses in rural areas.

- Why were funding ranges given for the proposed programs?

The Legislature specifically asked for alternative actions. Funding ranges allow the Legislature to decide the desired emphasis to be placed on any one program.

- Can the Plan provide a more concrete estimate of the number of new intercity bus carriers expected to enter the market under regulatory reform of the industry?

In Chapter 9, the Plan illustrates the potential funding range needed to provide on-terminal safety inspections for zero to 125 new operators. If a parallel were to be drawn with the case of deregulated commercial airlines, the intercity bus industry in California (currently equal to 79 carriers) might triple in size (an additional 158 carriers). However, after five years, two-thirds (or 53) of the preregulatory reform carriers, and one-half (or 79) of the new carriers would likely discontinue service. This could result in a total of 105 intercity bus carriers at the end of five years (or 26 new carriers). However, commercial airlines are not directly comparable with intercity bus services. Any conclusions drawn from the airline experience must be used cautiously.

GOALS, OBJECTIVES, AND POLICIES

A goal is defined as "the end toward which effort is directed; it is general and timeless".[6] The five goals which follow reflect values articulated in the Department of Transportation's 1981-82 Policy Direction Statement. They are:

Goal 1: To provide all Californians with safe, clean, affordable, comfortable, convenient, and accessible intercity transportation;

Goal 2: To provide Californians with an intercity transportation system that efficiently uses available financial, personnel, and energy resources;

Goal 3: To provide opportunities for a11 segments of California society to become involved in State decisions regarding the intercity transportation industry;

Goal 4: To provide intercity transportation service that enhances and protects California's environmental quality;

[6] CTC, Regional Transportation Planning Guidelines, May 1978, P.7

Goal 5: To provide innovative intercity transportation service that considers California's present and future needs.

Objectives further refine the planning effort by focusing the values found within each goal statement into definite actions. The definition of an "objective" is:

> A completed action or a point to be reached; it is capable of both attainment and measurement. Objectives are successive levels of achievement in the movement toward a goal, and should be tied to some time-specific period for implementation programs.[7]

The following objectives are sought by the Department:

> OBJECTIVE ONE: Caltrans will develop and adopt a means to identify the State's role in intercity bus travel.
>
> OBJECTIVE TWO: Caltrans will adopt a position on regulatory reform of the intercity bus industry at both federal and State levels.
>
> OBJECTIVE THREE: Caltrans will encourage the private sector to take the lead role in providing the majority of bus services having intercity travel significance.
>
> OBJECTIVE FOUR: Caltrans will maximize use of available designated funding sources for intercity bus programs.
>
> OBJECTIVE FIVE: Caltrans will seek and encourage public participation in the development of the State Intercity Bus Plan.

Policies set parameters for implementing objectives. As defined by the California Transportation Commission, a policy is:

> a course of action selected from among alternatives (with given conditions) to guide and determine present and future decisions on development and implementation matters.[8]

The Department has adopted the following policies with regard to intercity bus service:

> POLICY ONE: A network of intercity bus routes having statewide significance will serve as the basis for State assistance.
>
> POLICY TWO: The State will expedite regulatory reform of the intercity bus industry in California. The State's effort shall be compatible with federal actions in this area.
>
> POLICY THREE: The Department will propose legislation for State funding of a five-year emergency transition program to support lost service following regulatory reform of the intercity bus industry.
>
> POLICY FOUR: Private providers of intercity bus service shall be encouraged to participate in all public intercity transportation subsidy programs to the maximum extent feasible.
>
> POLICY FIVE: The Department will continue studying and planning for the support and guidance of intercity bus service in California.

The State Intercity Bus Plan discusses major issues facing intercity bus industry including the industry's financial posture, passenger characteristics and problems, and regulatory reform of the bus industry. The Plan also defines a network of intercity bus routes having Statewide significance to be known as the Basic State Intercity Bus Network.

The State Intercity Bus Plan includes the following chapters:

> Chapter Two: CALIFORNIA'S INTERCITY BUS SYSTEM -- A discussion of the history and development of the intercity bus industry, including the characteristics of today's system.
>
> Chapter Three: FINANCES OF INTERCITY BUS TRANSPORTATION -- An analysis of the current financial posture of the intercity bus industry.
>
> Chapter Four: USER ASPECTS OF INTERCITY BUS TRANSPORTATION -- A profile of the characteristics of intercity bus users, including user needs and problems.

[7] ibid.
[8] ibid.

Chapter Five: PUBLIC ASPECTS OF INTERCITY BUS TRANSPORTATION -- A discussion of a variety of issues of public concern and interest, including energy, environmental quality, modal integration, economic growth, and the efficient use of available resources.

Chapter Six: THE STATE ROLE -- A discussion of current State participation with the intercity bus industry.

Chapter Seven: THE BASIC STATE INTERCITY BUS NETWORK -- A presentation of the criteria and rationale for the development of the Basic State Intercity Bus Network.

Chapter Eight: REGULATORY REFORM OF THE INTERCITY BUS INDUSTRY -- An examination of proposals for regulatory reform and of the key issues to be addressed in any regulatory reform policy.

Chapter Nine: STATE ACTIONS TO IMPROVE INTERCITY BUS TRANSPORTATION -- A description of State resources and actions to improve intercity bus transportation in California. Existing programs are described and issue-oriented programs are proposed.

A Technical Supplement has been published as a separate document. It includes a variety of detailed background material to supplement information found in this Plan.

In the following five chapters the intercity bus industry in California is portrayed in preface to the specific State actions this Plan proposes.

2. California s Intercity Bus System

The full spectrum of California's intercity bus transportation services is impressive by the magnitude, the variety and the quality of services offered. From its unpretentious beginnings, intercity bus transportation has grown into a multimillion dollar industry carrying more persons annually than all other public intercity modes combined. As a regulated industry, it has grown and produced a comprehensive service network throughout the State of California.

This chapter traces the roots of California's intercity bus system and describes the features of intercity bus services now operating in the State.

CALIFORNIA INTERCITY TRAVEL MODES

The intercity traveler has three public transportation options: passenger rail (Amtrak), commercial air service or intercity bus. Each mode can complement the other and, in combination, they can contribute toward the creation of a balanced State transportation network.

Each mode uses different technologies, networks, and service strategies to meet the varied needs of travelers. Modes may compete in some corridors where service points, fares, and speeds are similar. For the most part, however, the characteristics of each of the three intercity modes are dissimilar (see Table 2.1).

HISTORICAL BEGINNINGS OF CALIFORNIA BUS SERVICE

The first passenger stage line in California is generally credited to James E. Birch. He operated a Mexican rancho wagon during the summer of 1849 between Sacramento and Sutter's Mill at Coloma. For a fare of two ounces of gold ($32), miners and others traveling to the Sierra foothills could make this fifty-mile ride to Coloma or to several intermediate mining centers. Within a few years, there were over a dozen stage lines in California, including runs between San Jose and San Francisco (nine-hour trip), Los Angeles and San Francisco (two trips per month), and many gold mining camps. Mergers of local stage lines followed, producing the profitable California Stage Company which operated 1,500 route miles in the State.[1]

Stagecoach service in 1874 is shown in Figure 2.1. The dynamic interplay between the railroads and the stage lines saw the stage line routes recede in the path of advancing railroad construction.

[1] Rolle, Andrew F., California: A History. New York: Thomas Y. Crowell Co., 1963, pp. 275 ff.

SOURCE: "Map of the Western States Showing the Express Routes of Well Fargo and Co., July 1874"

Fig. 2.1 Stage Lines of Wells Fargo and Co. in the State of California--July 1874

Table 2.1 Service Characteristics of Selected Intercity Public Transportation Modes in California

		MODE OF TRAVEL		
		Intercity Bus	Passenger Rail (Amtrak)	Commercial Air
System Characteristics	Number of timetable service points	500+	42	48
	Number of nonurbanized locations served	936	17	22
	Median population of all locations served	1,100	69,000	289,000
	Median distance between locations served (miles)[8]	7[1] 15[2] 19[3]	36	188
	Network miles	12,000	2,107	52,317[7]
	Average mode speed	46 MPH[4]	45 MPH[5]	520 MPH (jets)[6] 208 MPH (commuter non-jet)

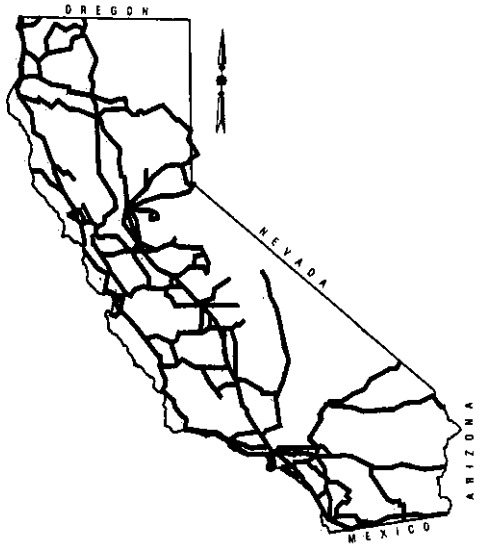
[1]Tariff points, shown on tariffs filed with the California Public Utilities Commission
[2]Timetable service points, shown on published timetables distributed to the general public
[3]On-line commission agencies and company terminals where tickets are sold
[4]Range: 38-51 MPH
[5]Range: 39-54 MPH
[6]Does not include ground time for boarding and stopovers en route
[7]Includes route duplication
[8]Nonstop and express buses will skip locations

The railroads later incorporated the bus as a means of for-hire passenger conveyance, and recognizable motor bus transportation emerged early in this century. By 1929, bus service had extended to nearly every part of California (see Figure 2.2).

Just as the stagecoach companies had consolidated into larger systems, many smaller bus systems in California combined operating authorities to form today's two major networks: Trailways and Greyhound.

INTERCITY BUS VEHICLES

The first buses were little more than touring cars pressed into for-hire service. Some were lengthened and outfitted with additional rows of seats and doors. By the 1930s, coaches were fully enclosed with a center aisle and single entry door (the "parlor car" design). Double-deck sleeper compartment buses were also introduced during this period. In the decade of the fifties, air conditioning and improved suspension systems added new comfort to bus travel. High-level "Scenicruisers" and "Vista-Liners" offered passengers vast improvements in view and comfort.



SOURCE: American Automobile Association, "Established Motor Bus Routes in the United States", 1929

Fig. 2.2 Established Motor Bus Routes 1929

Today, the industry is limited to a few coach styles, primarily the products of the manufacturing arms of the two intercity giants, Greyhound and Trailways. However, a growing number of Canadian buses are being used in the United States. These corporations are a primary source of the used bus equipment for smaller carriers. Figure 2.3 illustrates some of the intercity coaches manufactured over the past 30 years.

Maximum intercity coach dimensions are specified by State law. In California, the Vehicle Code limits the size of a bus to 40-ft. long, 102-in. wide, and 13-ft., 6-in. high (exceptions are allowed for articulated or double-deck buses). However, legal bus sizes are not uniform among the states, and for this reason the vehicles used by interstate carriers must conform to the most restrictive standard.

Bus seating layouts in parlor-type motor coaches generally employ all forward-facing seats. A practical seating limit in a 40-ft. coach is based upon 13 rows of seats (with an aisle seat in the last row) and equals 53 seats. However, when the lavatory is added or greater legroom is desired, the actual seating layout results in fewer seats (Trailways "Eagle" has 46 seats, Greyhound "Crusader" has 43 seats).

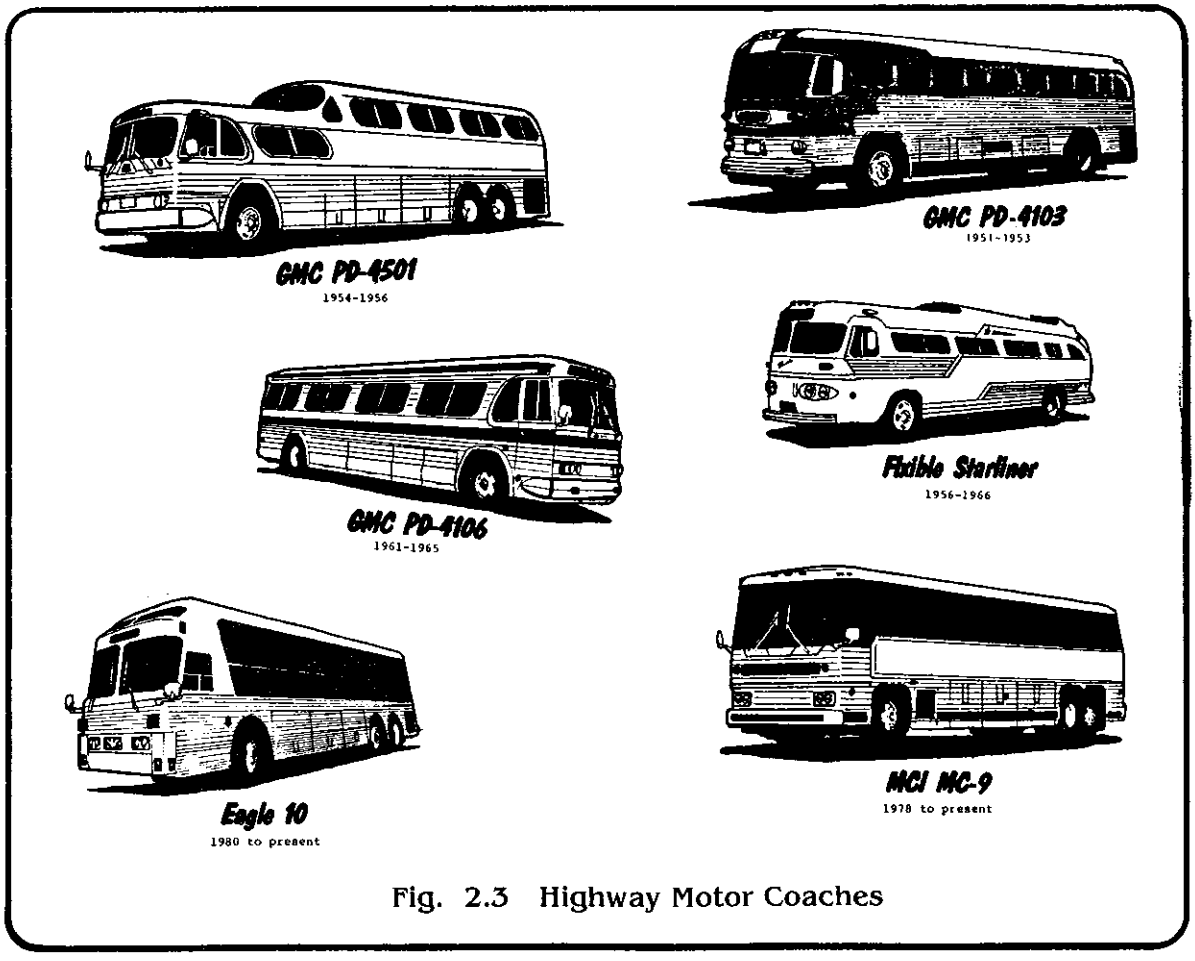


Fig. 2.3 Highway Motor Coaches

CHARACTERISTICS OF CALIFORNIA'S INTERCITY BUS SYSTEM

1982 Route Network

California's intercity bus system consists of 79 different carriers. Twenty-six of these operators hold certificates of Public Convenience and Necessity issued by the California Public Utilities Commission. Cities, counties, or joint powers authorities operate the remaining 53 services, some under contract with private firms.

In 1980, operators provided intercity bus service over 15,920 carrier network miles. Not counting route duplication among carriers, intercity bus services were available along a net of approximately 12,000 highway miles. The rural road mileage included within California's intercity bus system was about 15 percent of the total "available" rural road mileage. Figure 2.4 displays California's intercity bus service in 1982.

Greyhound Lines and Trailways together operated 61 percent of the total carrier route miles and served over 54 percent and 17 percent of the total State rural bus network miles, respectively.

In relation to the total statewide bus system, approximately 21 percent, or 3,353 carrier network miles, were publicly subsidized (see Figure 2.5). The Technical Supplement provides a listing of subsidized and unsubsidized route miles for California intercity bus carriers.

"Route miles" alone do not adequately describe the nature of bus service being offered. Bus frequencies and the local-express-nonstop service mix are important for denoting the quality of service along a highway.

Cities with Service

California's population of 20,000,000 persons is not uniformly distributed across the State. Major trade centers lie along a few major corridors, traced primarily by the Interstate Highway System. Figure 2.6 shows the Population Distribution of California.

The large interstate carriers have sought an early foothold in all of the larger populated regions of the State. California has good long-distance bus service to neighboring states, but it is apparent that each carrier perceives its common carrier obligation and the need to serve small, intermediate places quite differently.

Large population centers are important to the development of the routes and networks maintained by interstate bus carriers. It is not surprising that the two largest market centers are served by both Greyhound Lines and Trailways. Virtually every city over 150,000 population is served by both companies. Greyhound Lines serves nearly four times the number of tariff points as does Trailways. Trailways has focused its primary service on long-distance travel between large market centers.

Neither major carrier serves a distribution of city size similar to the total State size distribution. The State median population is a community of 272 persons. For Greyhound, the median service point is a city of 1,100 persons; for Trailways it is 4,450. (See Figure 2.7).

Figure 2.4

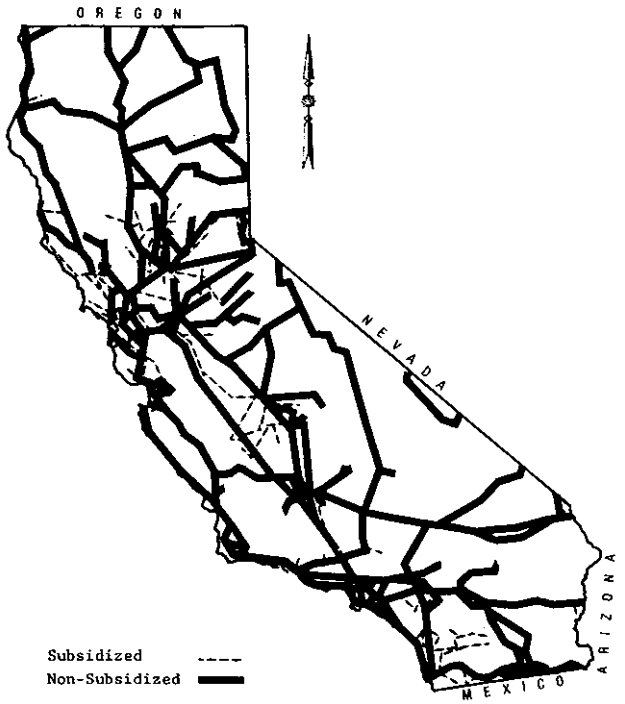


Fig. 2.5 Subsidized and Nonsubsidized Routes in California

Travel Characteristics

Travel on intercity bus is highly seasonal in nature. Figure 2.8 shows the passenger-miles carried by Greyhound Lines and Trailways over the last four years. Travel is typically its lowest in February and highest in August, a ratio of about 1:2. This seasonal imbalance represents a changing level of demand that requires periodic adjustment of schedules and employment of extra bus sections. In 1979, Greyhound Lines operated 33 million scheduled miles in California, but produced 53 million actual bus-miles during the same period. These excess miles represented 20 million bus-miles of extra sections, or 60 percent above scheduled miles.[2,3]

The petroleum export crises of the 1970s brought a reversal of the systemic downward slump exhibited by the intercity bus industry since World War II. Passenger-miles, number of passengers, and bus-miles operated by the two major carriers in California increased during the late 1970s, but were still less than the 1961 levels (reported by Greyhound) (Figure 2.9). Other carriers have reported similar increases, with charter services experiencing high demand. Intercity bus traffic volumes in 1980 are portrayed in Figure 2.10.

[2]Zelrick, R. C., "Comparison of Schedule Miles Operated in Public California". Presented as Exhibit C-38 before the California Public Utilities Commission in the Matter of Applications 57797 and 57939 at San Francisco, California on May 1, 1980.

[3] Rotenberg, Bernard, "Total State of California Comparison of mainline operating Statistics for 1967, 1978, 1979". Presented as Exhibit C-15 before the California Public Utilities Commission in the Matter of Applications 57797 and 57939 at San Francisco, California on April 30, 1980, p. 6.

Route Capacity

Regular route services can adjust capacity in several ways. The method used will depend upon the extent of the total service network, the availability of equipment, and the distribution of demand along routes:

- Change size of vehicle
- Adjust schedule frequency
- Add extra sections (additional buses)
- Employ turn-backs and short runs
- Change nonstop, express, and local service mixture

COORDINATION OF SERVICES

Whenever two or more carriers operate over identical or connecting routes, coordination or competition may result.

Examples of service coordination are:

- Time-integration of service schedules for transfers;
- Joint use of stations;
- Feeder and trunkline integration;
- Joint fare discounts and through-ticketing;
- Full accessibility to handicapped persons using accessible feeder systems;
- Coordination with related transportation services such as local transit and paratransit, taxis, car rental agencies, airport limousines, convenient auto parking lots, and regional rail operations.

Service fragmentation, on the other hand, may produce:

- Duplication of routes and service points;
- Service targeted for identical markets;
- Separated stations within same communities or activity centers;
- Disjointed service times making transfers difficult or necessitating excessive layover times;
- Separate fare collection and ticketing systems that result in multiple patron payments of exact fares and lack of through-ticketing.

Coordination of services between private carriers and public transit is often difficult to achieve. The following are some of the reasons offered by carriers:

Financial Interests

Competition in limited markets and uncertainty regarding a coordinating carrier's ability to perform his services reliably discourages alliances and favors independent operations.

Key Market Priorities

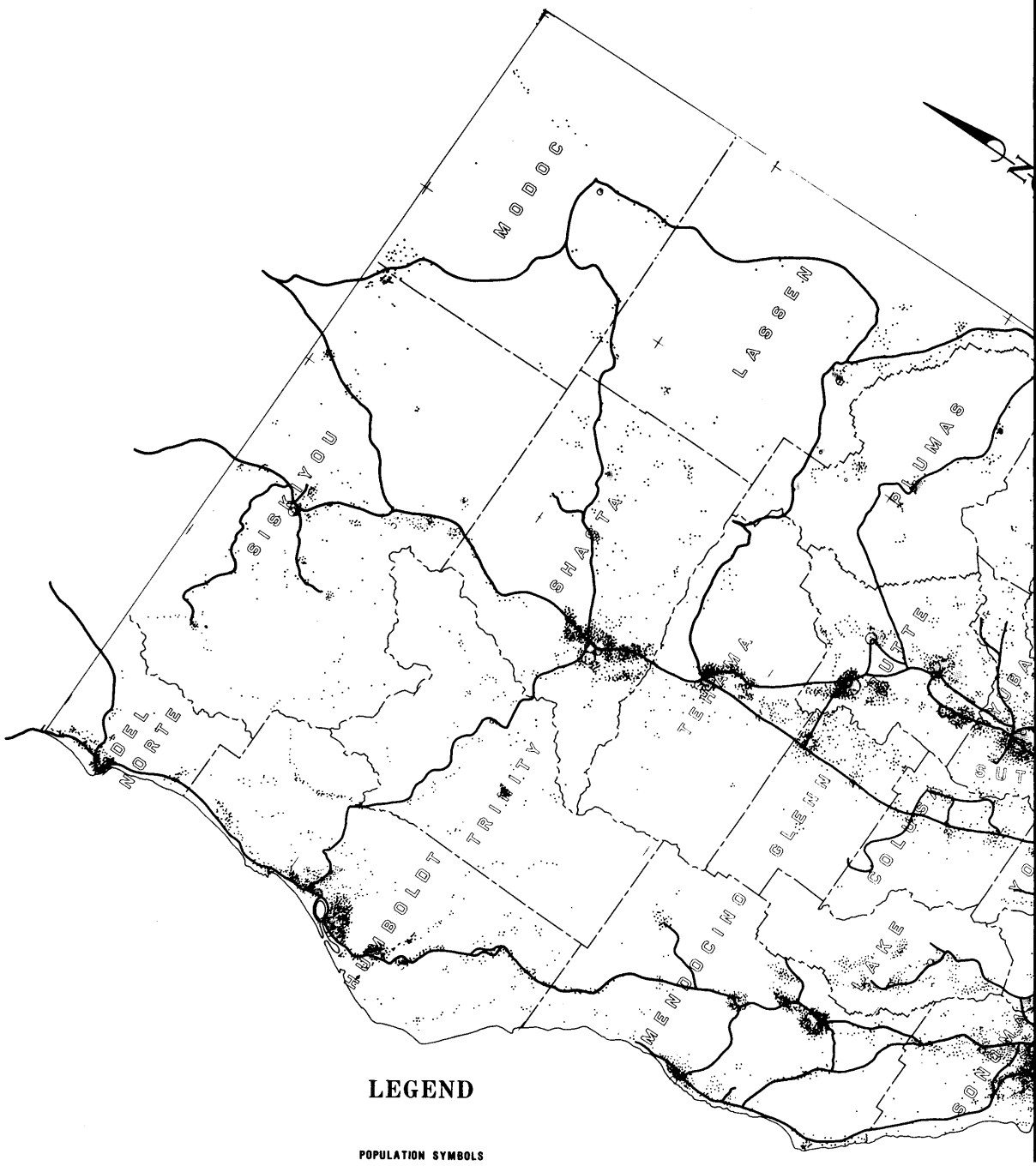
Long-distance bus services usually depart and arrive at major market centers at the most favorable times of day. Consequently, departures and arrivals at many intermediate points may occur at inconvenient boarding times, such as at two or three o'clock in the morning. Many public transit operators only offer service during and between peak periods with little, if any, nighttime or weekend service.

Ripple Effect of Network Scheduling

Changes in the operation time of one bus can require changes in connecting schedules throughout a region (perhaps over several states).

Changing Demand Patterns

Long-distance travel patterns tend to be seasonal, as in the annual winter "migration" to and from Florida. To meet the needs of travelers at various points in a large system network, equipment may need repositioning. Such considerations will be of little concern at a single rural service point. Yet, the provision of service to that point may be subject to seasonal network considerations in, perhaps, another state.



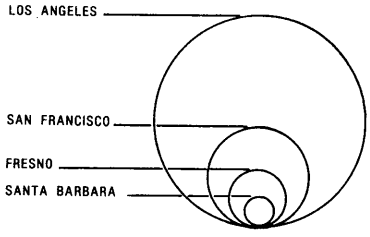
LEGEND

POPULATION SYMBOLS

ONE DOT REPRESENTS FIFTY PERSONS IN RURAL PLACES

MILITARY BARRACKS IN RURAL AREAS

URBAN



INTERCITY BUS ROUTES WITH POPULATION DISTRIBUTION

One dot represents fifty persons in rural places

10 0 10 20 30 40 50 60 70 80 90 100
Miles

10 0 10 20 30 40 50 60 70 80 90 100
Kilometers

Figure 2.6

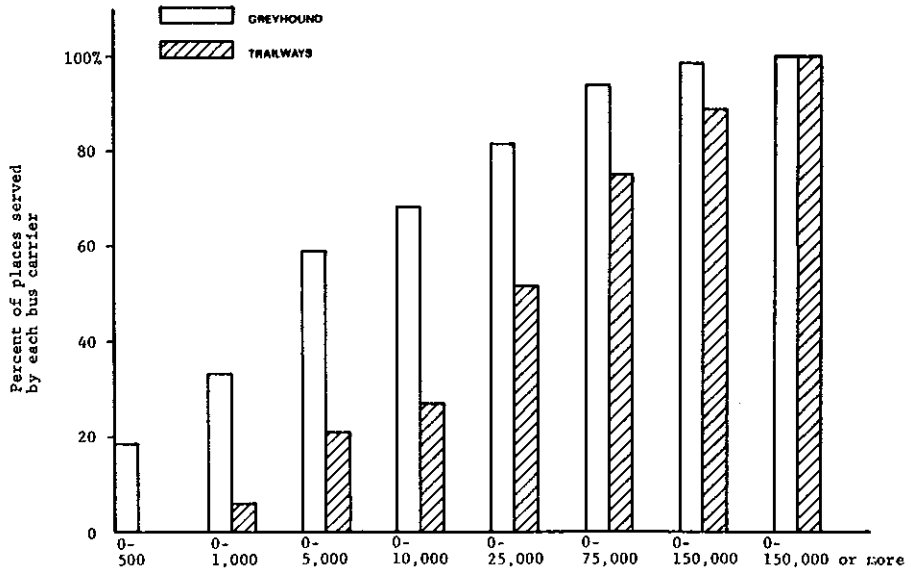


Fig. 2.7 Distribution of Places Listed in Published Schedules of Trailways and Greyhound

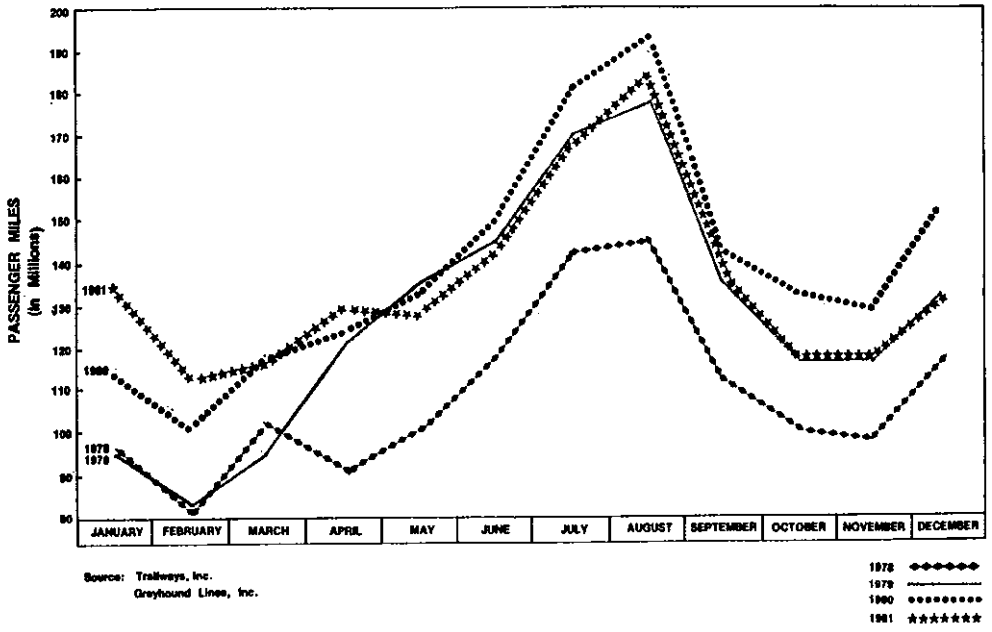


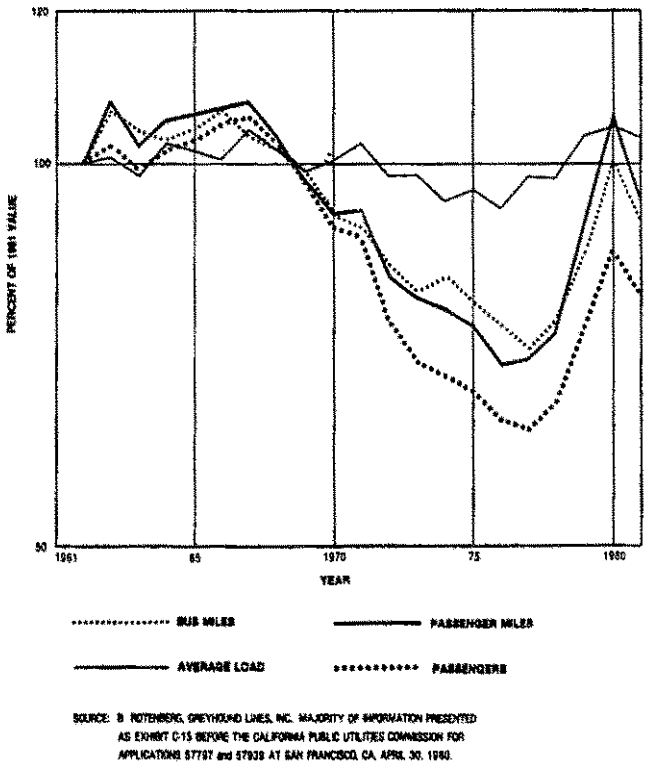
Fig. 2.8 Intercity Bus Travel
Major Carrier Bus Service in California

Multimodal Terminals

Multimodal terminals can facilitate passenger transfers between modes. However, some operational problems must still be remedied, especially when terminals are constructed in smaller cities. Some aspects associated with multimodal terminals are:

- Costs per passenger are reduced as more persons use a facility.
- Transfer times between modes are significantly decreased.
- Increased costs may result from replacement of part-time ticket agents with full-time attendants.
- Additional bus patronage will be needed to cover added operating costs.
- Carriers may lose corporate "identity" and be prevented from prominently displaying logos and signs on the inside and outside of the station.
- Competing package express services may require separate counter areas.
- Assignment of bus bays, gates, and ticket sales locations must be negotiated early.
- Access for both public and private carriers should be included in the design.
- Assurances are needed that the station will be constructed on schedule, to allow carriers to program construciton resources effectively.
- Availability and continuity of future public funding for terminal operations should be assured to the tenants.

Carefully designed and managed, multimodal terminals can increase passenger patronage and efficient use of public transportation modes.



SOURCE: B ROTENBERG, GREYHOUND LINES, INC. MAJORITY OF INFORMATION PRESENTED AS EXHIBIT C-15 BEFORE THE CALIFORNIA PUBLIC UTILITIES COMMISSION FOR APPLICATIONS 57797 and 57938 AT SAN FRANCISCO, CA. APRIL 30, 1980.

Fig. 2.9 Greyhound Lines, Inc.
Total State of California Mainline Operating Statistics
Month of October 1961-1981

Prepared by the
STATE OF CALIFORNIA
DIVISION OF MASS TRANSPORTATION
INTERCITY BUS BRANCH

CALIFORNIA
1980
INTERCITY BUS TRAFFIC
(BUSES PER WEEK)

SCALE IN MILES
10 0 10 20

Word Searchable Version not a True Copy

Figure 2.10

Consumer Information

An important aspect of coordination of service is the integration of consumer information services. One agent cannot be expected to know and quote the schedules and fares of all connecting carriers and public transit systems.

Legal Operating Requirements

Legal operating requirements may actually discourage integration and coordination of services. In California, for example, local transit operators in rural areas are faced with a minimum ten percent farebox return requirement to cover operating costs.

Good revenue producing routes are often needed to meet this farebox return requirement. Intercity routes, although served by another carrier, can often offer the needed extra revenue. The result may be a competitive, noncooperative relationship between public and private carriers.

Taken together, these seven coordination issues demonstrate the complexity of the coordination problem.

STATIONS

Passenger facilities may be ranked in terms of the level of service provided. With reference to service points, a patron might board a bus at any of the following places (from lowest to highest service levels):

- curbside stop
- roadside turnout
- outside a local business
- full-time commissioned bus station
- company-owned station
- multimodal station

Ticket sales may also be ranked in terms of service levels (from lowest to highest):

- direct purchase from bus driver
- purchase from off-line ticket agent (i.e., neighborhood travel agent)
- purchase from commission agent at on-line agency station
- purchase from company personnel at bus terminal

Other elements included in a station's functional design are passenger services such as baggage checking and claiming, bus arrival and departure information, package express service, restroom facilities, security protection, waiting and resting areas; and passenger conveniences such as restaurants/coffee shops, gift shops, banks, insurance sales, bars, newsstands, telephones, car rental agencies, storage lockers, medical services, barber shops, hotel/motel accommodations, taxi and public transit zones, and auto parking. Bus carrier operations require driver rest areas, dispatch and communication services, and baggage/express crew areas. Possible operations and maintenance services found within the facility include areas for administration, maintenance and utilities, and security and police services.

The majority of bus stations in California are located in central business districts. Many stations are housed in older buildings; less than half of these have been remodeled or have plans for such work in the near future. When improvements are made to old stations, they are usually limited to low cost, cosmetic improvements such as interior or exterior painting.

In the case of smaller stations, the commission agent is often located within a local business. Agents must balance their private business affairs with the demands of the bus service. Some local operations, especially restaurants, find that their bus sideline actually improves their business. In general, however, carriers have been experiencing difficulties in locating business people willing to become agents.

At larger stations, several bus companies may share the facilities. Greyhound Lines, for example, often leases station space to smaller private carriers, public transit systems, and charter bus companies.

The Technical Supplement provides a listing of intercity bus stations by County and Carrier.

The fifteen busiest California cities with intercity surface transportation stations are shown in Table 2.2. The number of weekly departures are listed, as are the number of weekly terminating arrivals. The sum of these two figures represents the total scheduled activity, to include service that originates, terminates, or passes through each city.

Table 2.2 Intercity Surface Transportation Travel Activity at the Fifteen Busiest Cities in California (1981)

Location	Carrier	Number of Scheduled Weekly: Departures	Terminating Arrivals	Total
1. San Francisco	Amtrak (bus)	35	35	70
	Greyhound Lines	904	875	1,779
	So. Pacific RR	131	131	262
	Trailways	145	145	290
	Total	1,215	1,186	2,401
2. Los Angeles	Amtrak	72	72	144
	American Pacific	14	14	28
	Greyhound Lines	959	663	1,622
	Trailways	282	203	485
	Total	1,327	952	2,279
3. Oakland	Amtrak	35	21	56
	Amtrak (bus)	35	35	70
	Greyhound Lines	774	-0-	774
	Peerless Stages	44	44	88
	Trailways	290	-0-	290
	Total	1,178	100	1,278
4. Sacramento	Amador Stage	11	11	22
	Amtrak	14	-0-	14
	Amtrak (bus)	14	14	28
	Greyhound Lines	627	303	930
	Trailways	239	37	276
	Total	905	365	1,270
5. San Diego	Amtrak	48	48	96
	Greyhound Lines	597	313	910
	Mexicoach	28	28	56
	Trailways	84	14	98
	Total	757	403	1,160
6. San Jose	Amtrak	14	-0-	14
	Greyhound Lines	394	112	506
	Peerless Stages	82	16	98
	So. Pacific RR	126	131	257
	Total	616	259	875
7. Vallejo	Greyhound Lines	498	77	575
	Trailways	154	-0-	154
	Total	652	77	729
8. San Bernardino	Amtrak	28	-0-	28
	Greyhound Lines	306	45	351
	Mountain Area Trans.	12	12	24
	Trailways	231	14	245
	Total	577	71	648

Table 2.2 (Continued)

9. North Hollywood	Greyhound Lines	442	14	456
	Trailways	140	-0-	140
	Total	582	14	596
10. Richmond	Amtrak	56	-0-	56
	Greyhound Lines	345	-0-	345
	Trailways	154	-0-	154
	Total	555	-0-	555
11. N. E. Sacramento	Greyhound Lines	372	-0-	372
	Trailways	179	-0-	179
	Total	551	-0-	551
12. Oceanside	Amtrak	96	-0-	96
	Greyhound Lines	329	3	332
	Trailways	119	-0-	119
	Total	544	3	547
13. Bakersfield	Amtrak	14	14	28
	Foster's Trans.	18	18	36
	Greyhound Lines	287	-0-	287
	Kernville Stage	6	6	12
	Orange Belt	43	29	72
	Trailways	98	-0-	98
	Total	466	67	533
14. Fresno	Amtrak	28	-0-	28
	Greyhound Lines	332	47	379
	Sierra Highlands	12	12	24
	Trailways	98	-0-	98
	Total	470	59	529
15. Stockton	Amador Stage	3	3	6
	Amtrak	28	-0-	28
	Amtrak (bus)	14	14	28
	Calaveras Transit	6	6	12
	Greyhound Lines	290	49	339
	Trailways	98	14	112
	Total	439	86	525

THE CARRIERS

Both private and public sector operators are engaged in intercity bus transportation services in California.

Private Sector

Regular Route Service. Traditional service has been in the form of regularly scheduled bus trips along designated routes.

Fixed-route intrastate services may be offered only by a "passenger stage corporation" under the authority of a Certificate of Public Convenience and Necessity. According to the Public Utilities Code, a passenger stage corporation is a public utility carrier that provides transportation of the general public, baggage, and package express between fixed termini or over a regular route for compensation. Fares are charged on an individual patron basis.

Services such as club buses, airport buses, shuttle services, and per capita sightseeing tours are considered regular route services regulated as passenger stage corporations:

> Airport Service. The "Airporter" bus is a form of passenger stage operation. Generally, it is characterized by rapid service along a fixed route between specified locations and an air terminal.
>
> Tour Service. The "sightseeing" or "tour bus" form of passenger stage service generally begins and terminates trips at the same location, and has a "homogeneous" passenger group that is traveling together for a similar purpose.
>
> Commuter Service. "Home-to-work" commuter buses (subscription services) are also classified as passenger stage corporations. Often, one of the commuting persons also serves as driver. The bus is typically an older model coach and is parked when not performing the home-to-work trip.

Package Express. Package express services can be profitable for fixed-route carriers. By taking advantage of shared costs with regular route passenger service, small package operations can generate significant revenues, often more than the revenues received directly from passengers. Many small carriers do not operate on Sundays when packages are not usually shipped or received.

Charter. It is very common for a carrier to hold both passenger stage and charter-party certificates. The charter portion of the bus industry can be exceptionally successful. Charter service is growing as a wholly specialized form of bus transportation.

Charter-party carriers differ from passenger stage corporations in both the nature of operating strategies and in computation and collection of service fees. Class "A" charter-party carriers operate from any point or points within the State to other points in the State. A Class "B" carrier has a more restricted service area, typically a 40-mile radius pickup zone. It may operate from any point within the zone of origin specified in the certificate to any other point in the State (see Figure 2.11).[4]

[4] New Class "A" Certificates are no longer issued.

Charters are attracting heavy patronage and are yielding substantial profits to help cover regular route losses, especially for smaller carriers. Over 130 charter carriers in California operate 5,300 vehicles in statewide charter services.

Sixty-nine of the companies have headquarters located in the following Southern California counties: Los Angeles, San Bernardino, Orange, Riverside, San Diego, and Imperial. Thirty-five of the companies operate out of the nine Bay Area counties: Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano, and Sonoma. The remainder of the companies are scattered throughout the State.

Charter service fees are calculated either on the basis of vehicle miles or operating time, or a combination of the two. These charges may vary with the passenger capacity of the vehicle, or the size of the chartering group. An important distinction from a passenger stage corporation is that a charter-party carrier cannot charge fares on an individual basis. A chartered bus is available only to the chartering group, and the group establishes the route and itinerary of the bus. The fee must be on a group basis only (school bus contractors are an exception to this rule). If a charter trip becomes so popular that it resembles, in effect, a regular route, then the PUC can require passenger stage route authority.

Another form of charter-party carrier is called the airport limousine. A "limousine" is defined as a vehicle capable of seating up to fifteen people. Upon receipt of a PUC charter permit, the limousine may provide service for a fixed fare. This fare may be divided among the passengers at their discretion, however, the driver may not charge for services on an individual basis. Variations of this service include the van-limousine (substituting a van for the traditional elongated sedan) and the share-a-ride limousine service which allows deviations from the most direct route to the airport in order to pick up additional passengers.

Charter operations range from several small companies which own one vehicle to large companies with fleets of over 200 buses. The typical carrier in the State has a fleet of thirty to thirty-five vehicles. Most of the vehicles used by charter companies are intercity style coaches including Eagle, GMC, Prevost,

LEGEND

- EQUIPMENT SERVICE POINT
- CLASS A (UP TO 50 MILES SHOWN, BUT MAY SERVE ENTIRE STATE)
- CLASS B (ACTUAL PICKUP AREA SHOWN)
- NO CLASS A EQUIPMENT SERVICE POINT WITHIN 50 MILES; NO AUTHOIZED CLASS B PICKUP AREA

Prepared by the
STATE OF CALIFORNIA
DIVISION OF MASS TRANSPORTATION
INTERCITY BUS BRANCH

CALIFORNIA
INTRASTATE
CHARTER BUS SERVICE AREAS
FOR CLASS A AND B CARRIERS

SCALE IN MILES

Figure 2.11

MCI, and Crown models. Other vehicles include transit coaches, school buses, vans, and limousines. The varieties of vehicles used by the charter industry make the services available to a broader range of patrons.

Charter operators provide services to several important travel groups: including tourists, clubs, organizations, and senior citizens. The tourist portion now is composed of more foreign tourists than in the past. In general, there is an increase in ridership throughout the industry and most of the companies report increased revenues.

Charter operations, as part of the intercity transportation network, offer energy efficiency and convenience to intercity travel. The average fuel consumption of charter operations is approximately 208 passenger-miles per gallon.[5] Charter operations constitute the major source of revenues for many companies, often offsetting unprofitable regular route service. Thus, charter carriers must be considered in any plan involving the future of the bus industry as an efficient mode of transportation and a profitable segment of the bus industry as a whole.

Government-Operated Intercity Bus Services

Public intercity bus services not regulated by the Public Utilities Commission (PUC) are operated by various units of local government.

Transit Districts. The Golden Gate Bridge, Highway and Transportation District (GGBHTD), the Sacramento Regional Transit (RT), and the Bay Area Rapid Transit District (BARTD) are examples of statutorily-created transit districts. Their boundaries of operation are determined by the State and implemented by a vote of the local populace. Some transit districts may provide charter bus service; others may not. Some have taxing powers; others do not.

County Transportation Services. Counties may also provide transit systems under the provision of Government Code §26002. This law states that...

> "Unless otherwise provided by law, the board may lay out, maintain, control, construct, repair, and manage...passenger transportation facilities within the county and may cooperate with any city in doing so."
>
> "The board of supervisors may furnish and operate public transportation services within the unincorporated areas of the county. Such service may be furnished and operated within a city or transit district if the governing board of the city or district consents thereto."

Among the counties providing this type of service are Colusa, Tulare, and Placer.

Municipal Corporation (City) Transportation Services. Municipalities may provide intercity bus service. Article XI, Section 9, Paragraph (a) of the State Constitution states:

> "A municipal corporation may establish, purchase, and operate public works to furnish its inhabitants with...transportation, or other means of communication. It may furnish those services outside its boundaries, except within another municipal corporation which furnishes the same service and does not consent."

Cities with this type of service include the Coalinga Transit System (providing service to residents along its 71-mile route to Fresno), the Escalon Public Transportation Service, and the Fillmore City Bus (serving Fillmore, Piru and Santa Paula).

Joint Exercise of Powers Transportation Agencies. A county and city may create a transportation agency through joint exercise of powers. This is defined as an association of county and city governments for the purpose of providing transportation services. Monterey-Salinas Transit and the HUB Area Transit Authority (funded by Yuba City, Marysville, Sutter County, and Yuba County) are both examples of this type of agency.

Special Services Transportation Entities. Over 5,000 vans and small transportation vehicles are operated in all parts of the State, providing transportation services to those in special need, such as poor,

[5] Estimated by American Bus Association on basis of carrier reports to Interstate Commerce Commission.

elderly, infirmed, or disabled persons. Usually these services are restricted for use only by designated riders, although in some cases the general public will be transported on a space-available basis.

A list of California intercity bus carriers and their operating authority is found in Table 2.3.

In this chapter, the scope and characteristics of California's intercity bus system have been described. In the following chapter, the finances of intercity bus services are discussed.

Table 2.3 Intercity Bus Carriers in California (January 1982)

Amador Stage Lines, Inc.
Antelope Valley Bus, Inc.
Calaveras Transit Company
Campesinos Unidos, Inc.
Coastlines
Desert Stage Lines
Foster's Transportation Service
Great American Stageline
Greyhound Lines, Inc.
Guest Services, Inc.
Inter Mountain Stage Company
Kernville Stage & Freight Lines of California
Las Vegas-Tonopah-Reno Stage Lines, Inc.
The Mendocino Stage
Mexicoach, Inc.
Mt. Lassen Motor Transit, Inc.
Mountain Area Transit Co.
Orange Belt Stages
Peerless Stage, Inc.
Redwood Empire Lines
Sierra Highlands Bus Company, Inc.
Sun Valley Bus Lines
South Country Express
Storer Transportation Service
Trailways, Inc.
Yosemite Transportation System

TRANSIT DISTRICT CARRIERS

Bay Area Rapid Transit District Express Bus Service
Golden Gate Bridge, Highway and Transportation District
North San Diego County Transit District
Sacramento Regional Transit District
San Mateo County Transit District
Santa Barbara Metropolitan Transit District
Santa Clara County Transit District
Santa Cruz Metropolitan Transit District

COUNTY CARRIERS & JOINT POWERS AGENCIES

Amador Rapid Transit
Antelope Valley Bus Service
Butte County Transit System
Colusa County Transit System
Del Norte City & County Public Bus
Delta Area Rural Transit
El Dorado Transit
Galt Community Transit
Gold Country Stage
Hub Area Transit Authority
Kern Area Rural Express
Kings Area Rural Transit
Lake Elsinore Transit System
Lathrop-French Camp Transit
Mendocino Transit Authority
Merced Area Regional Transit System
Monterey-Salinas Transit
Morro Bay - Cambria Bus Service
North Coastal Transit
Orange Cove-Parlier Transit*
Patterson Turlock Stage
Placer County Mini Bus
Redwood Transit System
Riverside Transit Agency
San Diego County Rural Bus System
San Diego County Suburban Bus System
Santa Clarita Valley Commuter Services
Santa Maria-Orcutt-Guadalupe Transit
Siskiyou Transit and General Express
Sonoma County Area Transit
South Coast Area Transit
South County Area Transit
Sunline Transit Agency
Tahoe Area Regional Transit
Thousand Oaks-Moorpark Interconnecting Bus Service
Tri-Delta Transit Authority
Tulare County Transit
County of Tuolumne
Westranz*
Yolo County MiniTran
Yolo County Transit

MUNICIPAL CARRIERS

Arcata and Mad River Transit System
Coalinga Transit System*
Escalon Public Transportation Service
City of Fillmore Bus

*Part of Fresno County Rural Transit Agency

3. Finances of Intercity Bus Transportation

In the previous chapter, the organization of California's intercity bus transportation was discussed. This chapter will examine the financial posture of the intercity bus industry from both national and California perspectives. Operating revenues and expenditures, and operating ratios are examined. Finally, sources of public funding are identified.

NATIONAL INTERCITY BUS FINANCES

The financial posture of the nation's intercity bus industry between 1971 and 1980 is illustrated by its operating ratio, the industry's measure of profitability. Beginning in 1971, the industry's operating ratio (operating expenses divided by operating revenues) rose steadily from 89.4 percent to 95.8 percent. This ascent was slowed momentarily by an increase in patronage during the 1974 energy shortage. The upward trend slowed once again in 1977, peaking in 1978 with an operating ratio of 96.2 percent. Following the 1979 energy crisis, the industry's operating ratio declined to 93.1 percent in 1980 (see Figure 3.1).

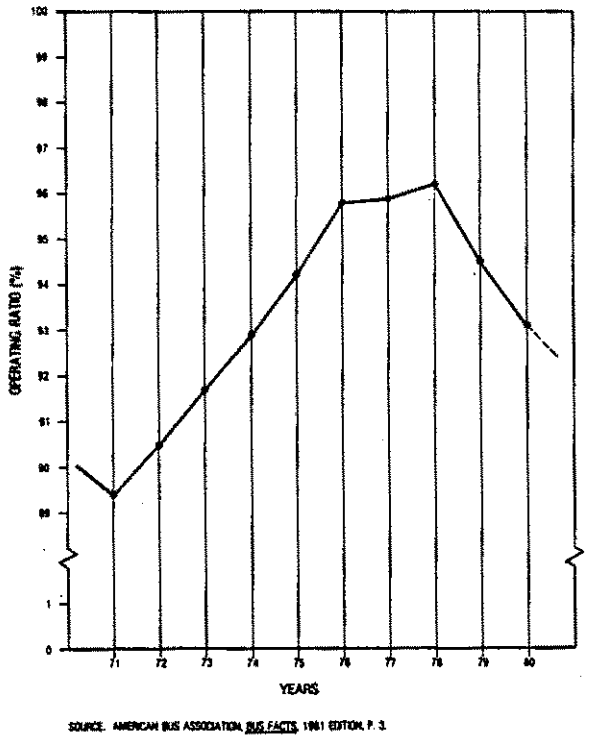
To better understand the causes behind the fluctuation in the industry's operating ratio, an examination of operating expenses, revenues, and profit margins for this period is necessary.

Operating Expenses

Between 1971 and 1980, operating expenses for intercity bus service doubled. (See Figure 3.2.) This was primarily caused by cost increases in labor, vehicles, and fuel.

Labor. Labor costs constitute approximately two-thirds of the industry's total expenses.[1] Average annual earnings for class I intercity bus employees rose 92 percent between 1971 and 1979, from $9,211 a year in 1971 to $17,672 a year in 1979.[2]

[2]American Bus Association, Bus Facts, 1981 Edition, p. 20.



SOURCE: AMERICAN BUS ASSOCIATION, BUS FACTS, 1981 EDITION, P. 3.

Fig. 3.1 Operating Ratios for the Intercity Bus Industry in the United States: Aggregate of Classes I, II, III Reporting to the ICC and Intrastate Carriers, 1971-80

[1]Vern L. Middleton, Vice President - Regulatory Relations, Greyhound Lines, Inc., Presentation at Transportation Regulation Conference, Minneapolis, MN, September 19, 1977.

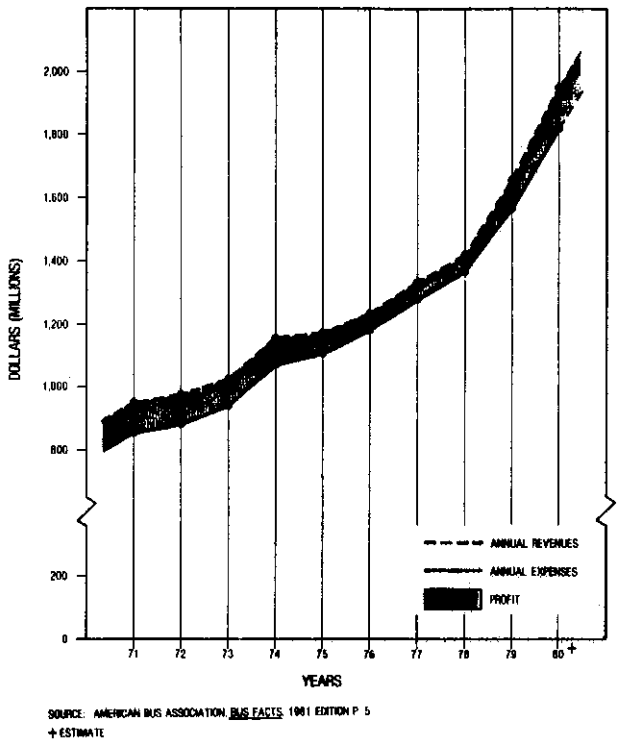


Fig. 3.2 Intercity Bus Industry in the United States-Classes I, II, III Reporting to the Interstate Commerce Commission, Expenses, Revenues, Profit 1971-80

Vehicles. The replacement price for intercity bus motor coaches has doubled in the last ten years. An intercity bus operator purchasing a new MCI motor coach from Greyhound's factory paid $138,000 in 1981 as compared to $66,500 in 1971.

The cost of vans, often used by smaller carriers, increased dramatically in the last five years. The purchase price of an 11-passenger van in 1976 was $6,000. In 1981, the price of a comparable 15-passenger van was approximately $12,000--a 100 percent increase.[3]

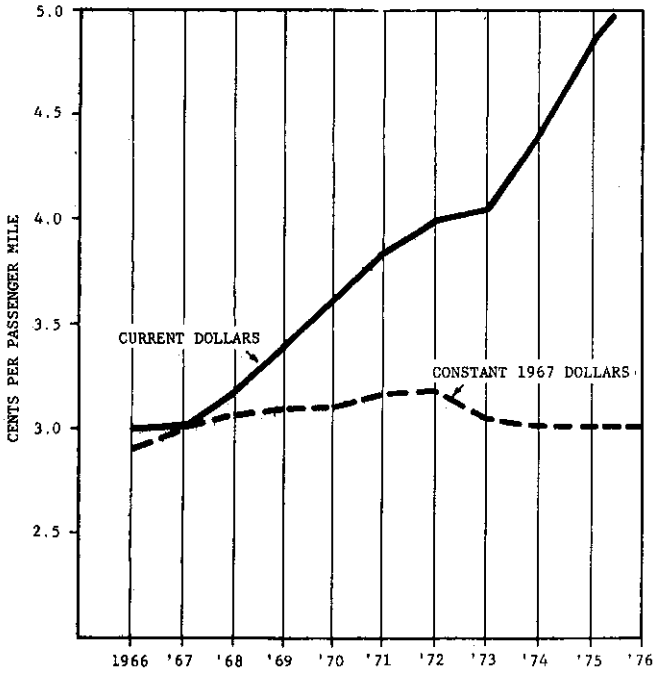
Fuel. The cost of fuel for intercity bus operations rose 160 percent between 1974 and 1980, from 6.1 cents per bus mile to 15.9 cents per bus mile. As a result, expenditures for fuel in 1980 constituted 8.6 percent of the industry's total operating expenses, up from 6.3 percent in 1974.[4]

[3] Figures from Caltans' UMTA 16(b)2 program.
[4] American Bus Association, p. 18.

Operating Revenues and Profits

Between 1971 and 1976, operating revenues increased by 23 percent (see Figure 3.2). At the same time, passenger fares rose approximately 40 percent, from 3.7 cents per passenger mile to 5.2 cents per passenger mile. When measured in constant 1967 dollars, however, these increases barely kept pace with the rate of inflation (see Figure 3.3). This, combined with a 14 percent loss in revenue passengers, resulted in operating expenses outpacing revenues by 1-2 percent, annually. Profits shrank to their lowest point in 1976.

Beginning in 1977, the industry's profit margin showed a slight gain. Spurred by an improved public image, high fuel prices, and an expanding charter service (due to an increase in tourism by bus), operating revenues rose 37 percent between 1978 and 1980. Operating revenues once again outpaced operating expenses, resulting in the industry's operating ratio falling to its lowest point in five years.



Source: NAMBO Tabulation of ICC Industry Data.From presentation by Vern L. Middleton, Greyhound Lines, Inc., at the Transportation Regulation Conference, Minneapolis Minnesota, on September 19, 1977.

Fig. 3.3 Bus Fares In Terms 1967 Dollars

CALIFORNIA'S INTERCITY BUS FINANCES

In January 1982, twenty-six privately owned bus companies provided fixed-route intercity bus service in California. The Public Utilities Commission (PUC) has required these carriers to file Annual Reports detailing the previous year's operating revenues, expenses, and related data. Trends for operating expenses and revenues were developed for each class for the five-year period between 1976 and 1980 (see Table 3.1 for carriers included in this survey). Prior to examining these three components, the overall trends of the California intercity bus industry will be examined.

California Carriers

California's, intercity bus industry has exhibited trends similar to those at the national level. Operating ratios gradually declined in 1976 and 1977, descending more rapidly in 1978. Unlike the 1980 national operating ratio, however, California's ratio demonstrated a small increase (see Figure 3.4).

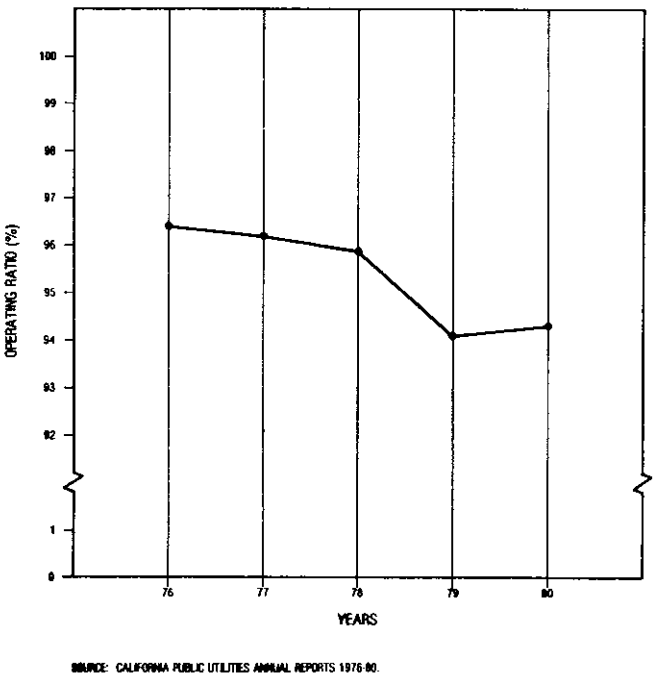


Fig. 3.4 Operating Ratios Classes I, II, and III Reporting to the P.U.C., 1976-80

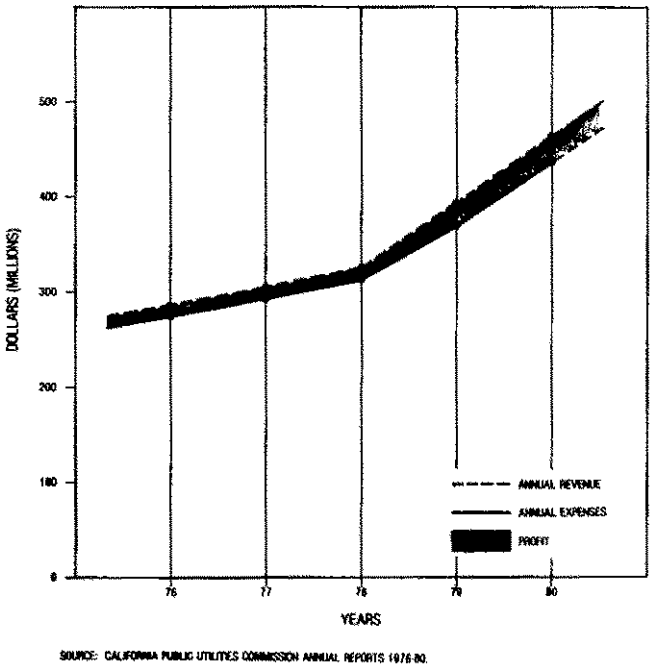


Fig. 3.5 California Intercity Bus Industry Classes I, II and III Reporting to the California Public Utilities Commission Expenses, Revenues, Profit, 1976-80

A list of operating expenses generally incurred by California carriers is found in Table 3.2. The cost per bus mile for intercity bus carriers using intercity coaches has been estimated at approximately $1.17 per bus mile for 1981. In 1980, vans could provide intercity bus service for $.84 per bus mile.

Both expenses and revenues rose between 1976 and 1980, with revenues outpacing expenses to ensure a steady increase in profits (see Figure 3.5).

Many California carriers apparently provide fixed-route services that are not profitable. Losses are cross-subsidized with profits from another portion of the operation. There are three common forms of cross subsidy: from interstate operations, from other routes, and from charter and freight (express) services.

Class I carriers having both interstate and intrastate operating authorities must sometimes use profits from interstate operations to subsidize losses from

Table 3.1

Class I, II, and III
California Intercity Bus Carriers Reporting
to the California Public Utilities Commission
(1976-1980)

Class I (annual operating revenues greater than $3 million)

Greyhound Lines, Inc.--Western Division (76-80)
Las Vegas-Tonapah-Reno Stage Lines, Inc. (76-80)
Sun Valley Bus Lines (79-80)
Trailways, Inc.--Western Division (76-80)

Class II (annual operating revenues greater than $200,000 and less than $3 million

Amador Stage Lines (77-80)
Antelope Valley Bus Company (76-80)
Desert Stage Lines (77-80)
Mexicoach, Inc. (78-80)
Orange Belt Stages (76-80)
Peerless Stages, Inc. (76-80)
Sierra Highlands Bus Company, Inc. (80)
Storer Transportation Service, Inc. (76-80)
Sun Valley Bus Lines (76-78)
Yosemite Transportation System (76-80)

Class III (annual operating revenues less than $200,000)

Calavares Transit Company (76-80)
Coastlines (80)
Desert Stage Lines (76)
Fosters Transportation Service (76-80)
Inter Mountain Stage Company (76-80)
The Mendocino Stage (76-80)
Mount Lassen Motor Transit Inc. (76-80)

*PUC Annual Reports for 1976-80 not on file for:
Campesinos Unidos, Inc.
Great American Stageline, Inc.
Guest Services, Inc.
Kernville Stage and Freight Lines of California
Mountain Area Transit Company
Redwood Empire Lines
San Luis Transportation, Inc., dba South County Express

intrastate operations, because intrastate fares are generally held lower than interstate fares (per mile). Carriers also use profits from popular and profitable intrastate routes to subsidize losses from poorly patronized routes within rural areas. This practice is common among Class I and II operators. Finally, carriers subsidize passenger operations through revenue generated from charter or freight services. This form of cross subsidy is practiced by all three carrier classes, but is most pronounced among Class II and III operators.

Class I Carriers. Class I carriers contributed 97 percent of all operating revenues generated by California carriers between 1976 and 1980.[5] Passenger revenue from fixed-route intercity bus services represented 68 percent of total

[5]Reporting methods of Greyhound Lines, Inc., Trailways, and Sun Valley Bus Lines, include revenues and expense figures from outside California.

Table 3.2

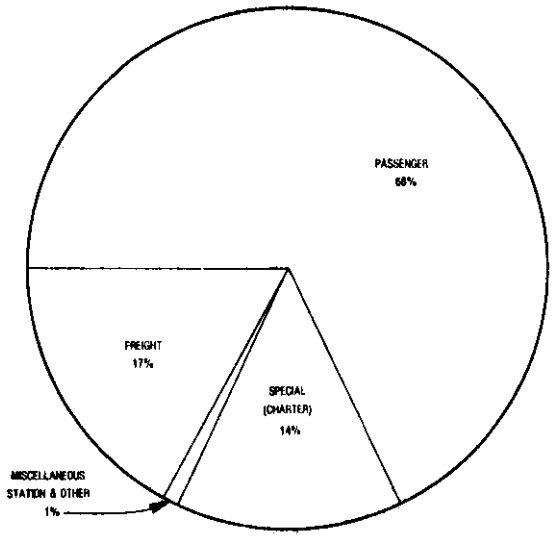
Elements of Operating Expenses and Estimated Costs in California

ELEMENT	COST PER BUS MILE	
	Highway Coach[1]	Van[2]
Maintenance:		
Labor	$ .08	$ .04
Materials & Supplies	.03	.01
Outside Services	.01	.01
Tires and Tubes	.03	.02
Other	---	---
Subtotal:	$ .15	$ .08
Transportation:		
Supervision	$ .03	$ .07
Driver's Wages	.31	.25
Fuel	.20	.14
Oil	.02	.01
Other	---	---
Subtotal:	$ .56	$ .47
Station:		
Salaries	$ .02	$ .03
Supplies	---	---
Commissions	.03	.01
Other	---	---
Subtotal:	$ .05	$ .04
Traffic and Advertising		
Salaries	$---	$ ---
Expenses	---	---
Printing Tariffs	---	---
Printing Schedules	---	---
Tickets and Baggage Checks	---	---
Subtotal:	$---	$ ---
Insurance and Safety:		
Public Liability and Property Damage	$ .06	$ .05
Workmen's Compensation	.01	.02
Fire and Theft	.01	---
Other	---	---
Subtotal:	$ .08	$ .07
Administration:		
Salaries (Office Employees)	$ .05	$ .05
Outside Legal/Accounting	.03	.02
General Office Supplies, Expense, Services	.02	.02
Employees' Welfare	.04	---
Other	.01	---
Subtotal:	$ .15	$ .09
Operating Taxes and Licenses:		
Fuel and Oil	$ .03	$ ---
Vehicle Licenses and Registration	.01	.01
Payroll Taxes	.05	.02
Property and Other	.01	---
Subtotal:	$ .10	$ .03

Operating Rents:			
Parking Lot		$ ---	$ ---
Station/Garage		---	.01
Management Costs		---	---
Other		---	---
	Subtotal:	$ ---	$ .01
Depreciation:			
	Subtotal:	$ .08	$ .05
Total Cost Per Bus Mile		$ 1.17	$ .84

[1]Estimates from FY 1980-81 Intercity Bus Transportation Assistance Program.
[2]Estimates from FY 1979-80 Intercity Bus Transportation Assistance Program

Class I revenues for this period; freight followed at 17 percent, and special (charter) bus services contributed 14 percent (see Figure 3.6).



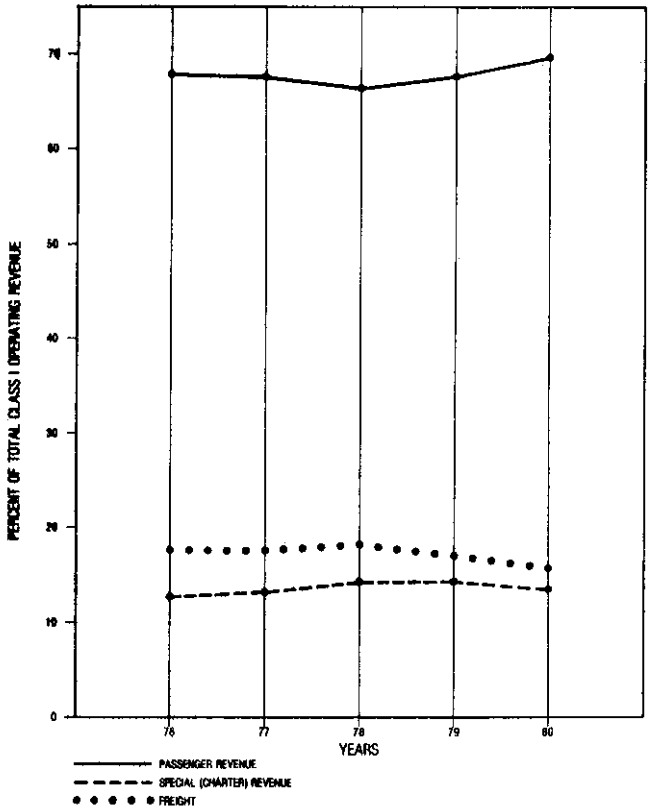
SOURCE: CALIFORNIA PUBLIC UTILITIES COMMISSION CLASS I ANNUAL REPORTS 1976-80.

Fig. 3.6 California Class I Carriers Aggregate Operating Revenues, 1976-80

Trends for this period show passenger revenues, though declining slightly in 1978, remaining as the major revenue source for Class I carriers (see Figure 3.7).

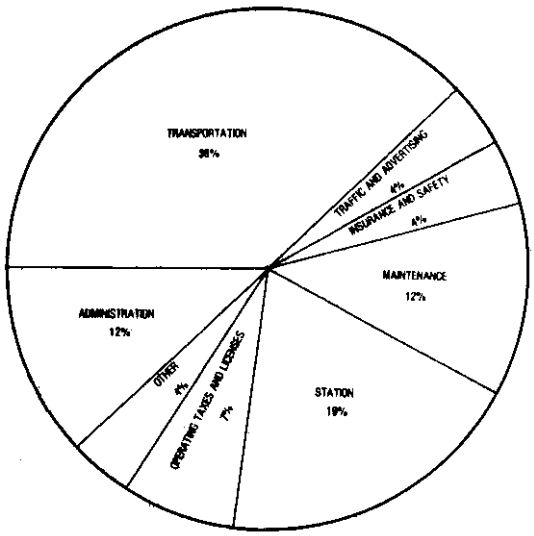
Major operating expenses for this period were transportation costs (38 percent), station costs (19 percent), and maintenance and administration costs (12 percent each). Operating taxes and licenses equaled seven percent of total operating expenses (see Figure 3.8).

Class II Carriers. The revenues generated by these medium-sized carriers constitute approximately three percent of California's total operating revenues. Unlike Class I carriers, Class II operators appear to rely on revenues derived from special (charter) bus services (62 percent) to make their operations financially feasible. Fixed-route passenger service follows as a far second at 32 percent. Freight revenues added another two percent (see Figure 3.9).



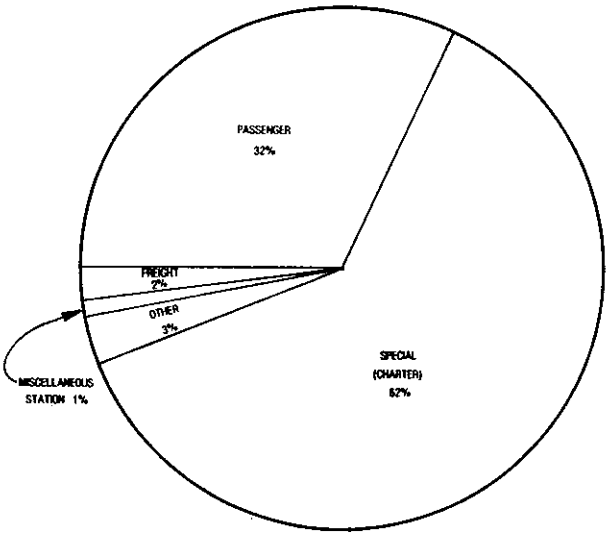
SOURCE: CALIFORNIA PUBLIC UTILITIES COMMISSION CLASS I ANNUAL REPORTS 1976-80.

Fig. 3.7 California Class I Carriers Operating Revenue Trends, 1976-80



SOURCE: CALIFORNIA PUBLIC UTILITIES COMMISSION CLASS I ANNUAL REPORTS 1976-80

Fig. 3.8 California Class I Carriers Aggregate Operating Expenses, 1976-80



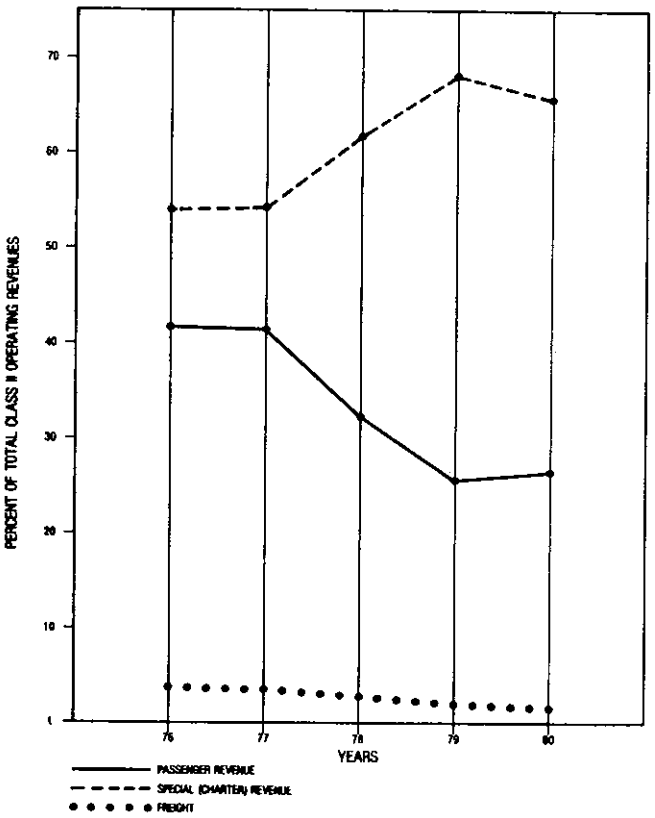
SOURCE: CALIFORNIA PUBLIC UTILITIES COMMISSION CLASS II ANNUAL REPORTS 1976-80

Fig. 3.9 California Class II Carriers Aggregate Operating Revenues, 1976-80

Trends for the period show revenue from special (charter) bus services becoming increasingly important over the past five years. Passenger revenue from fixed route services has dropped significantly (see Figure 3.10).

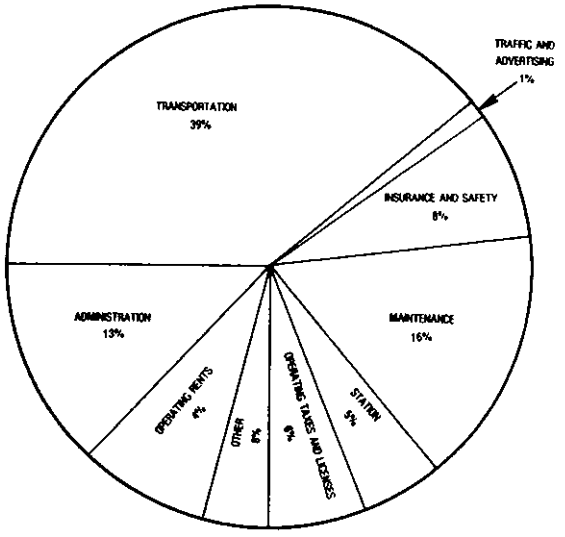
Transportation costs accounted for 39 percent of the total operating expenses of Class II carriers. Maintenance and administration costs followed at 16 percent and 13 percent, respectively. Operating taxes and licenses composed six percent of total expenditures (see Figure 3.11).

Class III Carriers. Less than one percent of all California operating revenues are generated by Class III carriers. Unlike either large or medium-sized operations, Class III carriers gain the majority of their income (45 percent) from freight services including package express service, newspaper deliveries, U.S. mail contracts, and baggage handling. California carriers appear to differ from U.S. Class III carriers in this aspect. Nationally, Class III carriers generally rely on charter services for the majority of their revenues. Passenger and special (charter) bus services contribute 42 percent and six percent, respectively (see Figure 3.12).



SOURCE: CALIFORNIA PUBLIC UTILITIES COMMISSION CLASS II ANNUAL REPORTS 1976-80

Fig. 3.10 California Class II Carriers Operating Trends Revenue Trends, 1976-80



SOURCE: CALIFORNIA PUBLIC UTILITIES COMMISSION CLASS II ANNUAL REPORTS 1976-80.

Fig. 3.11 California Class II Carriers Aggregate Operating Expenses, 1976-80

Class III carriers have shown a sudden decline in special (charter) bus revenues. A sporadic increase in freight revenues is noted, as is a decline in passenger revenues (see Figure 3.13).

The greatest expense incurred by Class III carriers is for transportation costs (49 percent). Maintenance and administration require 12 percent and ten percent, respectively. Operating taxes and licenses constitute another five percent of the Class' total operating expenses (see Figure 3.14).

PUBLIC FINANCING OF INTERCITY BUS SERVICES

Despite its position as a private entrepreneur, the intercity bus industry has benefited both directly and indirectly from public funds.

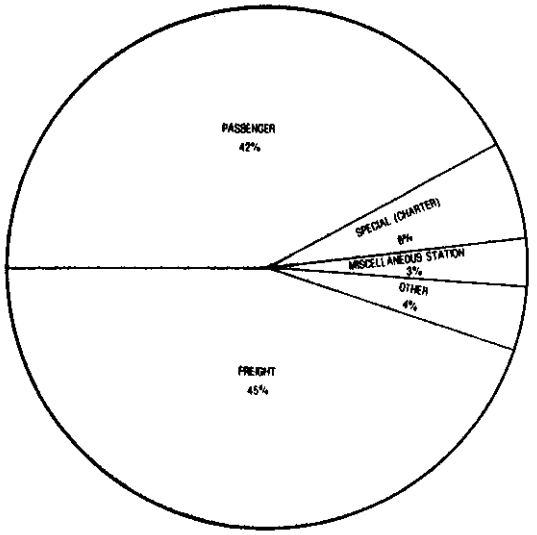
Indirect Financial Assistance

Highways. Intercity bus companies have benefited from the construction and maintenance of highways throughout the country. At the federal level, the intercity bus industry has received $24 million (0.1 percent of total federal assistance for transportation in 1981) in highway subsidies.[6] At State and local levels, intercity bus companies received $54 million (0.3 percent of total assistance for transportation in 1974) in highway subsidies.[7]

Excise taxes. Through the Energy Tax Act of 1978, intercity bus companies were exempted from a number of federal excise taxes; including charges on the purchase of diesel fuel, new buses, lubricating fuels, tires and tubes, and parts and accessories. In California, the industry is exempt from excise taxes on vehicle weight.

[6]Management Analysis Centers Inc., Deregulation of the Intercity Bus Industry (Washington, DC; January 1981, p. 18. Approximate modal shares are provided for illustrative purposes. The bus share is based on the bus share of total miles traveled on highways in 1978 (0.3 percent). This statistic was provided by the United States Department of Transportation Highway Planning Service.

[7]op. cit., p. 19.



SOURCE: CALIFORNIA PUBLIC UTILITIES COMMISSION CLASS III ANNUAL REPORTS 1976-80.

Fig. 3.12 California Class III Carriers Aggregate Operating Revenues, 1976-80

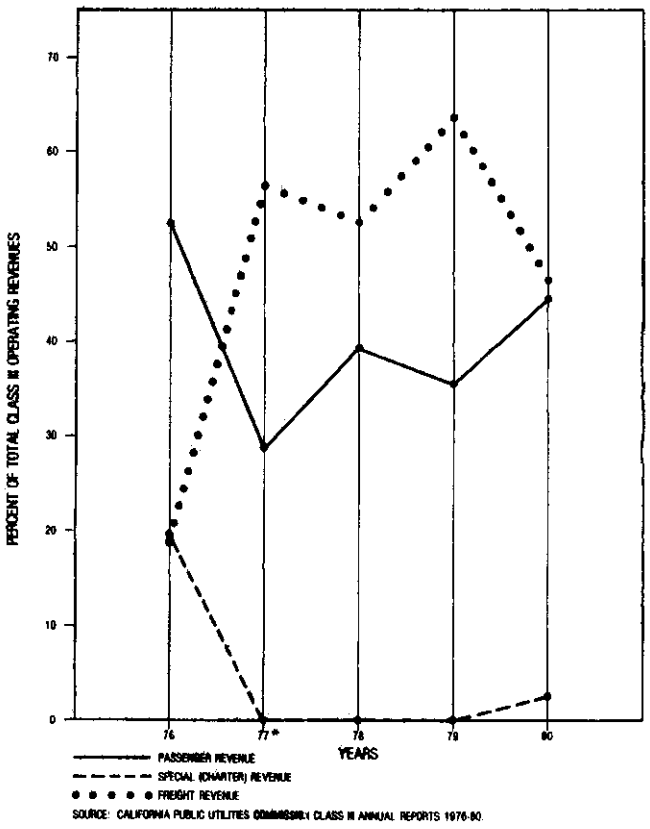
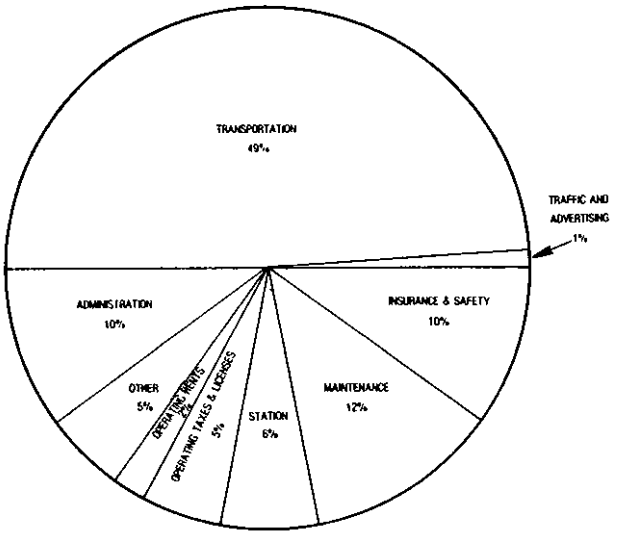


Fig. 3.13 California Class III Carriers Operating Revenue Trends, 1976-80



SOURCE: CALIFORNIA PUBLIC UTILITIES COMMISSION CLASS III ANNUAL REPORTS 1976-80

Fig. 3.14 California Class III Carriers Aggregate Operating Expenses, 1976-80

Direct Financial Assistance

Federal. Financial assistance has been made available to intercity bus carriers through more than 100 federal programs. The Urban Mass Transportation Assistance (UMTA), Section 18 formula grant program for capital and operating assistance has provided $6,770,517 since 1978 for rural public transportation in areas with less than 5,000 population. Though operating assistance is scheduled to be eliminated by 1983, capital assistance will be continued. Private carriers are eligible for UMTA Section 18 funds through contractual agreements with a local public body or state agency. However, carriers have been reluctant to engage in these contracts as UMTA Section 13(c) labor provisions and Section 504 handicapped accessibility requirements are included.

State. The Transportation Planning and Development (TP&D) Account is an important source of funding for the Caltrans' Intercity Bus Service Improvement Program. Originally funded from SB 620 (1979; Mills) funds, the program has provided $1 million annually for limited term demonstrations of new, expanded, and innovative intercity bus services.

More than 50 applications totalling in excess of $6 million were submitted during the program's fiscal year. The second cycle drew another 24 projects valued at $3 million. Twenty-six projects totalling in excess of $3,000,000 have been submitted for Fiscal Year 1981-82.

Local. Local and regional transportation planning agencies have two primary sources of dollars which can be used to contract with private carriers for intercity bus service: Local Transportation Funds (LTF) and State Transit Assistance (STA) dollars. Some counties have already engaged private operators (e.g., Yolo County and Commuter Bus Lines) or have instituted user-side subsidy programs with private carriers (e.g., Tulare County and Orange Belt Stages). In Fiscal Year 1979-80, approximately $341 million LTF dollars were allocated to California counties. Approximately $71 million dollars were allocated to the State Transportation Assistance Program.

This chapter has examined the finances of the intercity bus industry from national, California, and public perspectives. In Chapter 4, intercity bus patrons and their particular needs are described.

4. User Aspects of Intercity Bus Transportation

Decisions to use public transportation are based on many considerations, including service availability, cost, and quality. This chapter looks at several aspects of intercity bus transportation that are important from the user's perspective. By examining the user's perspective, service improvements can be made to benefit existing passengers and attract new riders in the future.

First, the passenger characteristics of California intercity bus travelers are presented and contrasted with the characteristics of passenger rail and commercial air users. Second, the results of several intercity bus passenger attitude studies are discussed. Studies of passenger attitudes identify desirable and undesirable intercity bus service qualities. Third, the special needs of certain groups that have difficulty using intercity bus are identified. The problems of intercity bus travel for unaccompanied children, and the elderly and handicapped are discussed. Finally, the need to better inform the public of transportation alternatives is described.

PASSENGER CHARACTERISTICS

The results of several passenger surveys have been examined to identify differences in passenger characteristics of commercial air, passenger rail, and intercity bus users. Information concerning intercity bus users was obtained from a limited survey of 12 California intercity bus routes conducted by Caltrans in 1981. While this information is not conclusive as to the characteristics of all California intercity bus users, it does provide a basis for comparison with other modes.

The passenger rail survey of the "San Joaquin" Amtrak train was used for comparative purposes because this route typifies long-distance intercity passenger rail travel (the "San Diegan" provides short-distance corridor rail service). Survey results of Pacific Southwest Airline users were utilized since this airline has primarily provided intrastate service.

Modal Comparison

A comparison of these surveys and similar studies indicates that user characteristics differ for each intercity mode. The median age of the intercity bus user appears considerably lower than that of the passenger rail and commercial air user. The median income for commercial air users is the highest, while it is lowest for intercity bus users. Although the average trip length for passenger rail and the intercity bus is similar, commercial air travel is over six times as far (see Table 4.1).

Figure 4.1 indicates passenger sex for each mode of travel. California intercity bus surveys indicate nearly equal representation of males and females. This contrasts with air travelers who are disproportionately male, and with rail passengers who are primarily female.

Figure 4.2 indicates passenger age by made of travel. Rail passengers are represented in all age categories, with the largest age group between 21 and 30. A larger percentage of adults aged 51 and older travel by train or bus than by air. While intercity bus users are well represented in most age categories, it seems that many are concentrated in the 16-30 age group. Air travel surveys show a strong concentration in the 21-50 age group and less young or elderly passengers.

Intercity bus passengers appear to have lower incomes than passenger rail and commercial air passengers (see Figure 4.3). Both rail and air passengers appear to have a significant number of passengers with incomes above

Table 4.1

Selected Characteristics of Intercity Travelers in California by Mode

		MODE OF TRAVEL IN CALIFORNIA		
		Intercity Bus	Passenger Rail (Amtrak)	Commercial Air
Passenger Characteristics	Median Age (Years)	26[1]	36[3]	41[4]
	Median Income ($)	$10,000[1]	$21,000[3]	$46,750[4]
	Average Trip Length (miles)	.133[(a)2]	164	705[(a)5]

[1] 1981 California Intercity Bus Passenger Survey, California Department of Transportation.

[2] America's Most Fuel Efficient Passenger Transportation Service, American bus Association 1979; Class I carriers.

[3] Amtrak San Joaquin Passenger Survey, 1981; California Department of Transportation, Division of Mass Transportation, Transit Marketing Branch.

[4] East/West Network Inflight Survey, Audits and Surveys, Inc., Los Angeles, CA, October 1978, Pacific Southwest Airlines. Inflated to 1981 dollars.

[5] Air Carrier Traffic Statistics, Civil Aeronautics Board December, 1977; Domestic (nationwide) scheduled service.

(a) Nationwide travel figure.

$25,000. However, more intercity bus passengers have incomes below $10,000 than either passenger rail or commercial air users.

These surveys also indicate differences in trip purposes. The most often cited trip purpose for bus passengers is to "visit friend or relative".[1] This is in contrast to responses of "business" for commercial air service[2] and "recreation and vacation" for passenger rail.[3]

PASSENGER TRAVEL NEEDS

Passenger attitude surveys provide useful information regarding positive and negative attitudes toward intercity bus travel. This information can be used to provide service that will be attractive to current users and potential new users.

Only limited research has been done in the area of assessing intercity passenger attitudes toward public transportation. Information is available from only a few agencies in other States that have incorporated attitudinal questions in on-board intercity bus surveys. At present, no attitudinal surveys have been conducted for California intercity bus users. However, the Department of Transportation will incorporate questions in future surveys to develop a more accurate understanding of passenger needs. Studies that are available were conducted in four states (Oregon, Wisconsin, Indiana, and Texas). These studies reveal a number of common passenger concerns. Generally,

[1] 1981 California Intercity Bus Survey; Caltrans, Division of Mass Transportation.

[2] EAST/WEST Network Inflight Survey; Audits and Surveys, Inc., Los Angeles, CA, October 1978.

[3] AMTRAK San Joaquin 1979 Passenger Study Report; Caltrans, Division of Mass Transportation.

these studies indicate that transportation costs, are not the only important influences on travel decisions. Quality of service is also an important factor that can potentially influence patronage. Aspects of service quality that are important to the user include:

- Safety
- Reliability
- Convenience
- Comfort

Safety

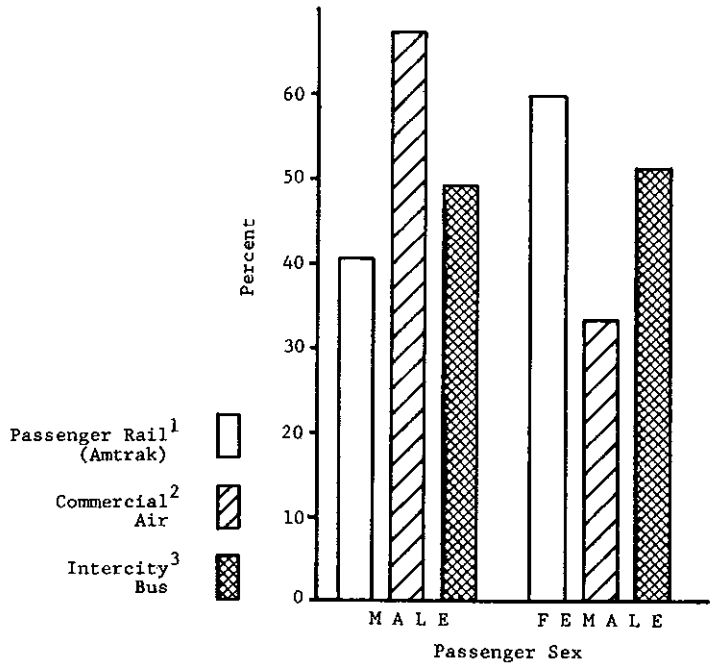
Passenger safety, both on the bus and in the station, was the service characteristic most often mentioned by intercity bus passengers. In several surveys respondents ranked this as the most important feature of bus travel.[4,5] Passengers seem to have considerable confidence in the safety of intercity buses. The results of a recent passenger survey conducted in Wisconsin indicate that 82 percent of all passengers agreed that buses provided safe transportation.[6] A national survey of intercity travelers found that the public perception of travel safety was the most favorable aspect of intercity bus transportation.[7]

Accident mortality statistics justify public confidence in bus safety. A ten year national average of accident death rates in passenger transportation indicate that intercity bus travel is the safest form of passenger transportation.

[4] Intercity Bus Transportation in Wisconsin, Vol. II: User Characteristics, Wisconsin Department of Transportation, April 1977

[5] Intercity Bus Riders in Texas, Texas Transportation Institute. Paper presented at the Transportation Research Board Annual Meeting, January 1982

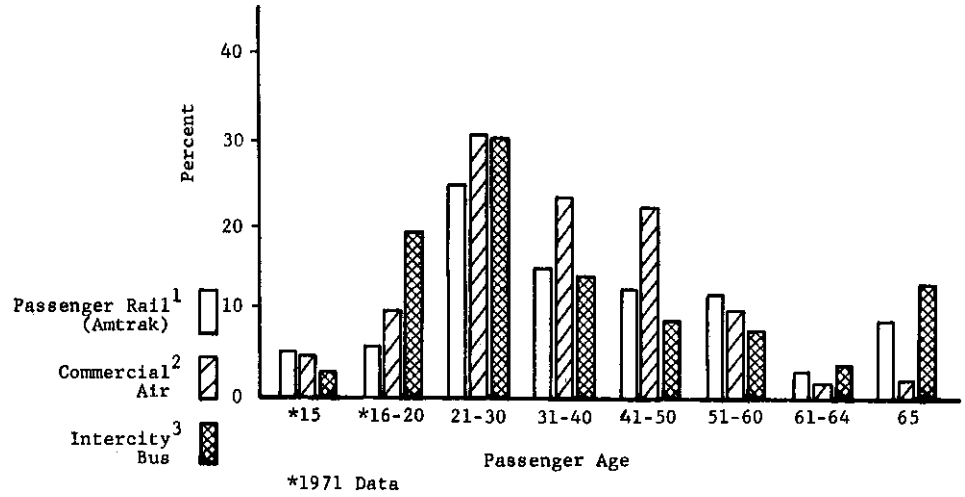
[6] Intercity Bus Transportation in Wisconsin, Vol. II: User Characteristics.



SOURCE:

[1] AMTRAK San Joaquin Passenger Survey, 1981; Caltrans, Division of Mass Transportation
[2] Statwide Master Plan of Aviation: Interim Progress Report Appendix: Prepared by Daniel, Mann, Johnson, and Mendenhall, 3/17/71
[3] 1981 California Intercity Bus Survey; Caltrans, Division of Mass Transportation

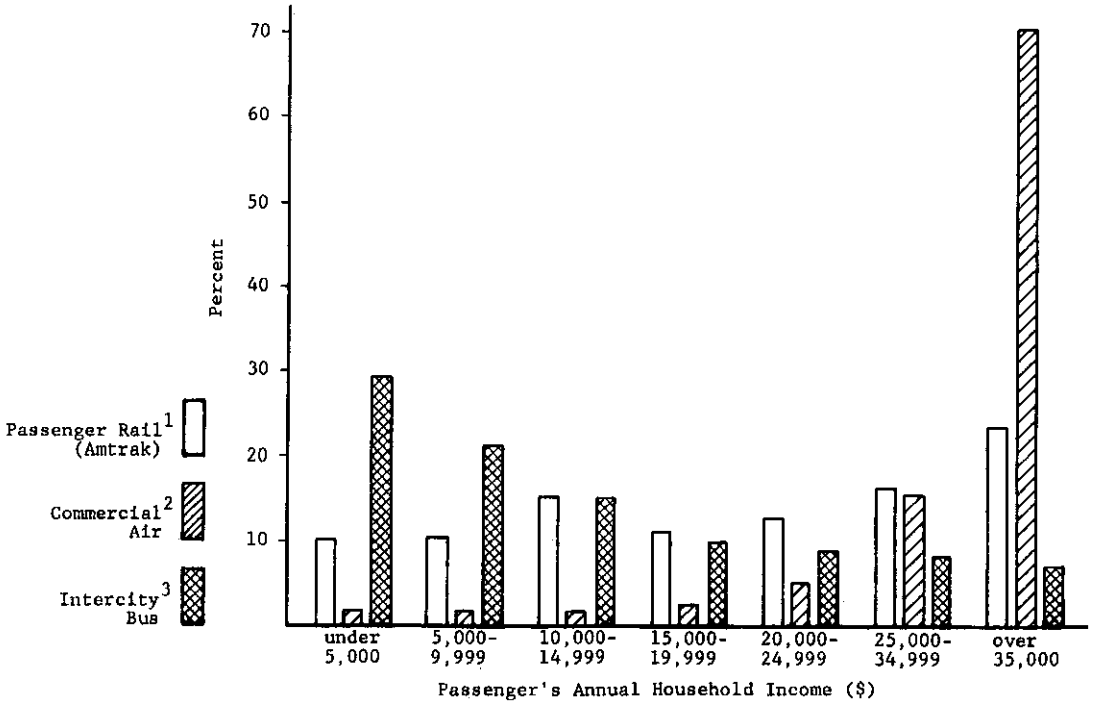
Fig. 4.1 Passenger Sex by Intercity Mode of Travel



SOURCE:

[1]AMTRAK San Joaquin Passenger Survey, 1981; Caltrans, Division of Mass Transportation
[2]EAST/WEST Network Inflight Survey; Audits and Surveys, Inc., Los Angeles, CA, Oct. 1978
[3]1981 California Intercity Bus Survey; Caltrans, Division of Mass Transportation

Fig. 4.2 Passenger Age by Intercity Mode of Travel



SOURCE:

[1]AMTRAK San Joaquin Passenger Survey, 1981; Caltrans, Division of Mass Transportation
[2]EAST/WEST Network Inflight Survey; Audits and Surveys, Inc., Los Angeles, CA, Oct. 1978
[3]1981 California Intercity Bus Survey; Caltrans, Division of Mass Transportation

Fig 4.3 Passenger Income by Intercity Mode of Travel

In fact, intercity bus travel is 21 times safer than automobile travel.[8]

One aspect of safety that does concern the public involves security in bus stations. Intercity bus stations are often located in undesirable, deteriorating areas of cities, and seem to attract vagrants who seek shelter and anonymity in public places. Security guards are often employed to ensure passenger safety. Eliminating the nuisance of undesirables and providing a safe, secure, environment for passengers continues to be a problem for the industry.

Reliability

Reliable intercity bus service is desired by the intercity bus passenger. One important aspect of reliability is on-time service.[9] Passengers indicate that they are more likely to ride a bus that arrives and departs according to schedule. Time spent waiting for a bus usually seems slower than time spent actually riding.[10] On-time service eliminates waiting time at the passenger's origin and makes arrangements easier for meeting passengers at the destination.

System reliability assures passengers of problem-free transportation. Other factors that will enhance the ease of travel include:

- Prompt handling of passengers by ticket agents.
- Proper maintenance to ensure reliable mechanical operation of buses, comfortable bus interiors and comfortable station facilities.
- Handling luggage to reach the proper destination in good condition.
- Helpful assistance from drivers and station attendants.
- Easily accessible, up-to-date schedule information.

Convenience

A number of factors combine to make intercity bus service convenient for the user. Service frequency and scheduling are important to the passenger if they allow a range of travel choices at desirable times. Ease of transfer to other bus systems or modes also increases passenger convenience.

Accessibility to the station is also important. If parking is available close to the station, the frustration of searching for on-street parking and the problem of carrying heavy luggage over great distances are both eliminated. Coordination with public transit and taxi service increases access to stations for persons without an automobile.

The need for a car at the destination and difficulties in carrying luggage make intercity bus travel inconvenient.[11] Luggage can be a special problem for the elderly traveler or the passenger who must travel with much luggage. Station attendants might be able to assist passengers who need help in carrying their luggage. Coordination with car rental companies might also greatly assist passengers who are without local transportation at their destination.

Comfort

Common concerns regarding the comfort of intercity bus travel pertain to the cleanliness of stations and buses, seat comfort, and legroom. In several surveys, cleanliness and seat comfort were the two largest complaints about intercity bus travel.[12,13] Passengers indicated particular concern with the condition of restrooms in stations and on buses.

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[7] Survey of the Attitudes of Intecity Automobile Travelers Toward Intercity Public Transportation, Applied Management Science, Inc., December 1977, p. 326.

[8] Bus Facts, American Bus Association, 1981.

[9] Intercity Bus Riders in Texas, Texas Transportation Institute. Paper presented at TRB annual meeting, January 1982

[10] "Consumer Attitude Toward Transit Services: An Interpretive Review:, Martin Wachs, Journal of the American Institute of Planners, Vol. 42, Number 1, January 1976, p. 98.

[11] Survey of the Attitudes of Intercity Automobile Travelers Toward Intercity Public Transportation, p. 5.8.

[12] Intercity Bus Transportation in Wisconsin.

[13] Intercity Bus Transportation in Oregon, Oregon Department of Transportation, 1976.

Table 4.2

Travel by Unaccompanied Children

CARRIER	AGE REQUIREMENT	FARE POLICY	TRANSFER PROBLEMS	OTHER COMMENTS
PSA	5 yrs. or older.	Ages 2-11: 1/2 fare with adult. Unaccompanied: full fare.	Ages 5-8: No transfers allowed. Ages 8-11: Children secured with ground attendants while waiting.	Child must be met by a guardian or specified adult. Must fill out minor release form. Will try to schedule children on nonstop flights.
AMTRAK	11 yrs. or older. Ages 8-11: Daytime travel allowed with permission of station master. No transfers.	Unaccompanied: Full fare. Family Plan: 1 full, 1/2 fare, and 1/4 child fare or 1 adult full and 1/4 child fare.	Ages 8-11: No transfers allowed.	Children are under station attendants supervision until met by parent. Higher age restriction limits potential for unaccompanied travel.
GREYHOUND	5 years or older.	Ages 5-11: 1/2 fare. Under 5: free with adult.	Drivers will assist as much as possible, however, no special assistance is available.	Driver might discourage young children from unaccompanied travel. Decided on an individual basis. Maturity more important than age.
TRAILWAYS	5 years or older.	Under 12 years: 1/2 fare.	Drivers will assist, but transfers are a problem on long distance trips with many transfer points.	Parent is responsible. Problems increase as number of transfers increase. Drivers help is limited.

Stations and buses must be properly maintained to create a pleasant atmosphere. Passenger room and seat comfort on a bus are important for intercity travel, since passengers must often remain seated for extended periods. Ensuring station comfort can be achieved not only through maintaining facilities, but also through minor remodeling to upgrade appearances and provide a more comfortable wait. Other amenities such as restaurants and gift shops are also valuable to the traveler.

All of the factors previously discussed are of importance to the intercity bus user. These factors should be considered when proposing facility improvements and service changes.

SPECIAL NEEDS

While the intercity bus industry provides excellent service for most people, certain segments of the population have special problems that make intercity bus service difficult for them to use. This section will discuss transportation problems encountered by unaccompanied children and the physically disabled.

Unaccompanied Children

The problem of unaccompanied children is dealt with differently by the three intercity travel modes (see Table 4.2). Airlines are the most capable of handling unaccompanied children. Children are under the supervision of flight attendants while on the plane, and remain in the custody of ground attendants until met by a parent or a designated adult.

Amtrak has more stringent restrictions on the allowable age of children. The conductor and other train employees are able to watch the children during their trip.

However, children placed on intercity buses are least likely to receive special attention. Although drivers will assist children when possible, driver assistance is limited by driving duties. Bus company tariffs usually indicate age requirements for unaccompanied travel, but company policies delegate to drivers the responsibility for accepting or denying transportation. Drivers decide on an individual basis whether the child is "mature and responsible enough" to travel unassisted.

This discretionary policy, allowing the driver the right to accept or reject the child, could have serious implications on long-distance trips where one or more transfers are necessary. It is possible that a child could be accepted for transportation by one driver and left stranded at a transfer point because the second driver refused to take the child. Clear policy decisions will be needed in the future to safeguard the well-being of unaccompanied children.

The provision of traveler's aides to assist unaccompanied children would be useful in ensuring that children board the right bus and make proper connections. This service would be particularly beneficial during holiday periods when greater numbers of unaccompanied children might be traveling to visit relatives. Changes in family structure, due to an increasing divorce rate, may require greater numbers of children to travel unaccompanied to visit families in distant cities. If air fares increase, parents who now choose to send children by air might choose intercity bus travel as an economical alternative. Due to the increasing potential of unaccompanied travel, assistance for unaccompanied children will become increasingly important.

Service for the Disabled

Intercity bus travel is often difficult or impossible for those with mobility problems. Travel problems are particularly significant for those who are restricted to wheelchairs and often encounter physical barriers resulting from inadequate facility design. Many bus stations have not been modified for handicapped accessibility. Station modifications should include:

- wheelchair clearance (wider doors)
- restroom modifications
- curb cuts/ramps
- lowered public telephones/water fountains
- handrails
- tactile and audible signals/ adequate signs
- removal of physical obstructions
- elevators (where needed)

Even with station modifications, the intercity bus still remains an obstacle for those with mobility problems. Both elderly and disabled passengers often require assistance boarding the bus because of high steps and narrow aisles.

Federal and State regulations recognize the importance of protecting the rights of the disabled, and prohibit discriminating practices in the use of federal and State funds. Federal regulations require public transit agencies to provide some degree of accessible service under Section 504 of the Rehabilitation Act of 1973. However, private intercity bus companies which do not receive public financial assistance are not subject to any specific accessibility requirements.

Some carriers have developed programs to assist the disabled. Greyhound initiated its Helping Hand Program in 1975. This program "enables a companion to travel free to assist a handicapped person who needs help boarding, exiting, and traveling on a bus".[14] The Helping Hand Program applies to all Greyhound fares, including any available discount fares. If arrangements are made in advance, Greyhound will assist disabled passengers upon arrival at the terminal, and try to provide seating in the front of the bus.

Until recently, lift technology developed for transit buses was not adaptable to intercity coaches. The lift arms manufactured for transit buses were too short for the higher floors of intercity vehicles. However, several lift manufacturers now provide lifts designed for intercity bus coaches. The lift can also accommodate any person who has trouble climbing steps.

Several bus companies have retrofitted and modified bus interiors to provide accessible service. The California Intercity Bus Service Improvement Program is currently contracting for demonstration service with several intercity bus carriers who have retrofitted buses for full handicapped accessibility.[15] This experience with accessible intercity bus service will provide information that will benefit the industry for future accessible service.

[14] Greyhound Helping Hand.

[15] California Intercity Bus Service Improvement Program: Contract No. 64376 (Amador Stage Lines, Inc.); Contract No. 64556 (Peerless Stages, Inc.); Contract No. 64381 (Coastlines).

Potential Corridors for Accessible Service. A Statewide estimate of disabed persons by county was developed by the Department of Rehabilitation.[16] This information was used to identify areas as where accessible intercity bus services appear beneficial. Those with amputational or orthopedic disabilities would benefit the most from accessible, lift-equipped service. Therefore, this population was used in identifying potential routes for accessible intercity bus service.

The routes listed below would transverse counties which contain 72 percent of California's population with major amputational or orthopedic disabilities. Intercity bus services could be available to many of these disabled if, in addition, local paratransit services were coordinated to provide feeder services (see Figure 4.4).

- San Francisco-Sacramento
- Los Angeles-San Diego
- San Francisco-Monterey
- Los Angeles-Bakersfield (connection with accessible "San Joaquin" train service in Bakersfield)

[16] Estimated Number of Disabled Persons, Aged 16 Through 64 Years, by Major Disabling Condition, for California Counties, as of July 1974. California State Department of Rehabilitation, November 1977.

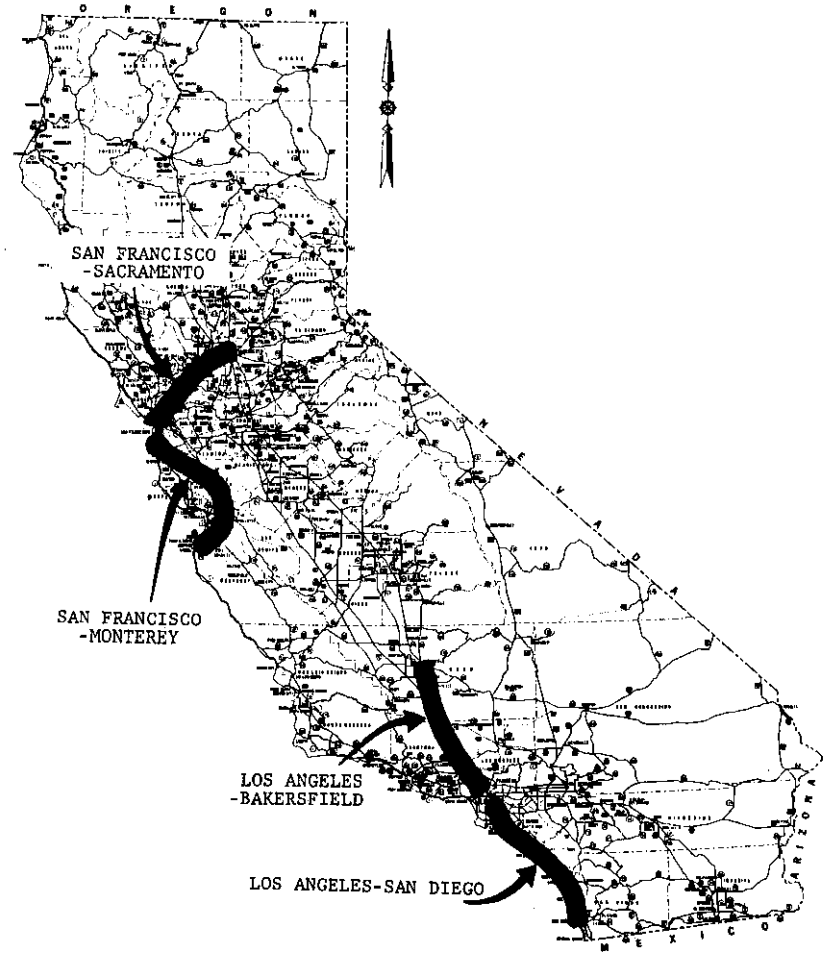


Fig. 4.4 Potential Corridors for Accessible Intercity Bus Service

CONSUMER INFORMATION

Intercity travelers may choose from a variety of modes including the automobile, passenger rail (Amtrak), commercial air service, and the intercity bus.

For those residing in rural areas, the intercity bus is usually the only public transportation service available. Problems in rural travel are often compounded by a need to transfer between two or more bus companies. Unfortunately, public awareness of long-distance bus travel is minimal. Instead of facing confusion and uncertainty of schedules and transfers, most travelers choose the car instead of the bus.

Informing the Public

In order to better inform the public of available public transportation options, information must be provided to increase the awareness of bus services and how they can be used. Questions often needing to be answered include:

- What kind of service is offered?
- Where does the bus go and where does it stop?
- When does the bus arrive and leave?
- How much does it cost?
- How does one catch the bus and buy tickets?

There are a number of ways to provide this information including the use of printed materials, telephone information, and advertisements.

Printed Material. This includes the distribution of maps and schedules which inform the public of major stops along the route and the service schedule. Direct mailing and handbills are also useful to initiate new service or inform the public of service changes.

Telephone Information. Each carrier should have a public information number for route, schedule, and transfer information. Knowledgeable operators and adequate telephone equipment should be available to ensure prompt and accurate responses.

Advertising. This is important in providing public awareness and enhancing the desirability of service. Four major media forms include newspapers, radio, television, and outdoor advertising. Each medium has the potential of reaching different audiences and, therefore, the advertising strategy must be carefully selected with local characteristics in mind. As a rule, newspapers are an inexpensive form of advertising with wide circulation. Radio advertisements are also relatively inexpensive and can be directed at a specific audience depending on the station program format. Outdoor advertising on billboards and bus benches is another inexpensive method of conveying short and concise messages. Television is the most expensive medium, although it can be useful in reaching certain audiences.

Centralizing Consumer Information

The most pressing problem of consumer assistance is the lack of a central authoritative source of information about Statewide transportation. The traveling public is faced with a complex variety of bus lines, connecting services and transfers that are usually known only to local or regular users.

There is currently no effective way to inform potential bus users of the many routes, connections, services, and fares of all local and regional bus systems in the State. Most people do not realize the great convenience and ease of using public transportation to reach and enjoy the great variety of recreational and entertainment sites around the State.

Without adequate information, the user of surface public transportation remains uninformed of transportation choices when traveling outside of his home region. A Surface Transportation Center could provide a valuable service to residents and visitors by coordinating transportation information in one location. A well-publicized information address and a toll-free ("800") telephone number could assist travelers taking long-distance trips across the State. Timely and accurate information would encourage the infrequent traveler to consider available public transportation alternatives.

This chapter has discussed intercity bus user characteristics, problems, and the special needs of certain groups of travelers. Chapter 5 investigates transportation issues of public concern and interest, with particular emphasis on the role of intercity bus service.

5. Public Aspects of Intercity Bus Transportation

The previous chapter discussed the problems and concerns of intercity bus users. Additional problems face not only intercity bus users, but the public as a whole. Transportation issues of public concern and interest is the subject of this chapter. Although individuals are not directly affected by the issues, they are, nonetheless, indirectly impacted.

The following transportation issues are discussed, with emphasis on their relation to intercity bus transportation:

- energy
- environmental quality
- communication and economic growth
- efficient use of available resources
- modal integration
- emergency service planning

ENERGY

The Energy Crisis

Energy Consumption. Although the United States represents but six percent of the world's population, it consumes 30 percent of the world's energy supply.[1] Approximately one-quarter of all energy consumed in the United States is directly attributable to the transportation sector.[2] Furthermore, transportation uses account for 53 percent of total United States oil consumption.[3]

Petroleum and other fossil fuels are nonrenewable resources. Continued depletion of known, accessible inventories could lead to dire future consequences.

Energy Supplies. Both federal and State governments have begun programs to conserve fuel and generate new energy sources. Executive Order 12287, issued by President Reagan on January 28, 1981, eliminated all remaining federal controls on U.S. oil production and marketing (price). Although a minor glut in oil supplies has stabilized or slightly decreased consumer price of fuel in 1981, the price will undoubtedly increase in the future. The extent of this price increase will depend upon many factors, including availability of petroleum imports, degree of energy conservation, and the extent of consumer demand at higher price levels.

Oil consumption continues to deplete available energy resources. Artificial stabilization of oil prices by some oil producing nations has slowed down the search for oil substitutes. The development of these alternatives is essential to meeting future energy needs. An energy shortage and price increase has been predicted for 1983 or 1984 following the present world oil glut and market stabilization of supply and demand factors. A grim scenario, including the potential for a tenfold increase in energy costs by the year 2000, has also been predicted.

Price and Consumer Demand

Elasticity of demand with regard to the price of fuel has been estimated and

[1] Margaret Fulton Fels and Alai L. Kornhawer, A Comparison of the Energy and Resources Required in the Manufacturing of Four Modes of Urban Transportation.

[2] ibid.

[3] ibid.

[4] Elasticity of demand with regard to price is a measure of the responsiveness of a quantity of commodity demanded to a change in market price.

Table 5.1

Effects of Fuel Price Increase on Fuel Demand As Estimated by U. S. Department of Energy

	% Price Increase	% Reduction in Demand
Short term	10	2
(-0.21)	50	8
	100	13
Long term	10	7
(-0.76)	50	26
	100	40

Source: Altshuler, Alan, The Urban Transportation System, MIT Press: Cambridge, Massachusetts, 1979

officially adopted by the U.S. Department of Energy (DOE) as -0.21 (short term, one year) and -0.76 (long term, ten years).4 Table 5.1 shows the effects of various price increases on gasoline demand based on the elasticity demand curve estimated by the DOE.

Although some trips may be forsaken in light of high fuel price, rising energy costs can apparently stimulate a ridership diversion from private automobiles to public transportation. However, transportation energy consumption will only decrease if diverted passengers choose efficient alternative modes.

Energy Efficiency

Modal energy efficiency is directly affected by four factors:

- technology
- system design
- operating conditions
- load factors

Technology. Technological factors which affect energy efficiency include vehicle size, frictional resistance, structural efficiency, thermopropulsive efficiency, emission standards and safety requirements.

System Design. System factors which affect energy efficiency include line haul distance, the amount of urban vs. highway route miles, the number of stops en route, and route circuity.

Operation. Operational factors which affect energy efficiency include load factors, average line haul speed, operating procedures, number of stops, climatic conditions, driver habits, and vehicle condition.

Load Factors. The amount of patronage aboard the vehicles determines overall efficiency. Even though a bus achieves far fewer miles per gallon of fuel than an automobile, the increase passenger load makes it more fuel efficient. Available evidence based upon actual performance indicates intercity bus service to be an extremely energy efficient intercity transport mode currently available. In 1979, intercity buses averaged 144 passenger-miles per gallon (PMG) of motor fuel, while automobiles averaged approximately 42 PMG (see Table 5.2).

Of particular interest is the extensive feeder network necessary to transport passengers to train terminals and commercial airports. According to on-board passenger surveys of intercity bus riders, train users, and commercial airline passengers, the dominant travel mode to and from the intercity transport mode is the automobile.

Indirect Energy Consumption. Analysis of energy usage by the transportation sector necessitates consideration of both direct and indirect energy consumption. In public and private transportation, energy is not only consumed in vehicle operation, but also through the construction and maintenance of vehicles, station facilities, roads, and guideways. The

Table 5.2

Energy Efficiency and Intensity
Bus vs. Automobile

	1972	1973	1974	1975	1976	1977	1978	1979
Passenger Miles per Gallon of Motor Fuel								
Intercity Buses								
All service[1]	132	133	145	140	137	140	141	144
Regular-route intercity service	111	115	121	115	110	115	113	116
Charter and special service	201	201	208	208	208	203	201	208
Automobiles	40	39	40	41	41	41	42	N/A

N/A - Information not available.
1 In terms of bus miles per gallon, the estimated averages are: 1972-6.0, 1973-6.0, 1974-6.2, 1975-6.2, 1976-6.1, 1977-6.0, 1978-6.0, and 1979-6.0.

Sources:
Intercity Buses - Estimated by American Bus Association on basis of carrier reports to Interstate Commerce Commission, unpublished carrier data and intra-industry relationships.
Automobile - Table VM-1 of Federal Highway Administration, Environmental Protection Agency figures, and estimated relationships. Average load is estimated at 2.5 passengers an estimate based on data reported by the Federal Highway Administration in its Nationwide Personal Transportation Study (1972) for automobile trips of more than 20 miles. Average vehicle miles per gallon for intercity travel are estimated as follows: 1972-16.2, 1973-15.8, 1974-16.2, 1975-16.3, 1976-16.5, 1977-16.6 and 1978-16.7, based on overall fuel consumption figures (per vehicle mile) reported by the Federal Highway Administration on its Table VM-1, allocated to local and intercity travel according to the comparative patterns for fuel efficiency for new automobiles reported by the Environmental Protection Agency and by the Department of Energy. Energy intensities (BTU's per passenger mile) estimated from energy efficiencies (passenger miles per gallon) at conversion factors of 138,700 BTU's per gallon of diesel fuel, 125,000 for automobile gasoline, and 135,000 for aviation jet fuel.

former is commonly referred to as direct energy consumption and the latter as indirect energy consumption. Whereas the transportation sector is considered to consume approximately one quarter of all energy consumed in the United States, the addition of estimates of indirect energy consumption raises this figure to approximately 40 percent.

The two largest components of indirect energy consumption are the construction of vehicles and guideways on which the vehicles travel. The largest energy consumption portion in the manufacture of vehicles is for metallic components (see Table 5.3). With respect to guideways, an estimated 4.6 million kwh/lane-mile (kilowatt hours) go into highways and 25.0 million kwh/single-track mile for rapid rail systems.

Complete analysis of actual energy costs would also include amortization of total indirect energy into energy consumption rates and estimates of yearly and life-time use of system vehicles and infra-structure. See Table 5.4 for an example of estimates of indirect energy consump-tion for a bus and an automobile.

Direct Energy Consumption. Energy analysts see little potential for improving the direct fuel efficiency of intercity buses through technological improvements. The present diesel engine used in intercity buses is considered quite fuel efficient. However, areas which do offer some potential improvement include reduced aerodynamic drag and road friction, as well as improvements in engine and drive train design.

Potential for Increased Load Factors. Economic regulation often requires the inefficient use of intercity bus vehicles on certain routes. For example, inter-city bus service averaged 6.0 and 6.2 bus miles per gallon of fuel between 1972 and 1979. A busload of 17 passengers will make an intercity bus trip fuel efficient (passenger miles per gallon) in compari-son with other transportation alter-natives. However, economic regulation requires carriers to provide low demand service on rural routes in exchange for monopoly rights on more lucrative, high density corridors. Furthermore, larger carriers find it desirable to operate and maintain full-size diesel coaches without a mix of smaller gasoline-powered

Table 5.3

Energy Consumption for the Manufacture of an Automobile, Transit Bus, Rapid Rail Car, and Intercity Bus

Type of Vehicle	Automobile	40-Foot City Bus	Rapid Rail Car	Intercity Bus
Vehicle Weight (lbs)	3,545	18,865	58,250	27,000
Energy Contributions (kwh):				
Manufacture of Metallic Materials	26,300	208,000	855,000	298,000
Manufacture of Other Materials	1,200	11,800	51,300	17,000
Fabrication of Parts and Assembly of the Vehicle	9,400	74,400	305,200	106,000
Transportation of Materials and of the Assembled Vehicle	900	5,800	20,000	8,300
Total Energy to Manufacture New Vehicle (Kwh)	37,800	300,000	1,231,500	429,300

Sources: Figures for automobile, city bus, and rapid rail car obtained from A Comparison of the Energy Resources Required in the Manufacturing of Four Modes of Urban Transportation, by Margaret Fulton Fels and Alain L. Kornhauser.

Figures for Intercity Bus derived by staff of California Department of Transportation on basis of average vehicle weight.

vehicles. Among the reasons cited are flexibility in vehicle assignment; conformity in driver training and familiarity; standardization of maintenance (tools, parts and skills); and development of economies of scale through use of one type of equipment.

Regulatory reform would allow for greater freedom of market exit and entry, and would afford existing intercity bus operators and new market entrants the opportunity to efficiently allocate resources based upon market demand. Carriers who operate small fuel efficient vehicles would be able to enter markets from which they have been previously restricted. Other carriers would be able to leave markets which they could not efficiently serve. Overall, the greater market freedom and competition resulting from regulatory reform would allow more efficient use of existing energy resources.

Emergency fuel supplies. President Reagan's Executive Order 12287 which decontrolled petroleum products included termination of "Special Rule 9" which gave priority fuel allocation to public transportation operators. Through this allocation standard, public transportation systems were assured of 100 percent of their fuel requirements. As of November 1981, transportation operators are totally dependent upon their suppliers for fuel, with no special provisions in case of energy shortages. In addition, local government officials and transportation agencies have no authority over fuel allocation. This leaves two options: develop fuel storage capacity or obtain fuel allocation authority.

Local governments and transit agencies may store and stockpile fuel for allocation during emergency situations. Stored fuel would supplement the difference between the amount available from a supplier before and during fuel shortage periods. Stockpiles could also be used to increase the operations of transit systems which require additional fuel to cope with increased ridership during gas shortages. However, most small, intercity bus operators do not generally have the funds or the facilities to stockpile reserve fuel. In fact, many use local service stations.

The American Bus Association, spokesman for much of the intercity bus industry, favors Congressional approval of a comprehensive energy policy which would include the following key elements:

Table 5.4

Intercity Bus and Automobile Indirect Energy Efficiency

Items of indirect energy	Bus, urban portion of intercity trip	Bus Intercity	Auto, urban portion of intercity trip	Auto intercity
Energy required to produce fuel	12.6% of direct energy	12.6% of direct energy	19.5% of direct energy	19.5% of direct energy
Vehicle production	31 BTU/S.M.	31 BTU/S.M.	282 BTU/S.M.	282 BTU/S.M.
Vehicle maintenance	79 BTU/S.M.	79 BTU/S.M.	176 BTU/S.M.	176 BTU/S.M.
Infrastructure Construction				
- Terminals	8,667 BTU/ Pass. dept.			119.6 BTU/ S.M.
- Roads	48 BTU/S.M.[a]	26 BTU/S.M.	154 BTU/S.M.	
Infrastructure Operation and maintenance				
- Terminals	15,000 BTU/ Pass. dept.	---	---	
- Roads	11 BTU/S.M.	2.6 BTU/S.M.	46.6 BTU/S.M.	12 BTU/S.M.

NOTES: 46 seater bus.
Intermediate size automobile (five seats).
[a] Assumes 50 percent expressway, 50 percent arterial in urban portion of intercity travel.

Source: Intercity Passenger Transportation: Energy Consumption Characteristics, A.M. Kahn; June, 1980.

- acknowledgement of a governmental role in dealing with crude oil shortages.
- recognition of the critical role of bus transportation in moving people and goods during a petroleum disruption.
- development of a strategic petroleum reserve for use during short-term crude oil shortages.
- development of a standby allocation mechanism that can be applied in the event of a major shortfall.
- federal preemption of inconsistent provisions of State or local government programs for the allocation and pricing of crude oil or any refined petroleum product.

The Standby Petroleum Allocation Act of 1981 (S. 1503) is being considered by Congress. The bill would provide the President with the power to implement a standby regulation providing for the mandatory allocation of crude oil, residual fuel oil, and any refined petroleum product following declaration of a severe petroleum supply shortage. Presidential action would provide for maintenance of public services and essential needs. No indication of a priority status for transportation is cited, however.

Energy and Intercity Bus Service

In practice, intercity bus service has been shown to be an extremely energy efficient intercity travel mode. Energy supplies will continue to be subject to disruption and shortages while the consumer price of fuel will increase. The public interest can best be served by maintaining and increasing intercity bus service. Doing so would ensure the traveling public of an affordable, efficient nationwide transportation alternative.

ENVIRONMENTAL QUALITY

Environmental degradation caused by the transportation sector is an issue of public interest and concern. Environmental problems can be summarized in the following categories:

Table 5.5

Effects Attributed to Specific Pollutants

Air Pollutant	Effect
Particulates	Speed chemical reactions; obscure vision; corrode metals; cause grime on belongings and buildings; aggravate lung illness.
Sulfur oxides	Cause acute and chronic leaf injury; attack wide variety of trees; irritate upper respiratory tract; destroy paint pigments; erode statuary; corrode metals; ruin hoisery; arm textiles; disintegrate book pages and leather.
Hydrocarbons (in solid and gaseous states)	may be cancer-producing (carcinogenic); retard plant growth; cause abnormal leaf and bud development.
Carbon monoxide	Causes headaches; dizziness; nausea; absorbed into blood, reduces oxygen content; impairs mental processes.
Nitrogen oxides	Cause visible leaf damage; irritate eyes and nose; stunt plant growth even when not causing visible damage; create brown haze; corrode metals.
Oxidants: ozone	Discolors upper surface of leaves of many crops, trees, shrubs; damages and fades textiles; reduces athletic performance; hastens cracking of rubber; disturbs lung function; irritates eyes, nose throat; induces coughing.
PAN (Peroxyacetyl nitrate)	Discolors lower leaf surface; irritates eyes; disturbs lung function.

Sources:

HEW, National Air Pollution Control Administration, The Effects of Air Pollution, No. 1556, revised 1967.
NAPCA, Air Pollution Injury to Vegetation, No. AP-71, 1970.
American Association for the Advancement of Science, Air Conservation, Pub. No. 80, 1965.
National Tuberculosis and Respiratory Disease Association, Air Pollution Primer, 1969.
Dickey, John W., Metropolitan Transportation Planning, Scripta Book Co.: Washington, DC, 1975, p. 60.

- air quality
- noise pollution
- aesthetic conditions

Intercity bus service offers the potential for better air quality and less noise pollution through diversion of travelers to efficient intercity buses. Per capita air and noise pollution output per passenger is usually low for intercity bus transportation.[5] Furthermore, intercity buses use existing roadways designed for auto traffic and truck loads, and require no new fixed guideway development.

Air Quality

Deteriorating air quality has often been blamed upon the transportation sector. Available evidence supports this conclusion. In 1968, transportation sources contributed 42.3 percent of the 213.8 million tons of emission, including 63.8 tons of carbon monoxide, 16.6 tons of hydrocarbon, and 8.1 tons of nitrogen oxide.[6] See Table 5.5 for brief descriptions of effects attributed to specific air pollutants.

[5] Based upon a comparison of air and noise pollution production and annual passenger miles by intercity travel

[6] Dickey, John W., Metropolitan Transportation Planning. Washington, DC: Script Book Co., 1975 pp. 60.

Intercity Bus Pollution Emission Standards. Air pollution emission controls for vehicles operating in California are more restrictive than federal Environmental Protection Agency (EPA) standards. The 1981 federal emission standard for heavy-duty engines (buses and trucks) was ten grams per brake horsepower hour. By contrast, the 1981 California standard was six grams per brake hour, with a scheduled reduction to 4.5 in 1984. Interstate carriers with terminal facilities in other states may take title (delivery) of buses outside of California while using buses within California. Registration fees are then payed on a pro rata scale, based upon the amount of mileage the bus has been used in California.

Discussion of these dual standards by the federal Environmental Protection Agency and the State has focused upon the issues of:

- fuel economy
- performance
- minimal emissions impact

Fuel economy. General Motors Corporation estimates a fuel penalty of three and one-half percent for California certified engines based upon computer and road tests with both federal and California engines.[7]

Performance. Manufacturers are producing California certified engines with torque and horsepower equal or greater than similar federal engines.[8]

Minimal emission impact. In rural areas, air quality is generally good. Excessive restrictions on public transportation providers may be unnecessary. In urban areas with poor air quality, the cost effectiveness of the California engines with regard to decreased emissions is impressive. However, most large intercity bus carriers serving the major urban areas are exempt from California emission standards through their interstate operations.

Senate Bill 274 (1981), was passed and allowed to become law without the Governor's signature. it permits local public transit operators to purchase buses with "federal" engines. Private bus operators were not included in the final bill passed.

Noise Pollution.

Motor vehicles can create six kinds of noise: propulsion (e.g., engines, gears, transmissions, and exhausts), road and tire, horns, brake squeal, door slamming, and loose loads. Excessive noise can be harmful to the human hearing system. Permanent hearing damage can result to individuals exposed to continuous high decibel levels. Also, general traffic noise can create a major nuisance, impairing office and business efficiency. See Table 5.6 for a listing of decibel levels for major transportation modes.

Aesthetic Quality.

Transportation facilities have sometimes degraded the State's landscape through poor appearance and visual intrusion. In urban areas, transportation uses often consume more space than other land uses.

COMMUNICATION AND ECONOMIC GROWTH

Travel modes available in California serve a variety of trip purposes; including home-to-work, shopping, health care, education, and other essential trips. The general availability of good transportation is necessary for economic growth. Its absence can impair the economic stability and vitality of a community.

Intercity bus service is widely available in California--more so than any other public transportation mode. It provides needed movement of passengers and goods, and for many communities, the intercity bus remains the only public transportation alternative available.

[7] Report of the Air Resources Board concerning the petition of Southern California Rapid Transit District for relief from California Motor Vehicle Emission Control Standards and to consider impacts of requiring engines in all California buses to meet standards no more stringent than applicable federal standards, August 1981.

[8] ibid.

Table 5.6

Average Noise (Sound Pressure) Levels of Some Transportation Sources

Source	Decibel Level	Source	Decibel Level
Heavy trucks	86	Subway train	90
Motor buses (starting)	85	Old street cars	88
Trolley buses	75	Railroad trains (diesel, steam)	85
Light trucks	74	New PCC cars	75
Automobiles	71	Electric railroad trains	75
20,000-lb. thrust 4-engine jet airliner at takeoff (500 ft. away)	115	10,000 MP 4-engine propeller aircraft at takeoff (500 ft. away)	99

*At 300 cps re 0.0002 microbar. Measurements made 20 ft. from source except in the case of steam and diesel trains. Adapted from C. M. Harris (ed.), Handbook of Noise Control, McGraw-Hill, New York, 1957, pp. 35-2, 35-3.

N.B.: The 60 decibel level is considered the normal conversation level. The 80 decibel or higher level over continuous periods can produce loss of hearing.

EFFICIENT USE OF AVAILABLE RESOURCES

Private Intercity Carriers and Public Highways

Public roads and highways in California represent an enormous financial investment. The public interest can best be served by maintaining this existing investment and by its efficient use. Intercity bus travel, as previously noted, is an energy efficient transport mode that uses public highways. Private carriers, for the most part, provide vehicles and stations. Intercity bus service is characterized by private carriers that pay use taxes and provide extensive, affordable service without direct public financial assistance. Through continued and enhanced use of intercity bus service, this mode will efficiently serve the public and play an important role in extending use of public funds. This is extremely important in a time of governmental fiscal frugality.

Transportation Systems Management

Available resources can be more efficiently utilized to improve intercity bus transportation through transportation systems managment (TSM) techniques. TSM techniques are characterized by a low-capital cost orientation. Actions usually require less than one year to plan and implement. They are usually considered experimental, and subject to short-term analysis and immediate modification. TSM is gaining popularity as a result of the escalating costs of large projects, public resistance to new construction, increasing competition for limited funds, governmental goals of efficiency and equity, and the need for flexibility. Within urban areas, TSM techniques, such as priority lanes on freeways and city streets, have already been successfully implemented. Innovative techniques for using State highway resources to improve intercity bus transportation should be considered. For example, excess lands owned by the State could be used by intercity bus carriers for bus storage, and pick-up and discharge points.

MODAL INTEGRATION

Inefficient, duplicative service often results from a lack of coordination. The results are inefficient, wasteful resource expenditure. Governmental planning and program implementation should

work to increase coordination, wherever feasible, and to promote modal integration toward creation of a "balanced transportation" network.

Balanced transportation is characterized by the following elements:

- capacity: supply should be proportional to average demand (when all modes are considered) at all points in the system, to include trunkline and feeder interfaces.

- directionality: two-way travel should be possible along service corridors. Within reasonable geographic limits, travel should be possible in any cardinal direction.

- mix of service classes: passenger travel accommodations should range from: "no frills" to "luxury"; scheduled to demand-responsive; and group travel to individual service.

- alternate service patterns: speed and convenience may be offered through a mix of nonstop, express, and local schedules serving long-distance and regional travelers.

- time of service: convenient arrivals and departures along service corridors and at major traffic centers should reflect preference for daytime schedules, consistent with demand and service frequency.

If a balanced State transportation network is to be achieved, the various transport modes will have to be studied and continuously analyzed to ensure maximized, efficient use of each.

EMERGENCY SERVICES PLANNING

Californians are faced with a variety of natural and man-made emergency situations including coastal and tule fogs, forest fires, earthquakes, and the need to transport thousands of refugees.

Although the intercity bus industry cannot prevent disasters from occurring, its ability to respond swiftly to emergency situations has already been demonstrated. Within minutes of the January 1979 BART tube fire a single private intercity bus carrier provided 40 intercity coaches to transport stranded Bay Area commuters. In the following four months, private fixed route and charter party carriers combined forces with local transit companies to provide daily commuter service while BART underwent repairs.

There have been many other examples of quick response by the intercity bus industry. Bus services have long been transporting stranded air travelers at airports closed by fog. Charter and intercity bus carriers are often used to take firefighters quickly to firelines. Currently, Co-ordinators Special Operations Group, a private organization with experience providing emergency intercity bus service, is assisting the Governor's Ground Transportation Committee in developing plans for emergency preparedness.

In this chapter, aspects of transportation which are of public interest and concern were discussed in relation to intercity bus service. In the following chapter, the State's role with intercity bus transportation is addressed.

6. The State Role

In an age of economic recessions, unbalanced public budgets, and undependable fuel supplies, State government is challenged with efficiently using existing resources to advance its public transportation goals. This chapter discusses current State involvement with California's intercity bus services. Included are brief descriptions of the roles and responsibilities of the California Public Utilities Commission, the California Highway Patrol, the Air Resources Board, and the California Department of Transportation.

CALIFORNIA PUBLIC UTILITIES COMMISSION

The California Public Utilities Commission (PUC) regulates private intercity bus operations within California. It controls market entry and exit, changes in fare structures, insurance coverage, and maintenance of adequate services. It also oversees mergers. The PUC is the major State governmental agency overseeing bus operations. Its regulatory powers stem from the State Constitution and are detailed by the California Public Utilities Code.

Entry

During the last decade, the PUC has pursued a trend toward liberal entry policies. However, the Commission is constrained by restrictive elements in the California Public Utilities Code. Specifically, Article 2, Section 1032 of the California Public Utilities Code states the following:

> Every applicant for a certificate shall file in the office of the commission an application therefor in the form required by the commission. The commission may, with or without hearing, issue the certificate as prayed for, or refuse to issue it, or issue it for the partial exercise only of the privilege sought, and may attach to the exercise of the rights granted by the certificate such terms and conditions as, in its judgment, the public convenience and necessity require. The commission may, after hearing, issue a certificate to operate in a territory already served by a certificate holder under this part only when the existing passenger stage corporation or corporations serving such territory will not provide such service to the satisfaction of the commission. (Former Sec. 50-1/4, 3rd sent.)

This affirms the monopoly rights carriers have over routes and prevents competitive service. Seldom does the Commission grant new authority over routes already receiving service on the basis that the current service provider is not providing service to the "satisfaction of the Commission."

Exit

The State's perspective on exit, as well as entry and adequacy of service, is tempered by local conditions. Intrastate bus service is often the only public transportation to a rural area. If it were terminated, regions would be without public transportation. The PUC has been reluctant to put a region in such a position.

Fares

The PUC is empowered with rate setting responsibilities for intercity bus carriers providing service in California. Carriers must file tariff schedules and submit a formal application for all fare adjustments. When fare changes are requested, the PUC examines the carrier's systemwide profit.

The PUC has discretionary authority to approve or deny fare modification requests for particular routes or for the carrier's entire intrastate service.

Insurance

The California Public Utilities Commission requires all certificated passenger stage corporations and charter party carriers to maintain a minimum level of insurance coverage. Verification of this coverage must be filed with the Commission. A minimum coverage of $100,000 for bodily injury or death to one person is required no matter the size of vehicle operated. Coverage for bodily injury or death for all persons in one accident ranges from $300,000 to $700,000 depending on vehicle size. Coverage against property damage from any one accident must be a minimum of $50,000. Single limit coverage ranges from $350,000 to $750,000, dependent on size (see Table 6.1).

Adequacy of Service

The PUC and the general public must be notified of all schedule changes desired by a common carrier at least 30 days prior to their proposed enactment. The Commission may also prescribe and determine changes in schedules as it finds necessary. Annual Reports providing the previous year's statistics, including operating costs and revenues, passengers carried, and bus miles traveled, are to be submitted to the PUC by March 31. Some carriers do not adhere to this requirement, however, as Annual Reports are often incomplete, if submitted at all.

The Interstate Commerce Commission (ICC) has regulatory duties similar to the PUC but at the federal level. The ICC oversees interstate intercity bus service.

The distinction between PUC and ICC authority is simple until both intra- and interstate passengers are carried on the same bus. Bus service between Reno, Nevada and San Francisco, via Sacramento, would be an example of this condition. Trips made between San Francisco and Sacramento would be under the PUC's authority and fare structure. Trips between San Francisco and Reno, however, would be under the jurisdiction of the Interstate Commerce Commission.

CALIFORNIA HIGHWAY PATROL

Safe and lawful operation of motor vehicles is the primary concern of the California Highway Patrol (CHP). Protection of the State's highways is another CHP duty. The CHP may create and enforce rules and regulations deemed necessary to fulfill these responsibilities. These duties are defined in the California Administrative Code, California Motor Vehicle Code, and the California Education Code. Basic regulations affecting intercity bus operations include vehicle size and weight requirements, minimum maintenance and operation standards, and limits on drivers' hours on duty. These regulations are enforced through three programs:

On-terminal Inspection Program

ICC and PUC certificated bus companies operating within California must be inspected at company maintenance facilities or terminals at least once every 13 months. Specially trained members of the CHP examine a representative sampling of each carrier's buses for proper maintenance of brakes, lamps, connective devices, steering and suspension, and tires and wheels. Drivers' logs are also inspected.

Should a violation be found, the carrier is given a warning and must sign a statement saying that the deficiency will be corrected. Few violations result in fines. Carriers actually value having their vehicles inspected by an outside specialist.

School Pupil Activity BUS (SPAB) Inspection Program

Many bus companies provide charter service for school activities such as student field trips and sporting events. All vehicles used in transporting pupils must be certified as meeting safety standards at least once every 13 months.

On-road Patrol

Any vehicle operating in an unsafe or unlawful manner is subject to enforcement action by highway patrol officers. This includes intercity buses. However, patrol officers hesitate to stop buses for minor offenses that are clearly not hazard producing as passenger safety may be jeopardized, traffic flow disrupted, and passengers delayed.

The efforts of the California Highway Patrol are coordinated with the federal Bureau of Motor Carrier Safety (BMCS). The BMCS has similar safety responsibilities but emphasizes education rather than enforcement.

Table 6.1

California Public Utilities Commission Insurance Requirements for Passenger Stage Corporations and Charter Party Carriers

Kind of Equipment (Passenger Seating Capacity)	For bodily injuries to or death of 1 Person	For bodily injuries to or death of all persons injured or killed in any one accident (subject to a maximum of $100,000 for bodily injuries to or death of one person)	For loss or damage, in any one accident to property of others (excluding cargo)	Limit Coverage	For loss or damage of owned vehicles
7 passengers, or less	$100,000	$300,000	$50,000	$350,000	
8 to 12 passengers, incl	100,000	350,000	50,000	400,000	
13 to 20 passengers, incl	100,000	450,000	50,000	500,000	Actual
21 to 30 passengers, incl	100,000	500,000	50,000	550,000	Cash
31 to 40 passengers, incl	100,000	600,000	50,000	650,000	Value
41 passengers or more	100,000	700,000	50,000	750,000	

Source California Public Utilities Commission General Orders 101-C and 115-B.

DEPARTMENT OF MOTOR VEHICLES

The Department of Motor Vehicles is in charge of registering all buses and licensing their operators. These duties are defined in the California Motor Vehicle Code. To legally operate an intercity bus, company employees must hold a Class 1 or 2 drivers' license and a valid medical certificate. Should the driver's duties include operation of a school pupil activity bus, he or she must obtain a schoolbus driver's certificate. To qualify for this certificate, the driver must pass an examination conducted by the California Highway Patrol.

AIR RESOURCES BOARD

Title 13 of the California Administration Code details specific requirements for motor vehicles with respect to emission standards, pollution control devices, fuel and fuel additives, and openings for fuel tanks. Engines used in buses are subject to compliance testing and certification by the Air Resources Board (ARB). The Environmental Protection Agency, ARB's sister organization at the federal level, has similar responsibilities.

CALIFORNIA DEPARTMENT OF TRANSPORTATION

The California Department of Transportation (Caltrans) was established as a multimodal planning agency in 1972. Authorizing legislation (AB 69, Deddeh) mandated that the Department develop a balanced and integrated transportation system. The Alquist-Ingalls Act (AB 402, Chapter 1106) of 1977 further refined the State transportation planning process.

Caltrans' Mass Transportation Program operated with a $127 million budget in Fiscal Year 1980-81. One percent of that was dedicated to intercity bus transportation (see Table 6.2). The State highway budget for the same year was $1.7 billion.

Since 1976, Caltrans has initiated several projects involving intercity bus operators. These are authorized by the California Government Code. Projects are generally designed to improve intercity bus service and complement the services of other intercity travel modes.

Table 6.2

Mass Transportation Program

1980-81

($1,000)

FULL MOBILITY TRANSPORTATION	$ 763
TRANSIT OPERATOR ASSISTANCE	95,502
INTERREGIONAL PUBLIC TRANSPORTATION	16,499
BUS TRANSPORTATION ($1,431)	
RAIL TRANSPORTATION ($15,068)	
TRANSFER FACILITIES AND SERVICES	10,416
TRANSPORTATION DEMONSTRATION PROJECTS	1,987
ADMINISTRATION	753
WORK FOR OTHERS	1,273
TOTAL	$ 127,193

Source: Presentation before the California Assembly Committee on Transportation by Adriana Gianturco, Director, California Department of Transportation, February 10, 1981.

Note: These figures do not include programs falling under the Special Transportation Budget.

Feeder Bus Program

Caltrans has cooperated with Amtrak to contract with private intercity bus operators for dedicated service between Sacramento and the San Joaquin Amtrak terminal in Stockton, and Los Angeles and the San Joaquin Amtrak terminal in Bakersfield. Contracts were made with the lowest bidder.

Intermodal Facilities Program

Caltrans, in conjunction with other public agencies, provides funding for the planning and construction of intermodal facilities. This Program is designed to improve connections between the transportation modes, including intercity buses. By removing some of the financial risk for providing interfacing service, Caltrans encourages service coordination between various modes.

California State Transportation Map

In 1980, Caltrans published a unique transportation map making public travel by bus (and other forms of public transport) easier. By displaying the routes of all California intercity public transportation services, the public became aware of transportation alternatives to the private automobile.

Intercity Bus Service Improvement Program

In Fiscal Year 1979-80, Caltans initiated the Intercity Bus Service Improvement Program. Nine demonstration projects were awarded financial assistance for new, expanded, or innovative intercity bus service. A tenth service received funds for marketing assistance. The Program was continued the following year, and included financial assistance for handicapped accessible intercity bus service. The Program, currently in its third cycle, provides financial assistance to the carrier's "break-even" point. This allows the intercity bus operator to be innovative without fear of financial loss due to market uncertainty.

The State's role in intercity bus transportation has traditionally been limited to regulation and limited public subsidization for service improvements. To help focus the State's role in future intercity bus operations, a system for identifying intercity bus routes of Statewide significance has been developed. This is the subject of Chapter Seven.

7. The Basic State Intercity Bus Network

If the Department of Transportation, as charged by the Legislature, is to define a role in intercity bus transportation, some means of concisely identifying the limits of the State's role must be devised.

To give the State bus system a rational basis upon which to grow or be preserved, the concept of a Basic State Intercity Bus Network is presented. This network will serve to promote efficient and coordinated placement of bus infrastructure (for example, intermodal terminals, roadside shelters, turnouts) and to guide the development of new services with systematic allowances for route abandonments.

This Plan recommends the general locations and characteristics of a Basic State Intercity Bus Network and identifies weak and missing links in the system as now provided by individual carriers regulated by the California Public Utilities Commission. The Network will assist the Legislature by presenting an equitable, rational basis for determining proper allocation of public monies to facilitate development of bus infrastructure, marketing and consumer services, or operating assistance. In addition, the Network will increase the effectiveness of the Department of Transportation to administer intercity public transportation programs as well as to prepare for and carry out long-range actions which appropriately reflect the multimodal transportation needs of California.

NETWORK CRITERIA

The Basic State Intercity Bus Network creates an integrated bus service system that ties together locations of Statewide importance while building upon the public investment in the California Freeway and Expressway System.

The network criteria exhibit two basic characteristics. First, each criterion is objective; it must be based upon empirical data easily verified by other parties. For this reason, subjective projections such as traffic forecasts are inappropriate. Second, the criteria must produce a network which can, for the most part, be replicated. Other parties using identical criteria should arrive at substantially the same network as presented in this Plan.

The criteria developed by the Department of Transportation for the Basic State Intercity Bus Network have been measured against the characteristics cited above, and are as follows:

(1) Seats of County Government. The first major territorial subdivision for local government within the State is the county seat.

(2) Market Centers. Within a county, the place that generally serves as the market center and exhibits economic influence over the surrounding region is the largest city in the county.

(3) Major State Travel Corridors. Major State travel corridors reflect interstate and intrastate travel demands involving essential movement of people and goods.

(4) Travel Centers. The smallest city capable of supporting a minimum level of intercity bus service is typically one with no less than 5,000 population.

(5) Quality Roadways. Long-distance, high-speed bus travel is most suited to the highways with multiple lanes, controlled access, and gentle alignments that form the California Freeway and Expressway System.

(6) Established Bus Service Territories. Strong indication of bus need is demonstrated by routes now being served by the intercity bus industry.

(7) National and State Parks. Many National and State parks represent major travel generators accommodating the recreational needs of Californians.

Seats of County Government

County seats of government serve as the political and cultural focus for geographical subdivisions of the State. The 58 counties are given responsibility for supervising many State functions at the local level, as provided for in the laws and Constitution of the State.

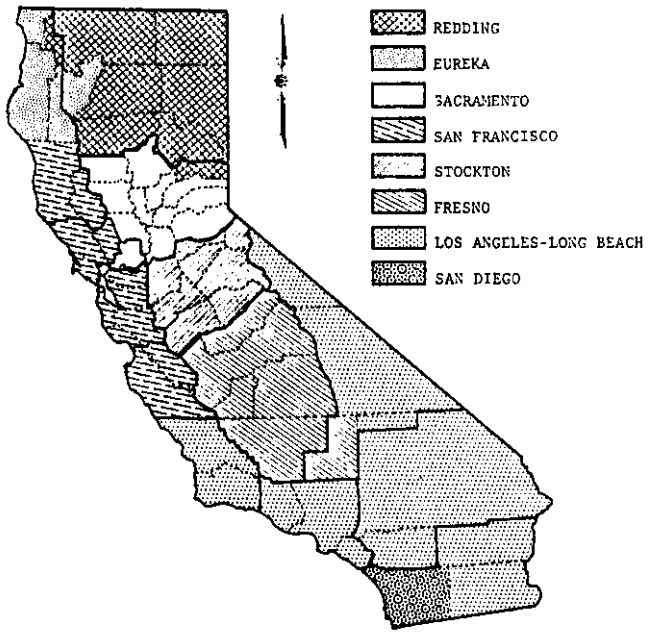
All county seats are served by State highways and most are on the California Freeway and Expressway System. In 1980, only two county seats (Downieville, Markleeville) did not receive regular intercity bus services (they also had no Amtrak or commercial air service).

Market Centers

The economic center of a county or region may be a city other than the seat of county government. Trade in manufactured products, agricultural goods, and professional services make market centers of extreme importance to the well-being and overall economic development and growth of the State. Transportation links to these cities are essential to economic activity. Figure 7.1 shows California's eight "economic areas" as determined by the U.S. Department of Commerce. The breakdown of counties into these areas is based upon "central place theory" analysis, wherein larger cities are considered to be hubs of all economic activity. Area boundaries and major hub cities in each area give important clues as to appropriate network routing from a State perspective. The only county whose largest city is not served by intercity bus is Sierra (Loyalton).

Major State Travel Corridors

Major travel corridors within California can be used to indicate transportation patterns and to determine service needs. Figure 7.2 shows major travel corridors across California, serving a combination of in-State and out-of-state travel.



SOURCE: Bureau of Economic Analysis, U.S. Department of Commerce

Fig. 7.1 California Economic Areas and Caltrans Districts

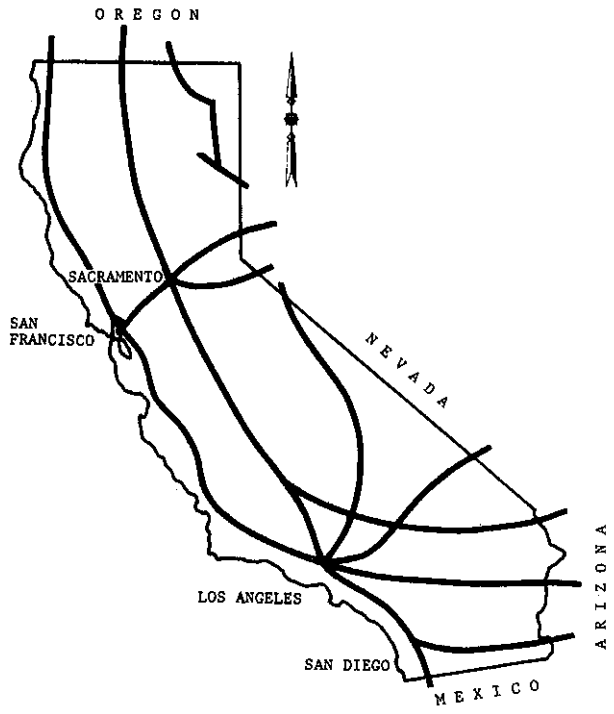


Fig. 7.2 Major State Travel Corridors

Most all major travel corridors receive intercity bus service, while many are also served by passenger rail and commercial air service. Figure 7.3 shows the passenger rail network in California. Airports designated as "baseline case air carrier airports" (i.e., all commercial airports as of 1980) are shown in Figure 7.4.

Travel Centers

Only when a sufficient amount of intercity passenger traffic is generated at a city does bus service to distant locations become profitable. Although the number of residents cannot fully account for a community's propensity to use public transportation service, the smallest size city generally felt capable of supporting regular intercity bus service is one of about 5,000 inhabitants. A city this size has historically been a cutoff point for some federal funding programs (Title 13, U.S.C.). The American Bus Association has cited the

Fig. 7.4 California Aviation System Plan Baseline Case Air Carrier Airports

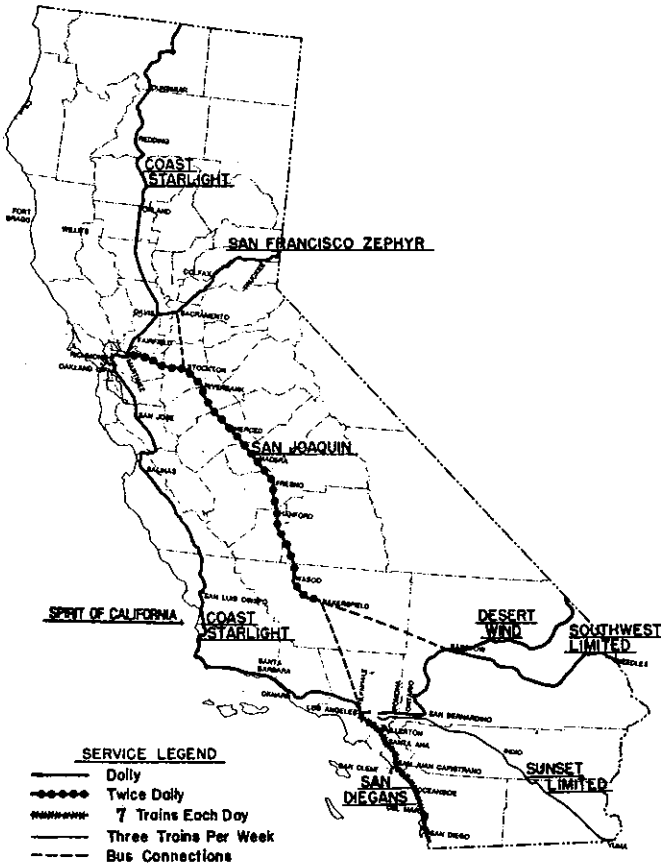


Fig. 7.3 Amtrak System in California

5,000 population level in stating that virtually every community over 5,000 inhabitants receives intercity bus service. Another historical reference to a population benchmark was the criteria for the State's Freeway and Expressway System (1958), where it was planned to serve all cities having a population "5,000 or greater" by the year 1980.

Quality Roadways

Good quality roadways are needed for the operation of long-distance, high-speed intercity bus service. The California Freeway and Expressway System consists of high-standard highways, incorporating 2,300 miles of the National System of Interstate and Defense Highways (see Figure 7.5). Greyhound Lines and Trailways operate almost exclusively on the Freeway and Expressway System in California.

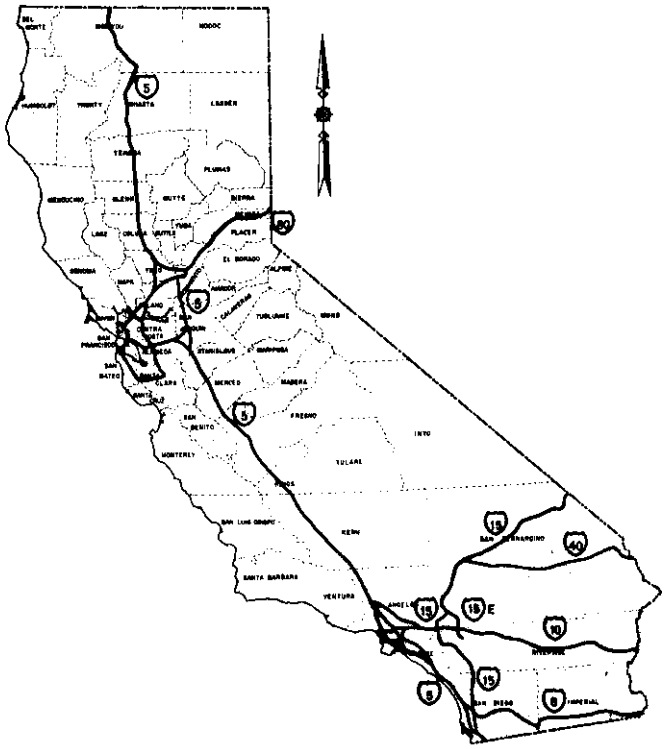


Fig. 7.5 Interstate Highway System In California

Established Intercity Service Territories

The routes of existing bus services offer strong evidence for service need as well as the ability of carriers to provide it (at least under today's system of a regulated industry and with adequate public subsidies for rural transit operations).

Other interstate transportation modes (air, rail) offering "higher" quality service should be complemented by more connecting bus services.

National and State Parks

The National and State Parks System attracts millions of visitors annually. Both federal and State governments have assumed a responsibility for meeting a share of the State's recreation demand, and use of the Parks has dramatically increased. It is anticipated that annual patronage will continue to grow with the State's population and increasing numbers of out-of-state visitors.

PRINCIPAL LOCATIONS

Upon application of these network criteria, 156 cities, 29 urbanized areas and 21 parks are identified and labeled as "principal locations". Specifically, a principal location meets one or more of the following standards:

- a county seat (58)
- the largest city in each county (58)
- an urban area with 5,000 or more inhabitants (137)
- an urbanized area as defined by U.S. Bureau of the Census (29)
- a National or State Park with annual attendance greater than 1 million visitors (21)

A listing of all principal locations in California is found in Table 7.1. Only three of these locations do not have intercity bus service: Downieville, Loyalton, and Markleeville.

PROPOSED NETWORK

The Basic State Intercity Bus Network is constructed by forming a series of route linkages, connecting principal locations in a manner consistent with the network criteria. Figure 7.6 is a map of the proposed Network, a parsimonious interconnecting system that provides minimum access to every principal location over the best available routes. The Network incorporates major State travel corridors which provide for the rapid interchange of people and goods between interstate locations and between metropolitan areas within California.

In excess of 80 percent of the resulting 5,879 network miles are over the California Freeway and Expressway System. Only three percent (207 miles) falls on non-State highways, with 49 percent of network miles on fully-constructed multilane freeways. A summary of route mileages, by county, is shown in Table 7.2.

Factors of Private Sector Bus Service

Having established a Basic State Intercity Bus Network to identify the focus of State concern, additional analysis is necessary to measure the likelihood of continued intercity bus service on that Network and the remaining Off-Network routes.

In many rural areas, the small local demand for intercity bus transportation will not support frequent service at the

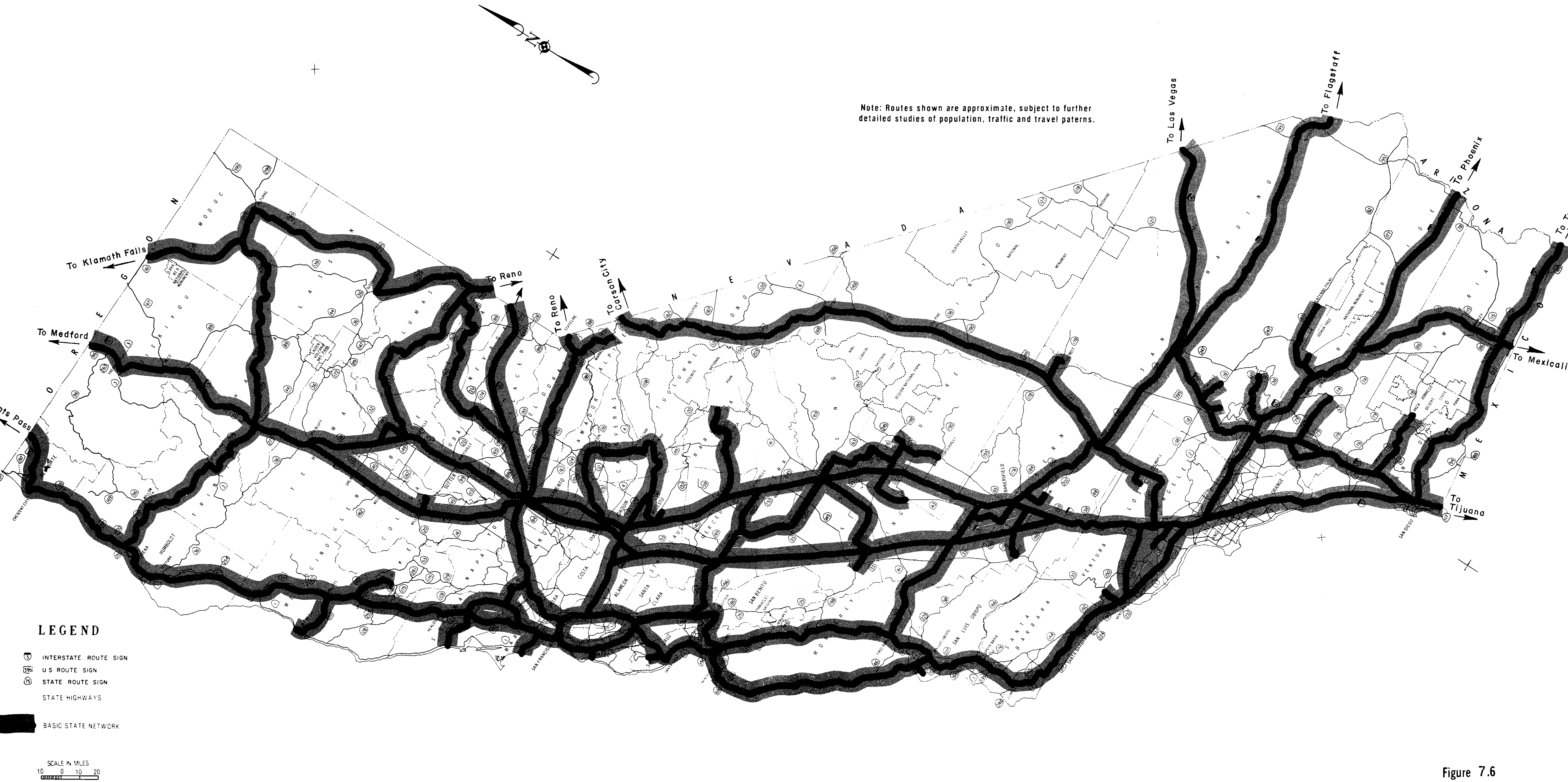


Figure 7.6

BASIC STATE INTERCITY BUS NETWORK

March 1982

Table 7.1

Principal Locations

MAP PLACE NAME	COUNTY SEAT	DIST	COUNTY	CORP STATUS	STATE HWY	POPULATION
ALPINE		11	SD	U	8	5,368
ALTURAS	X	02	MOD	I	299, 395	3,025
ANDERSON		02	SHA	I	273	7,381
ANGELS CAMP		10	CAL	I	4, 49	2,302
APPLE VALLEY		08	SBD	U	18	14,305
ARCATA		01	HUM	I	101	12,338
ARROYO GRANDE		05	SLO	I	101, 227	11,290
ARVIN		06	KER	I	223	6,863
ATASCADERO		05	SLO	U	41, 101	15,930
ATWATER		10	MER	I	99	17,530
AUBURN	X	03	PLA	I	40, 80, 193	7,540
BAKERSFIELD	X	06	KER	I	539, 210	105,611
BANNING		08	RIV	I	10, 243	14,020
BARSTOW		08	SBD	I	15, 40	17,690
BAYWOOD-LOS OSOS		05	SLO	U	NO	10,933
BEAUMONT		08	RIV	I	10, 60, 79	6,818
BIG BEAR CITY (P.O. SUGARLOAF)		08	SBD	U	18, 38	11,151
BISHOP		09	INY	I	168, 395	3,333
BLYTHE		11	RIV	I	10	6,805
BRAWLEY		11	IMP	I	78, 111	14,946
BRIDGEPORT	X	09	MNO	U	182	567
CALEXICO		11	IMP	I	98, 111	14,412
CAMERON PARK		03	ED	U	50	5,607
CARPINTERIA		05	SB	I	101, 224	10,835
CHICO		03	BUT	I	32, 99	26,601
CHOWCHILLA		06	MAD	I	99, 152	5,122
COACHELLA		11	RIV	I	86, 111	9,129
COALINGA		06	FRE	I	33, 198	6,593
COLUSA	X	03	COL	I	20, 45	4,075
CORCORAN		06	KIN	I	43, 137	6,454
CRESCENT CITY	X	01	DN	I	101	3,099
DAVIS		03	YOL	I	80, 113	36,640
DELANO		06	KER	I	99, 155	16,491
DESERT HOT SPRINGS		08	RIV	I	NO	5,941
DINUBA		06	TUL	I	NO	9,907
DIXON		10	SOL	I	113	7,507
DOWNIEVILLE	X	03	SIE	U	49	400
EL CENTRO	X	11	IMP	I	86	23,996
EUREKA	X	01	HUM	I	101, 255	24,153
EXETER		06	TUL	I	65	5,619
FAIRFIELD	X	10	SOL	I	12, 80	58,099
FALLBROOK		11	SD	U	NO	14,041
FARMERSVILLE		06	TUL	I	NO	5,544
FILLMORE		07	VEN	I	23, 126	9,602
FORT BRAGG		01	MEN	I	1	5,019
FORTUNA		01	HUM	I	101	7,591
FRESNO	X	06	FRE	I	41, 99, 180	218,202

GALT		03	SAC	I	99	5,514
GILROY		04	SCL	I	101, 152	21,641
GRASS VALLEY		03	NEV	I	20, 49	6,697
GROVER CITY		05	SLO	I	1	8,827
HALF MOON BAY		04	SM	I	1, 92	7,282
HANFORD	X	06	KIN	I	198	20,958
HEALDSBURG		04	SON	I	101	7,217
HESPERIA		08	SBD	U	NO	13,540
HOLLISTER	X	05	SBT	I	156, 180	11,488
INDEPENDENCE	X	09	INY	U	395	1,000
INDIO		11	RIV	I	10, 111	21,611
KING CITY		05	MON	I	101	5,495
KINGSBURG		06	FRE	I	99, 201	5,115
JACKSON	X	10	AMA	I	49, 88	2,331
LAKE ARROWHEAD		08	SBD	U	173, 189	6,272
LAKE ELSINORE (FORMERLY ELSINORE)		08	RIV	I	71, 74	5,982
LAKEPORT	X	01	LAK	I	29	3,675
LAMONT		06	KER	U	184	9,616

Table 7.1 (Continued)

MAP PLACE NAME	COUNTY SEAT	DIST	COUNTY	CORP STATUS	STATE HWY	POPULATION
LEMOORE		06	KIN	I	198	8,832
LINDSAY		06	TUL	I	65	6,924
LIVINGSTONE		10	MER	I	99	5,326
LODI		10	SJ	I	12, 99	35,221
LOMPOC		05	SB	I	1, 246	26,267
LOS ANGELES	X	07	LA	I	5, 10, 11	2,966,763
LOS BANOS		10	MER	I	33, 165	10,341
LOYALTON		03	SIE	I	49	1,030
MADERA	X	06	MAD	I	99, 145	21,732
MANTECA		10	SJ	I	99, 120	24,925
MARIPOSA	X	10	MPA		49, 140	1,150
MARKLEEVILLE	X	10	ALP	U	89	100
MARTINEZ	X	04	CC	I	680	22,582
MARYSVILLE	X	03	YUB	I	20, 70	9,898
MCFARLAND		06	KER	I	99	5,151
MCKINLEYVILLE		01	HUM	U	101	7,772
MEINERS OAKS-MIRAMONTE		07	VEN	U	33, 150	9,512
MENDOTA		06	FRE	I	33, 180	5,038
MERCED	X	10	MER	I	59, 99, 140	36,499
MODESTO	X	10	STA	I	99, 18, 132	106,105
MORRO BAY		05	SLO	I	1	9,064
NAPA	X	04	NAP	I	12, 29, 121	50,879
NEVADA CITY	X	03	NEV	I	20, 49	2,431
NIPOMO		05	SLO	U	101	5,247
OAKDALE		10	STA	I	108, 120	8,474
OAKLAND	X	04	ALA	I	17, 580	339,288
OJAI		07	VEN	I	150	6,816
OROVILLE	X	03	BUT	I	70	8,683
PALMDALE		07	LA	I	14, 138	12,277
PARADISE		03	BUT	U	191	22,571
PASO ROBLES (EL PASO DE ROBLES)		05	SLO	I	46, 101	9,163
PERRIS		08	RIV	I	15, 74	6,740
PETULUMA		04	SON	I	101, 116	33,834
PISMO BEACH		05	SLO	I	1, 101	5,364
PLACERVILLE	X	03	ED	I	49, 50	6,739
PORTERVILLE		06	TUL	I	65, 190	19,707
PORTOLA		02	PLU	I	70, 285	1,885
PRUNEDALE		05	MON	U	101, 156	5,110
QUINCY	X	02	PLU	U	70	4,451
RAMONA		11	SD	U	67, 78	8,173
RED BLUFF	X	02	TEH	I	5, 36	9,490
REDDING	X	02	SHA	I	5, 299, 273	41,995
REDWOOD CITY	X	04	SM	I	82, 101, 114	54,965
REEDLEY		05	FRE	I	NO	11,071
RIDGECREST		09	KER	I	178	15,929
RIVERBANK		10	STA	I	108	5,695
RIVERSIDE	X	08	RIV	I	10, 15	170,876
SACRAMENTO	X	03	SAC	I	5, 80	275,741
SALINAS	X	05	MON	I	68, 101	80,479

SAN ANDREAS	X	10	CAL	U	12, 49	1,912
SAN BERNARDINO	X	08	SBD	I	10, 15	118,057
SAN DIEGO	X	11	SD	I	5,8,15,94,805	875,504
SAN FRANCISCO	X	04	SF	I	80, 280, 101	678,974
SAN JOSE	X	04	SCL	I	82, 280	636,550
SAN LUIS OBISPO	X	05	SLO	I	1, 101, 227	34,252
SAN RAFAEL	X	04	MRN	I	17, 101	44,700
SANGER		06	FRE	I	NO	12,558
SANTA ANA	X	07	ORA	I	5	203,713
SANTA BARBARA	X	05	SB	I	101, 192	74,542
SANTA CRUZ	X	04	SCR	I	1, 9, 17	41,483

Table 7.1 (Continued)

MAP PLACE NAME	COUNTY SEAT	DIST	COUNTY	CORP STATUS	STATE HWY	POPULATION
SANTA PAULA		07	VEN	I	126, 150	20,552
SANTA ROSA	X	04	SON	I	12, 101	83,205
SEBASTOPOL		04	SON	I	12, 116	5,500
SELMA		06	FRE	I	43, 99	10,942
SHAFTER		06	KER	I	43	7,010
SOLEDAD		05	MON	I	1, 146	5,928
SONAMA		04	SON	I	12	6,054
SONORA	X	10	TUO	I	49, 108	3,239
SOUTH LAKE TAHOE		03	ED	I	50	20,681
STOCKTON	X	10	SJ	I	4, 5, 99	149,779
SUN CITY		08	RIV	U	15	8,460
SUSANVILLE	X	02	LAS	I	36, 139	6,520
TAFT		06	KER	I	33, 119	5,316
TRACY		10	SJ	I	205	18,428
TULARE		06	TUL	I	99, 317	22,475
TURLOCK		10	STA	I	99, 165	26,291
TWENTYNINE PALMS		08	SBD	U	62	7,465
UKIAH	X	01	MEN	I	101, 222	12,035
VACAVILLE		10	SOL	I	80, 179	43,367
VANDENBERG VILLAGE		05	SB	U	NO	5,839
VENTURA (SAN BUENAVENTURA)	X	07	VEN	I	101	74,474
VICTORVILLE		08	SBD	I	15, 18	14,220
VISALIA	X	06	TUL	I	63, 198	49,729
WASCO		06	KER	I	43, 46	9,613
WATSONVILLE		04	SCR	I	1, 129	23,543
WEAVERVILLE	X	02	TRI	U	3, 299	1,489
WILLOWS	X	03	GLE	I	5, 162	4,777
WOODLAKE		06	TUL	I	69, 216	5,375
WOODLAND	X	03	YOL	I	5, 16	30,235
YREKA	X	02	SIS	I	5, 263	5,916
YUBA CITY	X	03	SUT	I	20, 99	18,736

URBANIZED AREAS*

Antioch-Pittsburg Urbanized Area
Bakersfield Urbanized Area+
Chico Urbanized Area
Fairfield Urbanized Area+
Fresno Urbanized Area+

Hemet Urbanized Area
Lancaster Urbanized Area
Los Angeles-Long Beach Urbanized Area+
Modesto Urbanized Area+
Napa Urbanized Area+

Oxnard-Ventura-Thousand Oaks Urbanized Area+
Palm Springs Urbanized Area
Redding Urbanized Area+
Sacramento Urbanized Area+
Salinas Urbanized Area+

San Bernardino-Riverside Urbanized Area+
San Diego-Oceanside Urbanized Area+
San Francisco-Oakland Urbanized Area+
San Jose Urbanized Area+
Santa Barbara Urbanized Area+

Santa Cruz Urbanized Area+
Santa Maria Urbanized Area

Santa Rosa Urbanized Area+
Seaside-Monterey Urbanized Area
Simi Valley Urbanized Area

_____
*Cities with a population greater than 5,000 are not individually listed if located within an urbanized area.
+Urbanized area contains county seat(s) previously listed as principal locations.

Table 7.1 (Continued)

URBANIZED AREAS (Continued)

Stockton Urbanized Area+
Visalia Urbanized Area+
Yuba City Urbanized Area+
Yuma Urbanized Area

STATE PARKS	TOTAL VISITORS FY 80-81
Anza-Borrego Desert State Park	1,101,977
Bolsa Chica State Beach	3,049,800
Cardiff State Beach	1,350,585
Carlsbad State Beach	1,825,838
Folsom Lake Area	1,981,789
Half Moon Bay State Beach	1,048,932
Huntington State Beach	2,284,051
Lake Perris State Recreation Area	1,405,033
Moonlight State Beach	1,402,886
Old Town San Diego State Historic Park	3,570,465
Pismo State Beach	2,101,081
San Buena Ventura State Beach	1,470,345
Sonoma Coast State Beach	1,377,605
South Carlsbad State Beach	1,177,729
Torrey Pines State Beach	1,560,969

NATIONAL PARKS	TOTAL VISITORS - 1980
Cabrillo National Monument	1,253,100
Golden Gate National Recreation Area	18,421,800
Muir Woods National Monument	1,311,600
Point Reyes National Seashore	1,408,800
Whiskeytown National Recreation Area	1,149,600
Yosemite National Park	2,490,300

Table 7.2
Highway Facilities Used By the
Basic State Intercity Bus Network (miles)

COUNTIES	TOTAL	State Highway Facility			Other Roads	CF&ES*
		Freeway	Expressway	Conventional		
Alameda	73	73				73
Alpine	16		9	7		16
Amador	21			21		16
Butte	96	14	35	36	11	85
Calaveras	27			27		
Colusa	43	34		9		43
Contra Costa	15	15				15
Del Norte	70	4	16	50		53
El Dorado	66	20	12	34		62
Fresno	255	97	6	117	35	215
Glenn	28	28				28
Humboldt	164	75	45	44		164
Imperial	148	90	6	52		148
Inyo	127		55	72		127
Kern	402	197	51	134	20	362
Kings	69	32	25	12		69
Lake	19	7		12		7
Lassen	170	2	34	134		120
Los Angeles	219	206		6	7	212
Madera	43	26	17			43
Marin	53	22	10		21	32
Mariposa	48			48		20
Mendocino	162	33	36	93		113
Merced	126	41	62	23		126
Modoc	114		40	74		92
Mono	106		27	79		106
Monterey	210	87	35	18	70	133
Napa	11	2	3	6		11
Nevada	65	39	4	22		47
Orange	44	44				44
Placer	69	61	4	4		69
Plumas	97		18	79		97
Riverside	287	153	34	95	5	242
Sacramento	103	103				103
San Benito	23	2	4	17		23
San Bernardino	460	383	13	60	4	437
San Diego	199	191	8			199
San Francisco	20	20				20
San Joaquin	153	108	5	40		135
San Luis Obispo	154	55	69	11	19	135
San Mateo	33	26		7		26
Santa Barbara	93	32	40	21		77
Santa Clara	101	68	10	23		91
Santa Cruz	42	22		20		22
Shasta	175	63	34	78		175
Sierra	67	6	5	56		67
Siskiyou	78	74		4		78
Solano	47	44		3		47

Sonoma	124	46	6	72		64
Stanislaus	65	45	8	12		65
Sutter	15		2	13		15
Tehama	66	40	4	22		50
Trinty	67		12	55		67
Tulare	124	67	15	27	15	100
Tuolumne	28		14	14		13
Ventura	96	65		31		96
Yolo	41	41				41
Yuba	42	6	10	26		42
GRAND TOTAL	5,879	2,909	843	1,922	207	5,178
Percentage	100	49.5	14.3	32.7	3.5	88.1

*NOTE - California Freeway and Expressway System

prevailing tariff rates. Without adequate local demand, the carrier may be expected to:

- Carry long-distance (overhead) traffic through the corridor to help share costs
- Reduce the frequency of service
- Raise fares to a compensatory level
- Increase volume of package express carried
- Seek route abandonment
- Ask for subsidy

It is probable that service over Interstate Highway Routes will remain profitable and attract new competitors. The potential for interstate traffic and for greater numbers of passengers traveling between metropolitan centers will assure that a minimum level of service will continue on Interstate routes.

Of principal concern are the non-Interstate highways that serve remote regions of the State. When local demand is insufficient to support frequent regular bus service, the service may be reduced or abandoned.

To aid in assessing a route's vulnerability to such losses, carriers' comments of potential for local bus utilization were examined.

SERVICE LOSS POTENTIAL

One tool used in the analysis of a route's vulnerability is a Service Loss Index, based on the following five service variables:

- route population
- annual average daily traffic
- distance to nearest principal location
- age of rural population
- auto availability of rural households

A constant sum, paired-comparison technique was used to determine the relative importance of each service variable using group consensus. A ranking of variables by importance was obtained, as well as the relative importance (or weight) of each variable with respect to the other variables. The value of this approach is that a service variable may be judged to be most important from a list of competitors, as well as determining to what degree of importance that variable has with respect to all other variables considered.

The route analyses in the Technical Supplement are made using the Service Loss Indices along with carriers' identification of marginally profitable routes.

SELECTION OF VARIABLES

The following is a description of criteria used to develop the Index:

Route Population. The population residing along bus routes constitutes a basis for service demand. To quantify the demand potential, the ratio of population served to route distance was used. Figure 7.7 portrays this ratio on existing California intercity routes.

Average Traffic. One indicator of travel desire is the annual average daily traffic (AADT) over State highways. Where traffic is heaviest is an indicator of travel desire. California's AADT is shown in Figure 7.8.

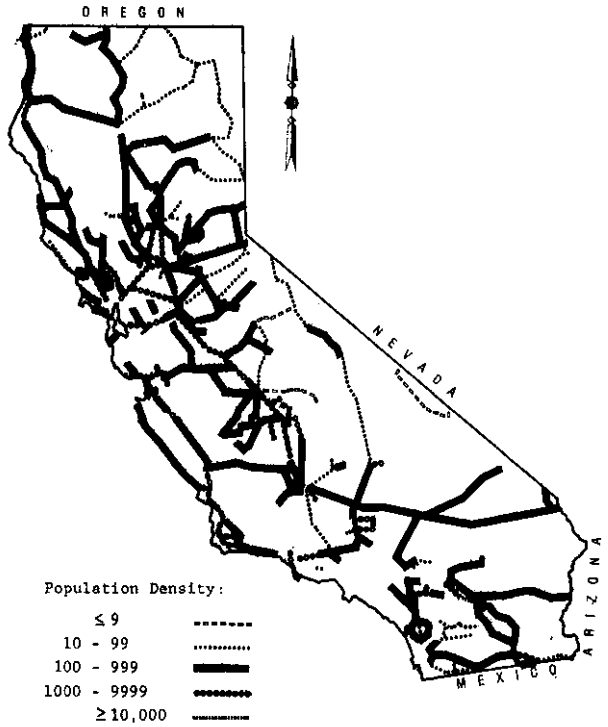


Fig. 7.7 Intercity Bus Route Population Density: Ratio of Population to Route Distance

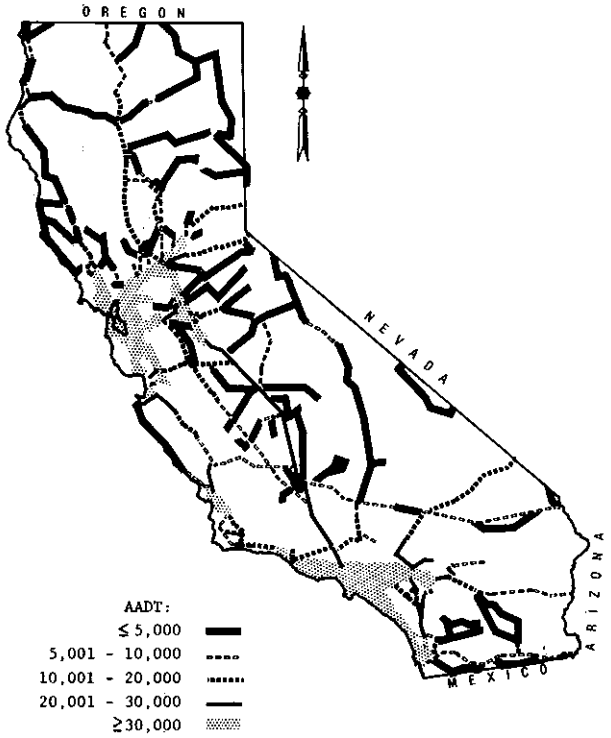


Fig. 7.8 Annual Average Daily Traffic on State Highways

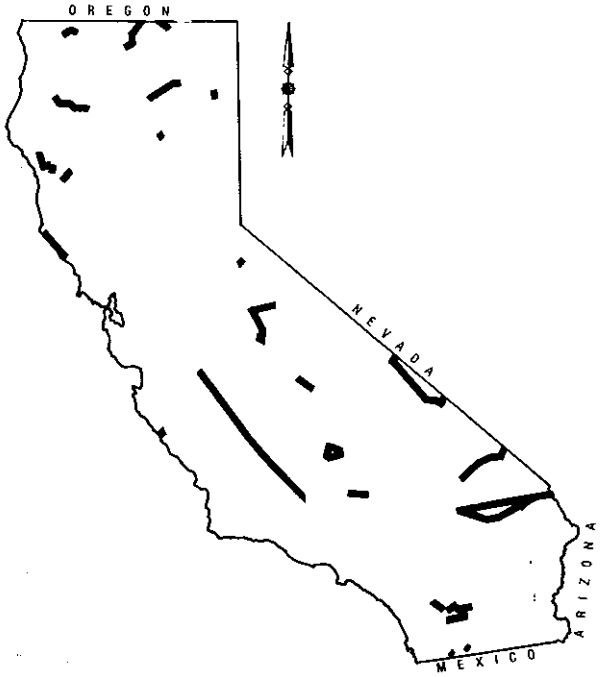


Fig. 7.9 Intercity Bus Route Segments More Than 50 Miles from a Principal Location

Trip Duration. To achieve regular use of long-distance public transportation, trip duration must not be too long if it is to be convenient and comfortable. It is assumed that one-way transit trips over one-hour duration (50 miles) become increasingly unattractive. Route segments more than 50 miles away from any principal location are shown in Figure 7.9.

Age. A higher median age of area population may indicate a greater need for public transportation, in that older persons often have smaller incomes, lowered abilities to drive because of physical limitations, a need for regular trips to social services and medical assistance, and more discretionary time that may be used for slower forms of travel. The median age of rural (nonfarm) populations of California counties ranges from 22 years to 48 years and is displayed in Figure 7.10.

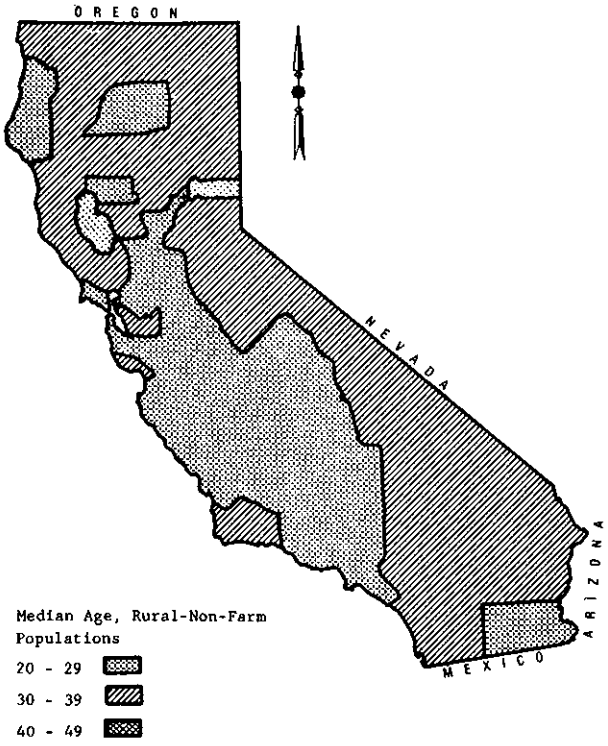


Fig. 7.10 Median Age of Rural (Nonfarm) Populations In California

Auto Availability. The nonavailability of private auto transportation is an indicator of probable need for public transit. The exact relationship between auto availability and travel is unclear, because many trips may be foregone, made with the help of neighbor, handled via telephone and written communications, or made by walking, using a bicycle, or employing other nonauto means. Figure 7.11 shows the percentage of housing units having no automobiles for each county in the State.

WEIGHTING OF VARIABLES

The Service Loss Index is the summed effect of all five variables. The higher the Index, the more vulnerable a route is to reduced service or abandonment.

Weighted values were assigned to each of the service criteria based on the outcome of the constant sum, paired-comparison analysis. Persons knowledgeable of rural transit and intercity bus service participated in the paired-comparison exercise. Once weights were determined, an Index value was computed for all nonsubsidized intercity bus routes. The rankings and weighting of the five criteria are shown in Table 7.3.

The highest Index is 40, which represents a most vulnerable location for reduced or abandoned bus service. At the other end is zero, representing a least vulnerable location. Index values for the Basic State Intercity Bus Network are shown in Figure 7.12. A histogram identifying the distribution of Basic State Intercity Bus Network route mileage by Index value is shown in Figure 7.13.

In this chapter, the concept of a Basic State Intercity Bus Network has been introduced to identify a rational basis upon which the State's role can be focused. In the following chapter, regulatory reform of the intercity bus industry is discussed.

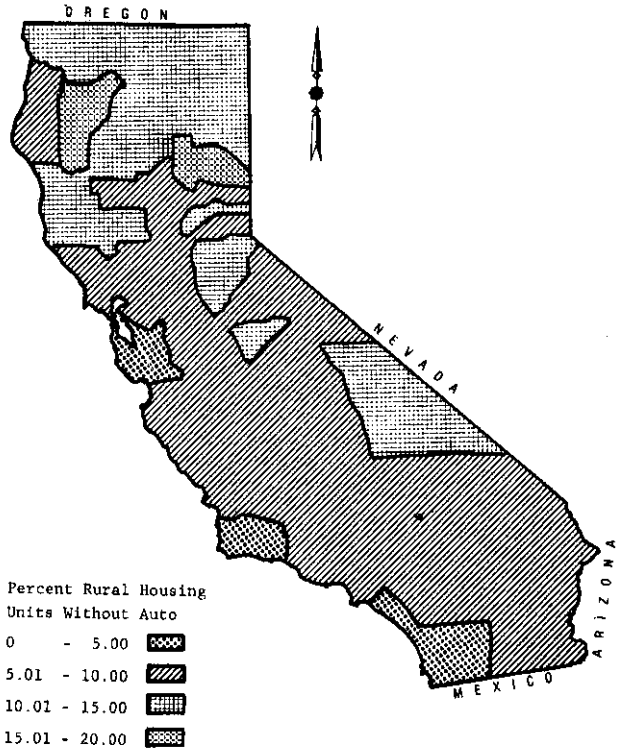


Fig. 7.11 Percent of Rural Housing Units Without Autos in California

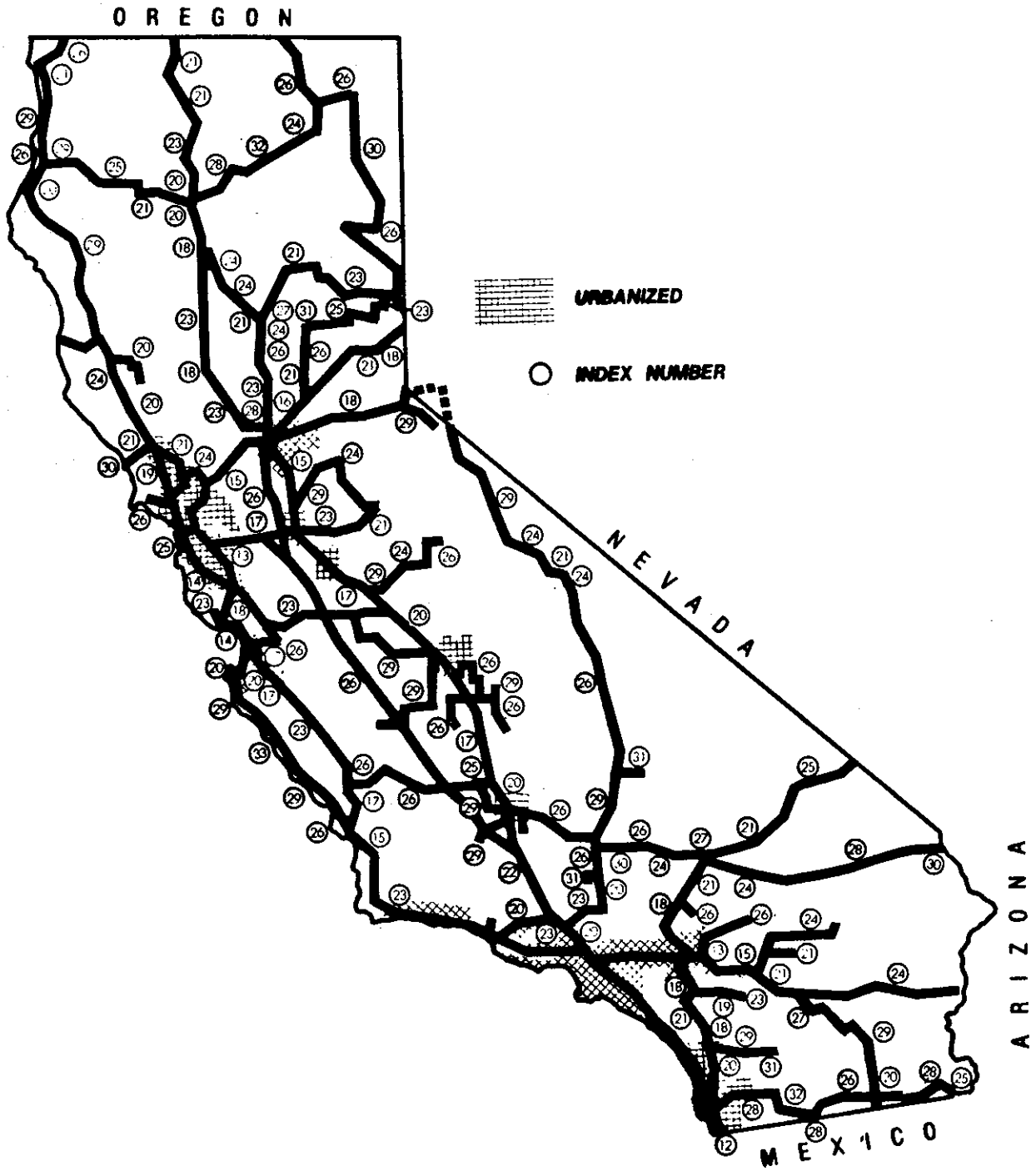


Fig. 7.12 Service Loss Potential on the Basic State Intercity Bus Network

Table 7.3
Service Loss Potential

Rank	Criterion	Index Weight
(1)	Average Daily Traffic:	
	• less than 5,000 vehicles	11
	• 5,000 to 9,999	8
	• 10,000 to 19,999	5
	• 20,000 to 29,999	2
	• greater than or equal to 30,000	0
(2)	Population Route Density:	
	• less than 9 persons per mile	9
	• 10 to 99	8
	• 100 to 999	6
	• 1,000 to 9,999	3
	• greater than or equal to 10,000	0
(3)	County Rural Housing Units Without Private Automobiles:	
	• 15 to 20 percent	0
	• 10 to 14	3
	• 5 to 9	6
	• 0 to 4	8
(4)	Distance to Reach Nearest Principal Location:*	
	• greater than or equal to 100 miles	6
	• 50 to 99	4
	• 0 to 49	0
(5)	Median Age of Rural Nonfarm County Population:	
	• greater than or equal to 40 years	0
	• 30 to 39	4
	• less than 30	6

*NOTE A "principal location" is either a county seat, an urban place having population of 5,000 or greater, the largest town in a county, or a National or State Park with an annual attendance of more than one million visitors.

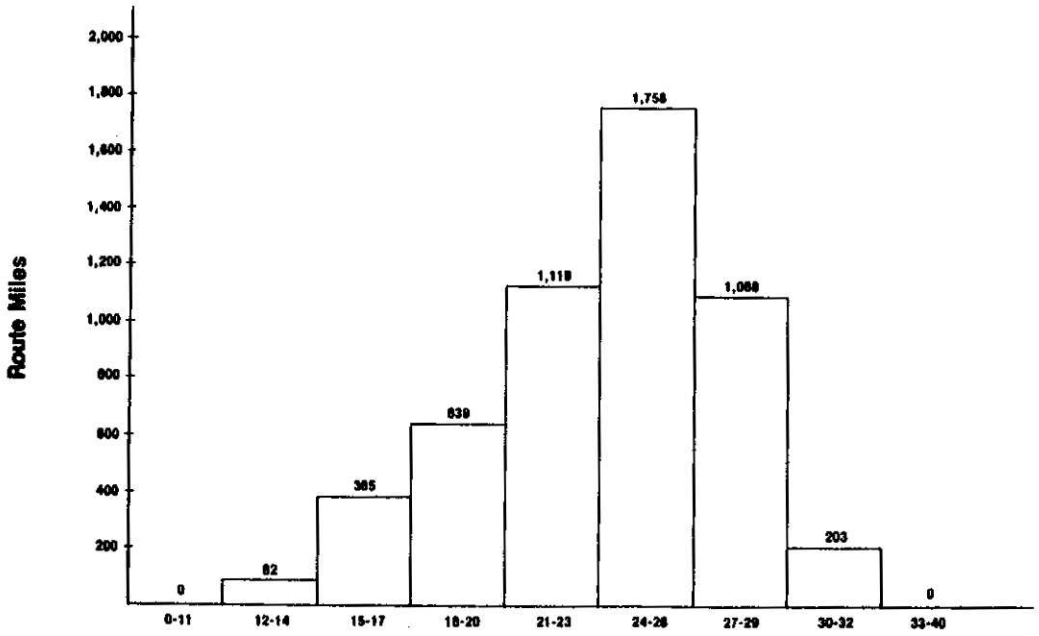


Fig. 7.13 Route Mileage by Service Loss Potential Rating: Basic State Intercity Bus Network

8. Regulatory Reform of the Intercity Bus Industry

Regulatory reform of the intercity bus industry has become a subject of serious national interest and debate. The U.S. House of Representatives has already acted through passage of the Bus Regulatory Reform Act of 1981 on November 19, 1981. The measure now proceeds to the Senate. In this chapter, the major proposals for regulatory reform are examined through an analysis of the salient issues. The positions of each key group advocating regulatory reform is discussed. In addition, major provisions of the measure which has passed the House of Representatives are mentioned. First, though, a brief examination of the current regulatory status of other transportation modes is presented.

EXPERIENCE OF OTHER MODES

The intercity bus industry is the only regulated transportation sector not yet touched by the recent wave of regulatory reform. The Airline Deregulation Act of 1978, the Motor Carrier Act of 1980, and the Staggers (Rail) Act of 1980 have introduced various degrees of change in the economic regulation of commercial air, trucking, and rail freight service. These experiences, though not directly transferable in all respects, offer some insight by which the bus industry could gain.

Aviation. Deregulation of the aviation industry has attracted much public attention. However, attempts to analyze the early effects have been hampered by an inability to isolate causes. The aviation industry was subjected to deregulation while the economy deteriorated and fuel and other operating costs escalated. The net result has been intense competition in major markets with mixed effects. Price has replaced service as the primary competitive weapon. In general, it appears that the discretionary traveler may be benefitting at the expense of some business travelers.

The network shape has been altered as trunk carriers have quickly abandoned the shorter, less profitable routes to commuter operators. In turn, trunk carriers have concentrated on serving the more lucrative longer hauls, adding important feeder routes.

Though the aviation and intercity bus industries are not structurally comparable, the airlines' actions offer some observations. Deregulation spurs action and new life into old organizations accustomed to protection. Given freer reign, it is anticipated that airline managements can realize better efficiencies through fewer seat miles, and higher load factors. Temporary inconveniences to travelers may occur, but the public is still adjusting to a new system which demands more of the traveler in terms of knowledge, flexibility, and patience.

Truck. Some of the deregulation effects of the Motor Carrier Act of 1980 have begun to emerge. What seems clear is that the ICC will continue to regulate the trucking industry, while encouraging more competition (deregulation).

It is expected that "private" trucking carriers (for example, Safeway Stores) will benefit more than will the common carriers. Numerous consolidations and mergers (also true with airlines) are being generated. Another early impact has been the devaluation of operating rights. The Internal Revenue Service will ultimately rule on allowable tax write-offs, if certificate owners are not otherwise remunerated. The reforms found in the Motor Carrier Act of 1980 (elimination of circuitous routing, forbidden back hauls, and commodity restrictions) do not have direct application to the bus industry.

Rail. The railroads continue to play a large role in regulatory politics. Having virtually abandoned their passenger operations, some of the railroads are

struggling to survive in the competitive freight business. Government intervention in rail markets (e.g., Conrail and Amtrak) is far more pervasive than previous intervention by the regulatory agencies. Yet, the Staggers Act is an attempt to temper that intervention by allowing for more managerial discretion in determining rates. But this legislation is not "true" deregulation; it includes federal bail-out funds for Conrail and for the Rock Island bankruptcy, as well as special provisions for Texas utilities and funds for construction of a new rail line in the prospering Western coal region.

While continuing to subsidize private railroads, the basic implication of the Staggers Act is that nationalization of railroads is always a possibility in the future. Ironically, the industry that generated governmental economic regulation out of intense price competition is again being allowed to compete with prices.

THE NEED FOR INTERCITY BUS REGULATORY REFORM

Government regulation of the intercity bus industry was initiated without extensive knowledge or concern of the economic characteristics of intercity bus service. The public had demanded intervention in the free bus marketplace by government. Intercity bus service was declared a "public utility" and its regulation by the government was therefore necessary for the protection of the public interest.

However, the accepted economic rationale for government regulation of public utilities was not totally applicable to the intercity bus industry. A "natural monopoly" exhibits economies of scale. Substantial operating economies of scale do not exist in the intercity bus industry.[1] Studies have also shown that increases in bus-miles operated do not necessarily result in marginally lower costs per bus-mile. In fact, small carriers remain effective and profitable providers of intercity bus service. This situation can be attributed to relatively low fixed costs for market entry and the low operating costs. For example, vehicles can be debt-financed, station space can be rented, and tickets can be sold through independent agencies. This condition can be contrasted with the dramatically high ratio of fixed cost to variable cost and associated economies of scale favoring large networks for rail service, pipelines and other "true" public utilities.

Competitive Intercity Market. Intercity bus service is the only fully regulated intercity transportation mode. Intercity bus carriers must compete in some corridors with deregulated airlines and passenger rail service. For example, in August 1981, the fare between San Francisco and Los Angeles was $60.00 for commercial air service ($36.00 with discount fare); $48.50 for passenger rail (coach), and $27.15 for bus. On all routes, the private automobile remains the primary mode of intercity travel.

Besides competitive commercial air, passenger rail services, and the private automobile, private intercity bus carriers have been experiencing increased competition from publicly-funded bus services. In 1974, only ten public transit systems were engaged in intercity transportation services. By 1982, only eight years later, the number of public intercity transit operations has expanded to 53. The reasons for route duplication include the parochial attitudes of many local entities against working cooperatively with private intercity bus carriers and in favor of implementing their own transportation systems (see Table 8.1). Funding regulations have also contributed to the problem. For instance, Transportation Development Act regulations require a ten percent and twenty percent minimum revenue return for operators receiving funds in rural and urban areas, respectively. In order to meet this requirement, some public operators have expanded service over profitable intercity routes. The competitive market, however, has been distorted by the publicly subsidized carriers' ability to charge lower fares.

Regulatory Bureaucracy. The regulatory process has evolved into a slow and costly bureaucratic complexity. For example, Greyhound Lines, Inc., filed 147 intrastate general rate increase requests between 1975 and 1980 in 44 states. Although fifteen states acted within 45 days, the remaining 29 states averaged

[1] Management Analysis, Inc., Deregulation of the Intercity Bus Industry (Washington, DC; January 1981), p. 15.

Table 8.1
Examples of Public and Private Intercity Bus Service Conflicts

Location	Nature of Conflict	Resolution
San Diego to the Mexican Border (17 miles)	Local transit began operation of low-fare service over corridor of high profitability for private carrier.	A significant amount of bus traffic was diverted and private carrier withdrew from local service.
Oceanside to San Diego (37 miles)	Transit district began a commute bus service over the corridor of a private sector carrier.	U.S. DOT intervened as federal funds were used in the transit operation, and the commute buses were ordered discontinued.
Riverside to Hemet (35 miles)	Local transit agency planned service to same city, but along different road. Private carrier willing to continue service under contract.	Transit agency began service under contract with other party. The common carrier files for, and is granted, permission to abandon.
Ft. Bragg to Little River (13 miles)	Rural transit agency began operation over common-carrier's route, duplicating all stops.	Due to high agency costs, the private carrier is awarded contract to perform this, and other agency services.
Monte Rio to Santa Rosa (29 miles)	County transit system obtained used buses from major carrier, and used them to operate over same carrier's route at higher frequency and lower fare.	Major carrier showed county that it could offer all services at lower cost. County was impressed and gave contract to low-bid private party, not major carrier. Major carrier discontinues service.
Sonora to Tuolumne (10 miles)	Local transit system with federal grant began operating in area of private carrier's stub route.	Private carrier asks for, and is granted, permission to discontinue service.
Salinas to Monterey (18 miles)	Joint powers transit agency began intercity service between these urbanized area at half-hour headways. Major carrier also served corridor.	Major carrier eliminates four of eleven schedules.
Fairfield to Stockton (67 miles)	City wants connecting intercity service to major cities, junior college and county seat.	Federal grant is obtained to arrange purchase-of-service contract with major common-carrier.

Source: Private Versus Public Intercity Bus Service. Paper presented at 60th Annual Meeting of the Transportation Research Board. January, 1981.

152 days.[2] The last two rate increases Greyhound requested for its California intrastate service were unopposed and no public hearings were held. However, 359 and 245 days passed between filing and Public Utilities Commission (PUC) approval of each.[3] According to Greyhound, the company lost between $10,000 and $20,000 in daily revenue during the processing of these rate increase applications. Trailways submitted an application to the California Public Utilities Commission (Application No. 57797) in January 1978, for an order amending a restriction on service between San Francisco and the California-Nevada State line over Interstate Highway 80. The PUC has yet to issue an opinion on the application, even though over three years have passed since submission to the Commission.

Increased competition, rising operating costs, and the inefficiency of cross subsidy have lowered carriers' profit margin, and, today, jeopardize the financial stability of the intercity bus

[2] Testimony by William McKracken of Greyhound Lines, Inc., before the House Public Works Committee Subcommittee on Surface Transportation, June 3, 1981.

[3] ibid.

industry. The alternatives available for private intercity bus carriers are to increase fares in price inelastic markets and reduce or eliminate service to unprofitable locations. Each alternative may be contradictory to the general public interest.

Public Benefits. Regulatory reform of the intercity bus industry would help to alleviate some of the bus industry's most pressing problems and would give the public the following benefits:

- Lower costs for consumers. Transportation costs for consumers would be lower in competitive major travel corridors. Fares would be flexible within a prescribed zone of reasonableness. Although commercial air fares increased in some corridors following deregulation, the rates of increase were lower than the aggregate increases of actual operating costs.

- Greater consumer choice. Intercity travelers would have additional service providers from which to choose, along with a variety of service levels and classes of service in corridors with sufficient passenger demand.

- Rational resource allocation and pricing. The market allocation process would result in more efficient use of available resources. Operators would be encouraged to minimize wasteful resource expenditures and seek higher profits through greater efficiency. Greater fuel economy per passenger-mile would result from higher load factors and assignment of vehicles and service frequency by actual market demand.

- Insurance and safety requirements. Current insurance requirements for intercity bus carriers are below necessary levels to fully protect the public and the carriers. Regulatory reform would contain requirements for increased minimum insurance levels. Legislation would also contain stringent safety requirements.

See Table 8.2 for a summary listing of the positive and negative aspects of regulatory reform of the intercity bus industry.

Almost all interested parties agree that the regulatory process is in need of reform. Major carriers eagerly express a desire to compete for patronage. Small carriers, though reluctant to relinquish protection afforded by regulation, generally endorse the objectives of streamlined, sensible regulation devoid of waste and delay. Recently, the public has been advocating less governmental regulation. The federal administration has responded with strong support for regulatory reform of the intercity bus industry. To proceed from this initial consensus to a meaningful and acceptable reform program, however, is proving to be a difficult task.

What must be closely examined is how change in either the scope or essence of regulation can improve the transportation system and continue to serve the public interest. The common carrier tradition is inherent with our transportation system, but the economic benefits of competition should not be ignored.

MAJOR ISSUES OF INTERCITY BUS REGULATORY REFORM

In recent years the Interstate Commerce Commission (ICC) has gradually addressed certain reform issues by administratively implementing reregulation through relaxed entry and by giving faster attention to needed fare adjustments. For example, the ICC stated in its Policy Statement on Motor Carrier Entry Regulation (Ex Parte MC-121) of 1978 that a test requiring "an applicant prove that the service it proposes cannot be performed by existing carriers has outlived its usefulness, and it will no longer be applied". Congress is considering proposals to push reform even further.

Salient issues currently under debate and of critical importance to the State include:

- market entry
- market exit
- fares
- insurance and safety requirements
- State preemption

Market Entry. The public interest requires an open intercity bus market to promote beneficial competition and the continuation of profitable intercity bus services.

The American Bus Association (ABA) supports a lower market entry standard than that established by the Motor

Table 8.2

Issues Related to Regulatory Reform of the Intercity Bus Industry

PRO	CON
• Bus transportation costs for consumers will be lower along corridors of major travel.	• Bus transportation services may be lost by some places with low demand.
• The service of more than one carrier will became available to communities; also a variety of service levels and classes of service.	• To increase bus services in isolated regions, subsidies may be required.
• Operators achieving greatest efficiency will be directly rewarded through higher profits.	• Service schedules and fares will change frequently, creating consumer confusion and contributing to a lowering of service reliability.
• More jobs will be created in the State's transportation industry.	• Equity of access to bus transportation services will <u>not</u> be enjoyed by all persons regardless of economic status, age, handicap or social condition, especially at those locations that are more costly to serve.
• Inflationary impacts of consumer travel costs will, in the aggregate, be stemmed by lower rate of overall price increases.	• Local bus service restrictions that now forbid private sector competition with urban transit along major corridors would be contrary to the deregulation spirit and intent. Such restrictions would need to be repealed.
• As carriers achieve higher load factors, greater fuel economy per passenger-mile will result.	• The State and local governments may need to become involved in planning, designing, constructing, and operating transfer terminals throughout the State to facilitate intermodal connections and enhance level of service (small operators will be reluctant to invest heavily in fixed facilities).
• Agencies of the federal and State governments will still be able to indict and prosecute companies that act unfairly in restraint of trade.	• The State may need to become coordinator of services and a consumer information center to lend order and understanding to the vast array of fares, schedules, and routes that result from continually changing conditions.
• Motor carrier safety will be assured through authority of the U.S. DOT (BMCS) and State Highway Patrol.	• Peak overloading of services due to seasonal travel changes or other causes may result in a deterioration in service quality, poor transfer connections, and extended travel time.
• Overall, small places in the State will not suffer unduly, because even now under regulation very few places receive frequent service.	
• The growth of private sector transportation will reverse the present trend towards ever increasing numbers of public sector subsidized systems.	
• Government focus will be reoriented toward consumer problems and needs and less in preserving and protecting the industry.	
• A rational pricing process will replace "cross subsidies" and "average-cost pricing" with resulting fares more closely reflecting the cost of providing service.	

Carrier Act of 1935, but higher than that established for the trucking industry in the Motor Carrier Act of 1980 (49 U.S.C. 10922(b)). Certificates of authority should be issued, according to the ABA, should the service proposed "serve a useful public purpose, responsive to a public demand or need". Certificates would not be issued to a subsidized public transportation authority if service is already provided by an authorized private intercity bus operator.

In addition, the ICC would be required to consider the following:

- quality and quantity of available service;
- whether the granting of authority "would tend to conserve fuel";
- whether the granting of authority might result in discontinuance of intercity bus service to communities having no other intercity bus transportation or might impair the operations of existing carriers.

The ICC would be required to reach a final decision on each application within one year after publication in the Federal Register.

Finally, the ABA believes that "the desire for additional bus service and the quality of existing service frequently involves subjective evaluations which cannot be resolved fairly on the basis of written submissions". Therefore, the ABA stance includes a stipulation that the ICC conduct oral hearings on all applications for service which involve the following:

- a substantial extension of regular route authority to originate charter or tour operations in a broad territory;
- questioning of the applicant's safety and operational fitness;
- other issues of fact which cannot be resolved through written submission.

The ICC would like to see a greater freedom of market entry than the ABA. According to the ICC, the current stipulation that a proposed service must be required by public convenience and necessity should be eliminated. Instead, in an effort to promote competition to allow for a variety of quality and price options, any application which can show that the service proposed will serve a "useful public purpose" is presumed to be consistent with the public convenience and necessity. This is the same standard enacted for truckers through the Motor Carrier Act of 1980 and, according to most observers, is being interpreted as meaning virually unrestricted entry, notwithstanding safety and fitness requirements. The ICC would also like to eliminate gateway and circuitous route limitations.

Market Exit. Both the ABA and the ICC positions on regulatory reform appear deficient in fully addressing the issue of market exit. True competition depends on easy market entry and exit. To allow free or nearly free entry without equal freedom for exit is inequitable. The ABA and ICC advocate varying rules and procedures through which intercity bus service could be discontinued.

The ABA supports a market exit procedure allowing the ICC to establish rules for the discontinuance of "essential" regular-route service. Discontinuance of service is defined by the ABA as "a total cessation of service for which there is no adequate substitute and does not refer to changes in or elimination of schedules". Criteria for the determination of "essential" service would be a part of the rules. The procedure would include provisions to provide for adequate notice of any proposed service discontinuation. Should a protest to the service discontinuation be filed, the carrier would be required to submit traffic and revenue data so that the amount of financial assistance (subsidy) required to maintain the service could be determined. The carrier could discontinue the service within 30 days following the filing of a protest, unless the ICC determines that it is an "essential" service. In this case, an investigation would be initiated to explore possible ways to maintain the service. Should the ICC locate financial assistance or another carrier willing to initiate a replacement service, the ICC could order the existing carrier to maintain service for no more than 120 days. The maximum period during which a proposed discontinuance of service could be delayed would be 210 days.

Under similar provisions of a proposed ICC exit procedure, carriers wishing to discontinue a service route would notify the State regulatory agency and all affected communities. Should no protests be filed, the carrier could discontinue service. Should a protest be filed, the service could still be discontinued unless the ICC determines that an inves-

tigation is necessary to locate a replacement carrier or an offer of financial assistance has been made. Thirty days are allowed to complete the investigation. Following the investigation, the ICC may compel the carrier to maintain service for no longer than 60 days if the existing carrier has not made an agreement with an offerer of financial assistance.

Both the ABA and the ICC agree that market exit provisions should encourage carriers to seek subsidies for routes that they had not been permitted to abandon under regulation. However, subsidies are becoming increasingly difficult to find. Furthermore, questions remain as to the definition of an "essential" service and how the forced maintenance of service beyond the time a carrier wishes to discontinue a route may affect market entry. Any regulatory reform proposal must acknowledge the integral relationship of market entry and exit.

Fares. The ABA and the ICC seek a zone of rate freedom within which passenger fares and package express rates could be adjusted without ICC approval. However, the ICC would reserve authority to suspend and investigate fare adjustments considered unduly discriminatory or predatory in nature. The ability to reduce or raise fares is necessary to propagate rational pricing practices and competitive services. The methodology adopted to determine and periodically adjust zones of rate freedom must acknowledge regional differences in operating costs.

Insurance requirements. A minimum level of insurance responsibility is advocated by both the ABA and the ICC. The ABA suggests a minimum level of $5,000,000 for carriers transporting passengers in buses seating 12 passengers or more, and a minimum level of $2,000,000 for carriers transporting passengers in buses having a seating capacity of 11 passengers or less. The ICC suggests minimum insurance levels of $1,500,000 and $750,000 for carriers transporting passengers in buses seating 12 passengers or more and 11 passengers or less, respectively. The Secretary of the Department of Transportation would be able to lower the minimum insurance requirements. Present insurance requirements are below necessary levels to fully protect the public. Most carriers realize this and exceed the minimum requirements currently enforced by the regulatory agencies.

Safety. The ABA advocates provisions prohibiting the ICC from issuing any certificates of authority if the safety fitness of an applicant is challenged. In such cases, the Secretary of the Department of Transportation would have to first certify that the applicant is in compliance with all applicable federal motor carrier safety regulations.

The ICC, on the other hand, would maintain the current practice whereby applicants must prove that they are fit to provide the proposed service. Currently, however, the ICC seldom conducts investigations of an applicant's safety record. Industry representatives and the California Highway Patrol have voiced concern over the increased safety problems which will result from the proliferation of operators following regulatory reform. Current staffing levels of the California Highway Patrol dedicated to safety inspection and enforcement are inadequate to ensure public safety following such reforms. Continuing and enhanced requirements and enforcement are a necessary ingredient in any regulatory reform policy.

Preemption of State Regulatory Authority. Both the ICC and ABA support the preemption of State regulatory authority over interstate carriers. Federal regulatory reform with State preemption would result in interstate carriers having extreme service flexibility, while intrastate carriers would still be subject to State regulatory authority. Federal regulatory reform that preempts State authority would leave interstate carriers with a market advantage and freedom to abandon unprofitable corridors. Many high density routes would be served by both interstate and intrastate carriers. However, interstate carriers could easily reduce fares and modify service patterns to entice intrastate passengers onto their routes.

The timing of regulatory reform is of paramount importance. Although the intercity bus industry regulatory process is in need of reform, action by the State must precede or coincide with implementation of any federal regulatory reform to ensure orderly transition. State action to bring coordination between State and federal regulatory reform programs is needed. The State opposes federal preemption of State authority, favoring to retain independent action to reform the intercity bus regulatory process in California.

See Table 8.3 for a summary of proposals for regulatory reform.

Table 8.3

Comparative Analysis of Existing and Proposed Changes in Laws Regulating Interstate Motor Carriers of Passengers

Subject	Existing Law (ICC)	ABA Position	ICC Position	Caltrans Position
MARKET ENTRY	Proposed service must be required by the public convenience and necessity. ICC considers the public demand for the service, and whether implementation of proposed service would impair operations of existing carriers. In 1979, over 97 percent of the applications for service authority were granted in whole or in part.	Proposed service must be consistent with public convenience and necessity. ICC would be required to consider quality and quantity of existing services; if granting of authority would tend to conserve fuel; and whether granting of authority might result in discontinuance of service to communities having no other intercity bus service or might impair operations of existing carriers.	Virtually unrestricted entry. If applicant can show that the proposed service will serve a "useful public purpose" it is presumed to be consistent with public convenience and necessity.	Unrestricted market entry following determination of fitness of carrier to provide proposed service. The public interest requires freedom of market entry to promote beneficial competition and continuation of intercity bus service. Increased enforcement of carriers operating without proper authority.
MARKET EXIT	States have exclusive jurisdiction over discontinuation of intrastate portions of interstate routes. Carriers wishing to discontinue service can apply to ICC for abandonment authority, transfer operating rights to another carrier, or reduce service to a point of dormancy.	Procedure for service discontinuation would be instituted. ICC would establish rules for discontinuation of "essential" service. Procedure and rules would include definition of "essential" service; public notice of proposed discontinuance; and opportunity for public protests. The ICC would be required to conduct an investigation of all discontinuation requests of services determined to be "essential." Service not defined as "essential" could be discontinued within 30 days following filing of a protest. Should the ICC locate financial assistance or a replacement carrier, the ICC could order the existing carrier to maintain service for no more than 120 days. The maximum period during which a proposed service discontinuation could be delayed would be 210 days.	Following public notice, service could te expeditiously discontinued if no public protests are filed. Should there be protest(s), the service may still be discontinued unless ICC determines that an investigation is necessary to locate a replacement carrier or an offer of financial assistance has been made. Thirty days are allowed for investigation. Following the investigation, the ICC could compel carrier to maintain service for no longer than 60 days if carrier has not made an agreement with an offerer of financial assistance.	Establishment of procedure for expeditious market exit. Following pubic notice of proposed service discontinuation, responsible regulatory agency should gather revelant cost and revenue date, inform appropriate governmental bodies of the carrier's financial assistence requirements, and disseminate information to potential carriers. Existing carrier could be compelled to provide service only for a reasonable period of time following request for service discontinuation.

Table 8.3 (Continued)

Subject	Existing Law	ABA Position	ICC Position	Caltrans Position
FARES	All passenger fares and package express rates subject to suspension, investigation, and approval of applicable regulatory agency.	Establishment of zone of upward and downward fare flexibility. Periodic adjustment to reflect inflationary cost increases. The ICC would retain power to suspend rates believed to be predatory or unduly discriminatory.	Establishment of zone of upward and downward fare flexibility. Provides zone adjustment based upon the percentage change in the Producers Price Index. ICC would retain power to suspend rates believed to be predatory or unduly discriminatory.	Establishment of zone of upward and downward fare flexibility. Periodic zone adjustment based upon a regional price inflation index for intrastate deregulation policy.
INSURANCE REQUIREMENTS	The minimum insurance level for bodily injury or death (single occurrence) is $500,000 for carriers operating under ICC authority and $700,000 for carriers operating under PUC authority (PUC level based on vehicles with a seating capacity of 41 passengers or more).	A minimum insurance level of $5,000,000 for carriers operating vehicles with a seating capacity of 12 passengers or more, and $2,000,000 if the vehicles have a seating capacity of 11 passengers or less.	A minimum insurance level of $1,500,000 for carriers operating vehicles with a seating capacity of 12 passengers or more, and $750,000 if the vehicles have a seating capacity of 11 passengers or less.	The minimum insurance levels for carriers providing intercity bus public transportation should be raised to levels adequate to protect the public, but not prohibitive to market entry.
SAFETY	Applicants must prove they are fit to perform the proposed service. However, the ICC seldom makes an independent evaluation of an applicant's safety record.	ICC prohibited from issuing certificate if the safety fitness of an applicant is challenged. Secretary of DOT must first certify safety fitness of such carriers.	Same as existing law.	Applicant carrier must first obtain documentation from applicable motor carrier safety agency indicating the carrier's fitness to provide proposed service. Increased enforcement of existing safety regulations with an extension of enforcement to include all vehicles operated by intercity bus carriers, regardless of vehicle size.
STATE PREEMPTION	Interstate carriers providing interstate service subject to regulatory oversight of both the ICC and State regulatory agency (PUC).	Preemption of State authority to regulate interstate carriers.	Preemption of State authority to regulate interstate carriers.	Oppose preemption of State authority to regulate intercity bus operators.

Bus Regulatory Reform Act of 1981

The House of Representatives passed the Bus Regulatory Reform Act of 1981 on November 20, 1981. The measure now proceeds to the Senate for consideration in Spring, 1982. The Act, as passed by the House, includes concepts previously introduced by the ABA and the ICC.

Market Entry. The Bus Regulatory Reform Act of 1981 would greatly reduce entry barriers for carriers wishing to implement new or expanded service. A certificate would be issued to any applicant "fit, willing, and able to provide the proposed service". The burden of proof would lay on the protestant to prove, through evidence to the ICC, that the service proposed would not be consistent with the public interest. Applicants proposing service to communities not regularly served by a carrier, service which will be a substitute for abandoned rail or commercial air service, or service to communities to which the current carrier has applied to discontinue service could not be considered "not consistent with the public interest".

Market Exit. The Act would allow service discontinuation at the end of a 20-day period, which begins on the date the carrier files the request for service discontinuation with the ICC. If a protest to the proposed service discontinuation is received within a 20-day period, the ICC would have 90 days from the date of the original discontinuation request to grant the request, unless the ICC finds that the service discontinuation is not consistent with the public interest. The ICC could not compel a carrier to maintain service longer than 180 days after the original discontinuetion request was entered. This relatively short time period would probably not hinder market entry.

Fares. The Act provides for upward and downward fare flexibility within prescribed boundaries. This is similar to both the ICC and ABA proposal.

Insurance. The Act raises the minimum level of financial responsibility for any vehicle with a seating capacity of more than 15 passengers to $5,000,000. The amount may be lowered by the Secretary of Transportation to $2,500,000 for a two-year period beginning with the effective date of the Act. The minimum financial responsibility for any vehicle with a seating capacity of 15 passengers or less is to be raised to $1,500,000.

Safety. The Act provides the Secretary of Transportation with the authority to petition the ICC for suspension of certificates of any carrier conducting unsafe operations.

State Preemption. The Act preempts State regulatory authority over the intrastate operations of interstate carriers. Generally, carriers would appeal to the State regulatory authority for the authority desired. If the appropriate regulatory authority denies the request or postpones action beyond a specified time period, interstate carriers could appeal to the ICC for relief, at which time the ICC would preempt State authority.

In this chapter, the key issues of governmental regulation have been discussed through an examination of current regulatory practices and suggested proposals for regulatory reform. The following chapter sets forth State actions to improve intercity bus transportation in California.

9. State Actions to Improve Intercity Bus Transportation

Public funds for transportation in the State are becoming increasingly sparse as a result of budget cutting, squeezing, and trimming. For intercity public transportation, one practical answer has been private sector bus service.

Private sector intercity buses provide Californians with a basic, energy efficient public transportation alternative. An extensive service network reaches into remote rural areas to link growing communities with major metropolitan centers. This vast network has evolved without extensive public subsidies. Instead, private entrepreneurship and public roadways have been the key.

But this system is in need of State help to improve coordination, bring service to the disadvantaged, and to maintain service over route gaps following regulatory reform. To accomplish these ends, the State will, first of all, give new guidance and focus to existing programs. Proposed State actions, on the other hand, will coordinate with existing State programs and will, to the maximum extent feasible, utilize existing resources and established infrastructure to maximize use of previous public investments.

State actions will adhere to established principles of fiscal frugality. Some actions include redefining the purpose and responsibilities of State regulatory and enforcement agencies which directly influence intercity bus service, while others formulate limited programs directed toward easing the transition resulting from regulatory reform. The former entail a restructuring of the governmental regulatory process, with assurance of beneficial competitive services and enhanced public safety standards. The latter include increased consumer information assistance, limited-term direct financial assistance to subsidize some lost services, and other actions to maintain and improve the intercity bus operating infrastructure.

Essential to both categories is the concept of the Basic State Intercity Bus Network, a network of essential service routes connecting principal locations in California.

EXISTING PROGRAMS AND RESOURCES

Current programs and resources can be given increased focus and direction, while existing public investments can be more efficiently used (see Table 9.1).

Programs

Intercity Bus Service Improvement Program. In 1979, the Mass Transit Assistance Program (SB 620: Mills), authorized $1 million for the State to contract with private carriers for intercity bus transportation. The Department adopted guidelines specifying the purpose of the program to be to support the continuation and development of intercity bus service in California. Funds are available for operating assistance (new, expanded, or innovative service), and for marketing.

Intermodal Facilities Program. The California Legislature has authorized the use of public monies to fund and administer intermodal facilities projects designed to improve the interfacing of two or more modes. The Intermodal Facilities Plan incorporates the Basic State Intercity Bus Network to aid in identifying corridors with greatest opportunity for interface and transfer among modes.

Roadside Bus Facilities Program. Funds are available for construction and maintenance of roadside bus facilities; including bus turnouts, passenger loading areas, passenger benches and shelters, and special traffic control devices.

Funds are also available for fringe area and transportation corridor parking

Table 9.1
Existing State Programs and Resources Contributing to Intercity Bus Transportation

Program/Resource	Explanation	Funding		
		Source	Amount	Time
1. PROGRAMS				
a. Intercity Bus Service Improvement Program	Funding for intercity bus service demonstration projects.	Section 71 (c)(2)(b), Statutes of 1979, (SB 620, Mills)		FY 79-80
	Ten projects selected for funding.		$ 1 million	FY 80-81
	Four new projects and three project extensions selected for funding	Budget Act of 1980	$ 1 million	FY 81-82
	Twenty-six projects submitted for funding.	Budget Act of 1981	$ 1 million	
b. Intermodal Facilities Program	Funding to improve interfacing of two or more modes.	Chapter 460, Statutes of 1978, (SB 1750, Mills)		
	18 projects selected for funding.		$5,918,000	Funds must be encumbered by January 1, 1982
	Seven intermodal interface projects selected for funding.	Section 61, Chapter 161, Statutes of 1979, (SB 620, Mills)	$2,891,995	Funds must be encumbered by June 28, 1982
	Funds appropriated to California Transportation Commission for discretionary allocation. In 1980, six projects totaling $3.4 million were selected and allocated funds. Five additional projects were allocated funds by the Commission from the State Highway Account under Article XIX.	Section 62, Chapter 161, Statutes of 1979, (SB 620, Mills)	$5 million	Funds must be encumbered by June 28, 1982

Table 9.1 (Continued)

Program/Resource	Explanation	Funding		
		Source	Amount	Time
	Funds appropriated to the Department and allocations made by the California Transportation Commission. Five projects have received funding.	Budget Act of 1980	$5 million	Funds must be encumbered by June 30, 1981
	Funds appropriated to the Department and allocations made by the California Transportation Commission.	Budget Act of 1981	$5 million	Funds must be encumbered by June 30, 1982
c. Roadside Bus Facilities Program	Authorized use of up to $2 million in State highway funds annually, with additional funds available for park-and-ride lots.	Statutes of 1979, (SB 620, Mills)		Funds available each fiscal year
		SB 807 (Montoya)	$1,200,000 spent for park-and-ride lots. $1,500,000 spent for park-and-ride lots. $2,000,000 to be spent for roadside bus facilities (estimate).	FY 79-80 FY 80-81 FY 81-82
d. Highway Patrol "On-Terminal" Inspection Program	Inspections are broken into three types: A--buses with PUC/ICC operating authority B--buses not holding PUC certificate (e.g., private organizations) C--factory buses	California Vehicle Code § 34501.c Chapter 615, Statutes of 1980 (AB 496, Thurman	$152,000 (Type A buses only)	FY 81-82
2. RESOURCES				
a. Private intercity transportation carriers in California b. Public transit intercity services (some with private carrier contractors)	Twenty-six certificated carriers currently provide fixed-route intercity bus service. Fifty-three public intercity carriers provide service. Nearly 200 certificated carriers provide charter party service. Approximately 12,000 privately owned vehicles are used to provide public transportation in California.	Private: No direct public subsidization Public carriers: Federal, State, and local funds	ø	Continuous
c. Roadways in California	In excess of 16,000 miles exist as part of the State Highway system, and are available for use by intercity buys carriers.	Federal, State, and local expenditures	$16,000,000,000	June 1, 1912-June 30, 1980

Table 9.2

State Highway Mileage by Highway Type December 31, 1979

LANES	FREEWAY	EXPRESSWAY	CONVENTIONAL	TOTAL
1, 2 and 3	3	974	8,768	9,745
4 and 5	2,267	611	821	3,699
6 and 7	675	3	131	809
8 and over	949	2	5	956
Total	3,894	1,590	9,725	15,209
Unconstructed Roads				1,449
Total State Highway System				16,658

Source: California Statistical Abstract, State of California, 1981.

facilities, where passengers can assemble, leave their cars, and continue their trip by carpool, buspool, transit, or intercity bus service.

Highway Patrol "On-Terminal" Inspection Program. The California Highway Patrol inspects buses used in for-hire transportation in California.

Resources

Private Intercity Bus Transportation Carriers in California. Future expanded service could be provided by the private sector without extensive public subsidies. Private transportation providers possess the knowledge, experience, and equipment to efficiently provide service.

Roadways in California. California roadways connect major industrial and population centers, as well as provide access to rural, isolated communities. The State's investment in these roadways ($22 billion since 1912) can be preserved through continued maintenance and efficient use (see Table 9.2). The intercity bus transportation system operates over these roadways.

RECOMMENDED LONG-TERM STATE ACTION (See Table 9.3)

Regulatory Reform of California Intercity Bus Industry

Regulatory reform of the intercity bus industry is necessary to restore competitive parity for intrastate carriers following federal regulatory reform. Should the federal government not proceed rapidly with regulatory reform, the State will do so independently based on the following reasons:

No evidence of need for public intervention. The economic rationale adopted at the inception of intercity bus regulation has been shown to be not applicable to actual service practice (e.g., absence of economies of scale).

Deregulated competitive intercity transportation market. Intercity bus service is the only remaining fully regulated transportation mode. It must compete in a deregulated market.

Regulatory bureaucracy. The regulatory process has evolved into a slow, cumbersome, costly complexity of rules, procedures, and litigations.

Public benefits. Public benefits of regulatory reform of the intercity bus market include:

- Lower costs for consumers.
- Greater consumer choice.
- Rational resource allocation and pricing.
- Increased insurance and safety requirements.

Salient elements of proposed State regu-

Table 9.3

Recommended Long-Term State Actions

Proposal	Explanation	Funding Range*	Time
A. Regulatory Reform of California Intercity Bus Industry	Regulatory reform of the California intercity bus industry following precepts of efficiency and increased service.	(Staff support)	FY 82-83
B. Basic State Intercity Bus Network Service Subsidies	Limited intercity bus service subsidies for gaps on Basic State Intercity Bus Network.	$40,000-$2,000,000 annually (includes revenue estimate)	Begin: FY 82-83 Duration: Continuous
C. Intercity Bus Service Improvement Program	Continuation of existing program for intercity bus service demonstration projects.	$1-3 million annually (includes revenue estimate)	Begin: FY 79-80 Duration: Continuous
D. Full Mobility (accessible) Intercity Bus Program	Fully accessible (lift-equipped) intercity buses operating in major California travel corridors.	$60,000-$2,000,000 annually	Begin: FY 82-83 Duration: Continuous
E. Transportation Systems Management	Efficient use of existing transportation resources at State's disposal; including traffic engineering, regulatory pricing, management, real property, and other actions and resources to develop and enhance intercity bus service.	(Staff support)	Continuous
F. Intercity Bus Transportation Planning	Continuation of dynamic intercity bus transportation planning process.	(Staff support)	Continuous

*Unless indicated, amounts do not include administration costs (personnel).

Table 9.4

Annual Miles Based on Trips per Week

Frequency (Round Trips Per Week)

Round Trip Mileage	1	2	3	4	5	6	7	14	21	28
10	520	1,040	1,560	2,080	2,600	3,120	3,640	7,280	10,920	14,560
20	1,040	2,080	3,120	4,160	5,200	6,240	7,280	14,560	21,840	29,120
30	1,560	3,120	4,680	6,240	7,800	9,360	10,920	21,840	32,760	43,680
40	2,080	4,160	6,240	8,320	10,400	12,480	14,560	29,120	43,680	58,240
50	2,600	5,200	7,800	10,400	13,000	15,600	18,200	36,400	54,600	72,800
60	3,120	6,240	9,360	12,480	15,600	18,720	21,840	43,680	65,520	87,360
70	3,640	7,280	10,920	14,560	18,200	21,840	25,480	50,960	76,440	101,920
80	4,160	8,320	12,480	16,640	20,800	24,960	29,120	58,240	87,360	116,480
90	4,680	9,360	14,040	18,720	23,400	28,080	32,760	65,520	98,280	131,040
100	5,200	10,400	15,600	20,800	26,000	31,200	36,400	72,800	109,200	145,600
150	7,800	15,600	23,400	31,200	39,000	46,800	54,600	109,200	163,800	218,400
200	10,400	20,800	31,200	41,600	52,000	62,400	72,800	145,600	218,400	291,200
250	13,000	26,000	39,000	52,000	65,000	78,000	91,000	182,000	273,000	364,000
300	15,600	31,200	46,800	62,400	78,000	93,600	109,200	327,600	218,400	436,800

Annual Miles = (Trips per Week) (Round Trip Mileage) (52 Weeks)

*For a graphic representation of annual operating costs after determining actual annual mileage and service cost per mile. See Figure 9.1.

latory reform include the following:

Market entry. Ease of market entry to promote beneficial competition and increased service.

Market exit. Relaxed exit restraints to enhance competition and encourage market entry.

Fares. A zone of rate flexibility.

Insurance requirements. An increase in the minimum level of insurance responsibility.

Safety. Increased safety standards and inspections as a prerequisite to market entry.

State preemption. Coordinated action by federal and State government to compensate for overlapping regulatory jurisdiction within California.

Basic State Intercity Bus Network Subsidies

The State interest requires continued intercity bus service on the Basic State Intercity Bus Network, regardless of the regulatory environment (see Figure 7.6). Market subsidies will be needed for gaps in Network service. The costs of maintaining service on the Network will vary, due to the extent of service deficiency and the cost of providing service. Table 9.4 and Figure 9.1 can be used, in combination, to estimate the cost of maintaining service on the Basic State Intercity Bus Network. Minimal revenues will be derived through the State's program because Network gaps are usually caused by low or negligible current patronage.

Intercity Bus Service Improvement Program

The existing intercity bus demonstration program for new, innovative services must continue. The Program has been funded at $1 million annually over the past three years. However, annual applications exceed available funding and carrier operating costs are increasing. The Program should continue independent of regulatory reform. Carriers are hesitant about implementing new and innovative services to accommodate latent service demands. Based on the Program's experiences during the previous funding cycles, contract funding amounts anticipate a 20 percent revenue return.

Full Mobility (Accessible) Intercity Bus Program

Funds are needed to implement handicapped accessible (lift-equipped) intercity bus service in major California travel corridors. Private carriers are not now required to accommodate wheelchair-bound patrons. Hence, few intercity bus services are available for use by the handicapped. (See Tables 9.5 and 9.6 for the range of available services given different funding amounts.)

It is proposed that the State provide subsidies to carriers for cost of initial capital to retrofit equipment for fully accessible service.

Transportation Systems Management

Resources at the State's disposal could be more efficiently used to improve intercity bus transportation through innovative planning, implementation, and analysis. This would maximize returns on some State investments.

Intercity Bus Transportation Planning

The intercity bus planning process is a dynamic process. Close monitoring of regulatory reforms will allow State policies and funding programs to adjust to new conditions in a timely manner. The planning process must include the following:

- program planning, evaluation, and revision
- plan revisions (updates)
- data collection (service changes, mapping, industry trends, etc...)

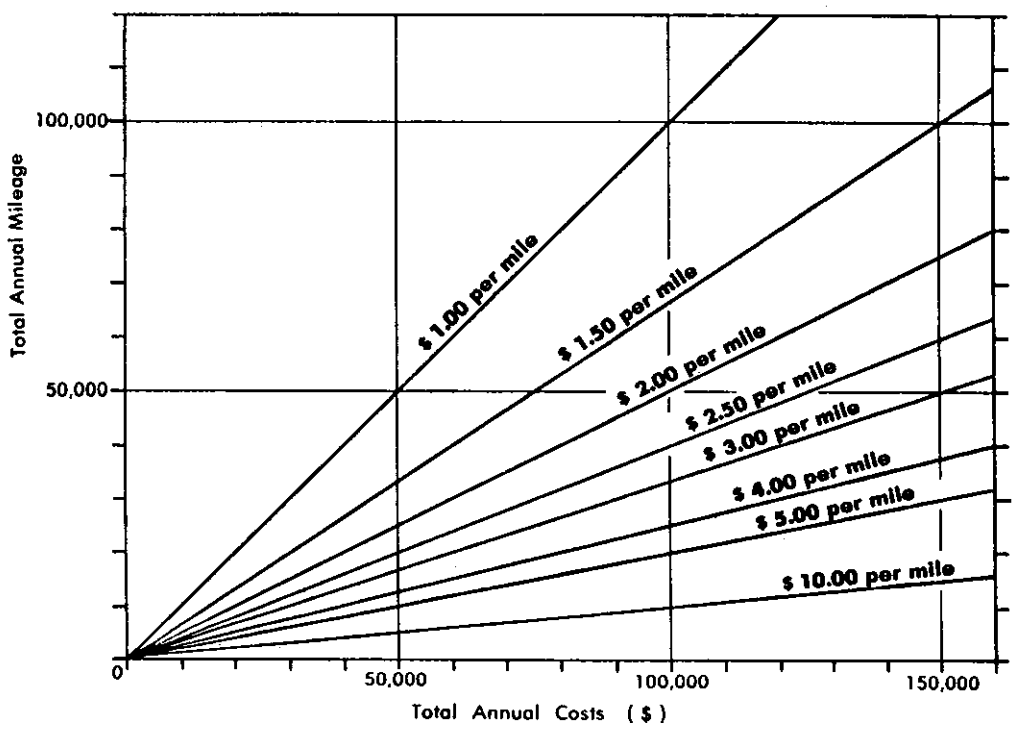


Fig. 9.1 Annual Operating Costs Based Upon Varying Costs Per Mile Rates

Table 9.5

Cost of Accessible Bus Purchase by Number of Service Routes and Level of Service

NO. OF BUSES	1	2	3	4
13	1,950,000	3,900,000	5,850,000	7,800,000
12	1,800,000	3,600,000	5,400,000	7,200,000
11	1,650,000	3,300,000	4,950,000	6,600,000
10	1,500,000	3,000,000	4,500,000	6,000,000
9	1,350,000	2,700,000	4,050,000	5,400,000
8	1,200,000	2,400,000	3,600,000	4,800,000
7	1,050,000	2,100,000	3,150,000	4,200,000
6	900,000	1,800,000	2,700,000	3,600,000
5	750,000	1,500,000	2,250,000	3,000,000
4	600,000	1,200,000	1,800,000	2,400,000
3	450,000	900,000	1,350,000	1,800,000
2	300,000	600,000	900,000	1,200,000
1	150,000	300,000	450,000	600,000

NO. OF ROUTES

*Assumes cost of an accessible lift-equipped bus at $150,000.

Table 9.6

Cost of Accessible Van Purchase by Number of Service Routes and Level of Service

NO. OF VANS	1	2	3	4
10	300,000	600,000	900,000	1,200,000
9	270,000	540,000	810,000	1,080,000
8	240,000	480,000	720,000	960,000
7	210,000	420,000	630,000	840,000
6	180,000	360,000	540,000	720,000
5	150,000	300,000	450,000	600,000
4	120,000	240,000	360,000	480,000
3	90,000	180,000	270,000	360,000
2	60,000	120,000	180,000	240,000
1	30,000	60,000	90,000	120,000

NO. OF ROUTES

*Assumes cost of an accessible lift-equipped van at $30,000.

- special planning studies (e.g.; fare elasticity experiments and on-board surveys).

RECOMMENDED STATE ACTIONS FOLLOWING REGULATORY REFORM (See Table 9.7)

Five-Year Emergency Transition Program

A five-year transition program of funding is needed to ease the change to the new service environment resulting from federal regulatory reform. The program should consist of the following elements:

- Service subsidies
- Consumer information assistance
- Safety inspections for new carriers
- Technical assistance for carriers

Service subsidies. Funds will be used to subsidize limited service over existing routes which lose all service as a result of federal regulatory reform. Minimal revenue will be derived because most routes which lose service currently have negligible patronage.

Consumer information assistance. Funds will be needed to provide the public with information concerning service changes which will occur. Most terminals are controlled by the major carriers. New service providers will use other embarking and disembarking locations which the public will need to be informed of. A centralized information source would help ameliorate this problem. No revenue will be derived.

New carrier safety inspections. Regulatory reform will increase the number of carriers providing service in California. The California Highway Patrol will need additional funds to ensure the continuation of safety inspections for new carriers entering the market. The increased cost of inspections for new carriers can be offset by user fees to be paid by new market entrants.

Technical assistance for carriers. Development and implementation of new and improved intercity bus service following regulatory reform can be assisted through dissemination of technical information to potential intercity bus service providers. New private carriers need to be informed of potential service markets and necessary actions which must be taken as a prerequisite to service implementation (for example, regulatory certification requirements). New carriers will also need technical assistance for routing, scheduling, maintenance, and other operational practices. By coordinating this assistance, the State will encourage the private sector to provide needed intercity bus services following regulatory reform. Carriers will also be encouraged to provide innovative, competitive services in major travel corridors. Nominal fees will be collected from carriers who solicit State technical assistance.

PLAN IMPLEMENTATION

Caltrans will immediately begin the process of implementing the State Intercity Bus Plan through legislative proposals and Departmental budget requests.

Regulatory Reform of the California Intercity Bus Industry

The Department will immediately begin the process of reforming the California intercity bus regulatory structure. Should federal reform precede State action, there will be a need to expeditiously implement similar reform measures in California to restore competitive parity for solely intrastate carriers. If federal action is halted or postponed, the Department will continue its efforts toward regulatory reform of outdated and inefficient current regulatory mechanisms.

Fiscal Year 1982-83 Budget Requests

The Department has requested that funds be available and ready in Fiscal Year 1982-83 to begin the Long-Range Program. In addition, the Department is preparing legislative proposals for regulatory reform of the California bus industry and a Five-Year Emergency Transition Program:

- Continuation of the Intercity Bus Service Improvement Program ($500,000)
- Basic State Intercity Bus Network service subsidies ($50,000)
- Implementation of the Full Mobility Intercity Bus Program ($2,000,000)
- Updating the State Intercity Bus Plan

Table 9.7

Recommended State Actions Following Regulatory Reform (Five-Year Emergency Transition Program)

Proposal	Explanation	Funding Ranges*	Time
A. Service Subsidy Program	A five-year transition program of funding to support service routes lost following regulatory reform of intercity bus industry.	$850,000-$1,100,000 annually	Begin: FY 82-83 Duration: Five Years
B. Consumer Information Assistance	Service, route, schedule, fare and miscellaneous information to be provided for the public. (Toll-free information phone number).	$38,000-$500,000 annually	Begin: FY 82-83 Duration: Five Years
C. Intercity Bus Transportation Safety	Additional funding for the California Highway Patrol to conduct safety inspections of new carriers entering the market. (Proposed costs would be adequate for 120-240 additional terminal inspections).	$45,000-$91,000 annually (State costs can be returned by user fees)	Begin: FY 82-83 Duration: Five Years
D. Intercity Bus Service Development and Technical Assistance Program	Technical assistance for small and inexperienced intercity bus carriers that are entering the industry. Assistance may included guidance in regulatory compliance, maintenance and safety, management and contracting.	$150,000-$200,000 annually (includes estimated revenue credit)	Begin: FY 82-83 Duration: Five Years

*Unless indicated, amounts do not include administration costs (personnel).

Legislative Alternative

Although the Department recommends the specific actions previously mentioned, the Legislature also has the alternative of taking no action. Should federal regulatory reforms be enacted without concurrent State action, California carriers could be placed at a serious, competitive disadvantage. This imbalance could undermine and threaten service continuation by these California carriers. Regulatory reform at any governmental level (federal and/or State) will undoubtedly reduce bus service in some areas of the State. Without State assistance through mechanisms such as the Five-Year Emergency Transition Program, local and regional governments may have to consider providing assistance to retain existing services.

As directed by the Legislature, the Department has set forth alternatives for future State involvement in the intercity bus area. This Plan has included proposed State actions and an estimate of the costs and revenues of each program. It is essential that the State expeditiously implement the State Intercity Bus Plan. Intercity bus service is an essential, energy efficient component of the State's transportation system. As such, intercity bus transportation must be maintained and enhanced to ensure a clean, safe, and prosperous California for our future.

Glossary

This section contains specific definitions that form a common base of understanding when discussing "intercity bus" issues. In some cases, references are cited to support the definitions.

Abandonment -- A proceeding before a regulatory body in which authority is sought by a carrier to vacate all or part of its previously certificated authority for service (ABA).

Agent, Agency -- An individual, partnership, or corporation authorized by a common carrier to sell transportation (ABA).

Airporter -- A form of Passenger Stage Corporation that takes all passengers to or from a designated air terminal, usually with no local service between intermediate points en route --(See "Authority").

Alternate Route -- An "alternate route" is a route that may be used for operating convenience only, serving no intermediate points (110 M.C.C.).

Application -- A petition presented to a regulatory body by a carrier seeking authority to institute bus service; to abandon a route already certified; to temporarily suspend operation over a specific route; to merge with or buy out another carrier's operations; or to obtain waiver to deviate from the terms of laws, rules, or regulations (ABA).

Authority -- The right and duty of a carrier to engage in the transportation of passengers that is granted by a regulatory body by means of a Certificate of Public Convenience and Necessity (ABA).

Balanced Transportation -- A system of transportation services and facilities characterized, in part, by the following five elements:

- capacity: supply should be proportional demand at all points in the system, to include trunkline and feeder interfaces.

- directionality: two-way travel should be possible along service corridors; within reason and geographic limits, travel should be possible in any cardinal direction.
- mix of service classes: passenger travel accommodations should range from "no frills" to "luxury," scheduled to demand-responsive, group travel to individual service.

- alternate service patterns: speed and convenience may be offered through a mix of nonstop, express, and local schedules serving long-distance and regional travelers.

- time of service: convenient arrivals/departures along service corridors and at major traffic centers should reflect preference for daytime schedules, consistent with demand and service frequency.

Basic State Intercity Bus Network -- A system of principal locations and their connecting highway segments that prescribe the location of any State-assisted infrastructure or services of intercity bus transportation.

Bus -- Any motor vehicle designed for carrying more than ten persons, including the driver, and used or maintained for the transportation of passengers, except that a motor vehicle designed for carrying not more than 12 persons, including the driver, which (1) is used for nonprofit transportation of adults to and from a work location as part of a carpool program, or (2) is used for transporting only members of a household and the owner of the vehicle, shall NOT be considered to be a bus (exception by V. C. Sec. 233).

Bus Mile -- A unit of production, equivalent to the operation of one bus over one mile of route.

Bus Stop -- Any service point lacking amenities such as ticket sales or passenger waiting areas. Since a passenger may board or leave a bus at any place deemed safe and lawful, there are an unlimited number of "bus stops" on a conventional highway route.

Bus Station -- Any service point having a passenger waiting area or ticket sales agency.

Bus stop, bus station, bus depot, and various other terms are used interchangeably by the general public when referring to a particular bus facility.

Bypass Route -- A "bypass route" is a route designated by proper authorities for the purpose of avoiding traffic congestion in populated areas (110 M.C.C.).

Coach -- (See "Motor Coach").

Commercial Air Transportation -- The form of scheduled air service being offered by commuter and major air carrier airlines in both domestic and international operations.

Commission Agency -- An agency authorized to sell bus transportation on a commission basis, usually ten percent of fare (ABA).

Common Carrier -- A carrier that is a private provider of transportation services, regulated by government and obligated to serve the public, to deliver as promised, to charge reasonable prices and service (Harper, 1978). Common carriers may be designated as public utilities (Constitution, State of California, Article XII, Section 3).

Cross Subsidy -- The process through which one aspect of an intercity bus operation supports another unprofitable or marginally profitable aspect. With reference to fixed-route service, economic regulation allows monopoly rights on profitable routes while also requiring the same carrier to serve unprofitable routes. The carrier maintains a systemwide profit through the cross subsidy.

CTC (California Transportation Commission) -- The body established by AB 402 to advise and assist the Secretary of the Business, Transportation and Housing Agency and the Legislature in formulating and evaluating State policies and plans for transportation programs.

Deadhead -- A term used to describe the nonrevenue movement of a bus that is not in service, often en route to garage or to first stop on a route.

Depot -- A "depot" is a service point where driver extra boards are maintained and/or vehicles are garaged.

Deregulation -- The act or process of removing restrictions and regulations (Webster's New Collegiate).

Destination -- The geographic point at which a journey ends.

Detour Route -- A "detour route" is a route designated by proper authorities for public use while the highways normally used between specified points are temporarily closed or restricted, as by lowered weight limits or by repairs and construction (110 M.C.C.).

Differential Pricing -- A system of pricing transportation service whereby the carrier charges different prices to different segments of passenger traffic for essentially the same service (e.g., age, length of stay, family connection, military status, etc.).

Economic Deregulation -- The act or process of removing restrictions and laws that deal with the entry, exit, fares, adequacy of service and financial competence of private providers of public transportation services. It does not include deregulation of laws relating to safety or insurance.

EIR (Environmental Impact Report) -- A detailed statement setting forth the environmental effects and considerations pertaining to a project as specified in Section 21100 of the California Environmental Quality Act.

Entry -- The initiation of service over a specific intercity bus route as authorized by the appropriate regulatory agency.

Equipment Service Point (Charter) -- A location where vehicles are positioned and from which they may be dispatched and deadheaded to, and from, charter party pickup/destination points.

Exit -- The discontinuation of intercity bus service over a particular route as authorized by the appropriate regulatory agency.

Express Service -- Sometimes called "limited service," this form of bus routing serves only a few selected points between principal termini. It is intended to offer a balance between long distance and local travel needs.

Extra Board -- The pool of additional drivers that are available for assignment, as needed (ABA).

Extra Section -- An additional coach added to accommodate the excess passenger scheduled demand of a departure.

Feeder Service -- Intercity bus branch lines that furnish patrons into trunkline operations.

Flag Stop -- A regular route service point where coaches will stop only upon being signaled (generally not a time-point on a route).

Gateway (Gateway Point) -- A specific transfer point that must be served (in compliance with terms of a certificate of public convenience and necessity).

Goal -- The end toward which effort is directed; it is general and timeless (State Transportation Board).

Gypsy Operator -- An operator of buses who does not hold proper authority (ABA).

Haul -- A term used to describe the transportation provided in moving a passenger or an item of property from origin to destination.

Intercity -- "Intercity" travel is travel between two distinct incorporated cities, towns, or inhabited residential clusters that are neither adjoining nor within the same or contiguous urbanized areas as defined by the U.S. Bureau of Census.

Intercity Bus Industry -- The individuals, partnerships, firms, or corporations that are operating as common carriers in the provision of intercity bus transportation.

Intercity Bus Transportation -- A form of fixed-route bus service operating in an intercity mode, carrying the general public according to a published schedule. Riders are not subject to special group membership or other discriminating criteria (such as age or handicap). The term "intercity bus" is commonly used among government officials and representatives of industry, yet it has no legal or lawful interpretation suitable for the planning and development of an intercity bus plan.

Intercity Travel Significance -- Any bus route located on the Basic State Intercity Bus Network.

Interline -- "Interline" travel is performed whenever a passenger or an express shipment is transported over the routes of two or more carriers between trip origin and trip destination.

Intermediate Destination -- The geographic point along a route where a stopover is made.

Intermediate Service Point -- Any stop made between scheduled origin and destination points. Most service points are located at "intermediate" places along a bus route.

Interstate Highways -- Highways which transverse state or international boundaries.

Interstate Service -- The transporting of individuals by bus across state lines (regulated by the Interstate Commerce Commission).

Intrastate Service -- The transporting of individuals by bus only between points within a single state (regulated by state public utilities commissions).

Joint Rate -- The charge for transportation of passengers between two points over the routes of two or more carriers, usually less than the sum of the separate fares completed by each carrier.

Layover Time -- The amount of non-operating time spent at an intermediate stop.

Limousine -- A form of charter-party carrier that utilizes a vehicle capable of seating up to fifteen persons only and operates under a permit issued by the California Public Utilities Commission.

Load Factor -- The load-to-seating ratio used to measure the degree of crowding aboard a bus. Load factor may be calculated as the ratio of passenger miles to bus miles divided by the seating capacity of the vehicle.

Master Licensing -- The process of granting operating authority based solely upon "financial fitness" rather than proof of public convenience and necessity. The regulatory body determines a "general need" for the provision of service and any carrier who displays financial fitness may provide that service.

Median -- A value in an ordered set of values below and above which there is an equal number of values.

Motor Coach -- A "motor coach" is a bus that has been specially designed for use by carriers.

Network -- A planimetric representation of routes and service points used by carriers.

Nonstop Service -- This form of bus routing provides rapid movement between principal termini with few, if any, intermediate stops.

Objective -- A completed action or point to be reached; it is capable of both attainment and measurement. Objectives are successive levels of achievement in the movement toward a goal and should be tied to some time-specific period for implementation programs. (State Transportation Board)

Off-line -- Service or facility located away from the actual transportation route (e.g., neighborhood travel agency).

Off-Network Routes -- Intercity bus routes which are not part of the Basic State Intercity Bus Network.

One-way -- The term applied to a fare, rate, charge, or route between point of origin and destination in one direction only.

Operating Ratio -- The ratio or relation of operating expense to gross revenue.

Origin -- The geographical point at which a journey begins.

Package Express Service -- "Package express service" consists of the transportation of packages in special compartments of buses, incidental to intercity bus passenger transportation. Packages must have no dimension in excess of 60 inches, and the sum of length, width, and height measurements must be no greater than 141 inches. Declared value of a package (as a single shipment) may not exceed $1,000 (ICC). The maximum weight of any single package is 100 pounds.

Passenger Rail Transportation -- The form of passenger train service operating in an intercity mode, carrying the general public according to a published schedule. Users are not subject to special group membership or other discriminating criteria such as age or handicap.

Passenger Stage -- A "passenger stage" is any motor vehicle used by a carrier to transport persons, baggage, or express (when baggage or express is transported incidental to the transportation of passengers). (PUC Sec. 225)

Passenger Stage Corporation -- A "passenger stage corporation" is a carrier operating between fixed termini or over a regular route except as stated below. The following are NOT passenger stage corporations (PUC Sec. 226):

(a) Any operation having 98 percent or more of total route mileage within a single city.

(b) Any operation consisting solely of the transportation of school children between home and school.

(c) Any operation transporting school children or college students to or from school or college activities when no charge is collected on an individual fare basis.

(d) Any operation using a motor vehicle designed for carrying 15 or fewer passengers, traveling between place of residence and place of employment, and with driver himself en route to or from his place of employment.

Policy -- A course of actions selected from among alternatives (with given conditions) to guide and determine present and future decisions on development and implementation matters. (State Transportation Board)

Principal Location -- A county seat, largest city in a county, an urban area with a population of 5,000 or greater, or a National or State Park with an annual attendance of one million or greater.

Profitable -- The excess of returns over expenditures in a transaction or series of transactions.

Regular Route -- A specified, predetermined route between fixed termini, usually defined in a carrier's authority.

Regulatory Reform -- (See "Deregulation".)

Revenue Equipment -- A bus company's vehicles available for income producing fixed-route and/or charter service.

Round Trip -- A fare, rate, charge, route, or ticket between origin and destination in both directions either via same route or different route (A.B.A.).

Route -- A "route" is a designated highway or series of highways over which intercity bus transportation may operate.

RTPA -- Regional Transportation Planning Agency -- created by AB 69 (1972) to prepare regional transportation plans and designated by the Business, Transportation and Housing Secretary to receive and allocate transit funds.

Run -- A regular route driver's set of schedules and other bus or station duties, bid for as a unified tour of duty.

Russell's Guide -- The Official National Motor Coach Guide of scheduled intercity bus service in North America.

Scenario -- An account or synopsis of a projected course of events.

Schedule -- A timetable for a specific service operated by a single vehicle, one direction at a certain time of day.

Service Frequency -- The number of times that an intercity bus operates over a regularly scheduled fixed-route.

Service Loss Potential Index -- A computed arithmetic value that represents the degree to which a particular intercity bus route segment might be subject to low-profit or unprofitable operation.

Service Point -- A "service point" is a location along a route where the discharging or boarding of passengers is authorized.

Short Run -- A term used to describe the routing of buses whereby the bus operates only over a portion of a designated route, usually to avoid congested or low-demand route segments.

Sightseeing Service -- A form of passenger stage corporation that takes passengers on a continuous round trip, usually returning to the point of origin, with no local service between intermediate points en route -- (See "Authority").

Special Operations -- Motor coach tours operated under authority and made available to the general public with tickets sold on an individual basis.

STIP -- State Transportation Improvement Program -- annually required schedule of projects for transportation development over the upcoming five years.

Station -- A "station" is a service point where tickets for transportation services are sold and facilities for passenger comfort may be provided.

Tariff -- A publication containing the fares, rates, charges, classification rates, rules, and regulations covering the sale of transportation of passengers, baggage, and package express (ABA).

TDA – Transportation Development Act -- Senate Bill 325 (1972) established a Local Transportation Fund for each county. These funds are derived from one-fourth cent of the six cent State retail sales tax.

Terminal -- A "terminal" is the last service point on a route, necessitating all passengers to be discharged.

Through-ticketing -- A ticketing process whereby transportation of passengers or package express is provided from the point of origin to the final destination and where use of two or more transportation systems or routes is necessary.

Timetable -- A publication showing times of service and identifying major service points along routes.

TSM (Transportation Systems Management) -- transportation techniques and strategies which allow the more efficient use of existing transportation services and facilities.

Transfer Point -- A "transfer point," "transfer station," "transfer terminal," or "transfer depot" is a common service point on two or more routes where passengers, baggage, and express may be interchanged from route to route or from mode to mode.

Trunkline Service -- Primary intercity travel routes which, for the most part, are located along high-traffic corridors for the transportation of long-distance through traffic.

Turn-Back -- A term used to describe the routing of buses whereby the bus operates only over a portion of a designated route, usually to avoid congested or low-demand route segments.

Value-Based Rates -- (See "Differential Pricing".)

Technical Supplement is Available

Upon Request

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CALIFORNIA STATE TRANSPORTATION MAP

1980

Miles
0 5 10 20 30 40
0 10 20 30 40 50 60
Kilometers

BUS CARRIER INDEX

REGIONAL TRANSIT DISTRICT CARRIERS

1. ALAMEDA-CONTRA COSTA TRANSIT DISTRICT
2. BAY AREA RAPID TRANSIT DISTRICT EXPRESS BUS SERVICE
3. GOLDEN EMPIRE TRANSIT DISTRICT
4. GOLDEN GATE BRIDGE, HIGHWAY AND TRANSPORTATION DISTRICT
5. MARIN COUNTY TRANSIT DISTRICT
6. NORTH SAN DIEGO COUNTY TRANSIT DISTRICT
7. ORANGE COUNTY TRANSIT DISTRICT
8. SACRAMENTO REGIONAL TRANSIT DISTRICT
9. SAN DIEGO METROPOLITAN TRANSIT DEVELOPMENT BOARD
10. SAN MATEO COUNTY TRANSIT DISTRICT
11. SANTA BARBARA METROPOLITAN TRANSIT DISTRICT
12. SANTA CLARA COUNTY TRANSIT DISTRICT
13. SANTA CRUZ METROPOLITAN TRANSIT DISTRICT
14. SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT
15. STOCKTON METROPOLITAN TRANSIT DISTRICT

OTHER PRIVATE CARRIERS

1. AMADOR STAGE LINES, INC.
2. CALAVERAS TRANSIT CO.
3. DESERT STAGE LINES
4. FOSTER'S TRANSPORTATION SERVICE
5. GOVERNMENT SERVICES INC.
6. INTER MOUNTAIN STAGE CO.
7. KERNVILLE STAGE & FREIGHT LINES OF CALIFORNIA
8. LAS VEGAS-TONOPAH-RENO STAGE LINES, INC.
9. THE MENDOCINO STAGE
10. MEXICOACH, INC.
11. MT. LASSEN MOTOR TRANSIT, INC.
12. ORANGE BELT STAGES
13. PEERLESS STAGES, INC.
14. REDWOOD EMPIRE LINES
15. SIERRA HIGHLANDS BUS CO., INC.
16. STORER TRANSPORTATION SERVICE, INC.
17. SUN VALLEY BUS LINES
18. TRAVELLER'S TRANSIT
19. YOSEMITE PARK & CURRY CO.
20. MISSION STREET JITNEYS
21. MOUNTAIN AREA TRANSIT CO.
22. VACA VALLEY BUS LINES

MUNICIPAL CARRIERS

1. CITY OF ADELANTO
2. CITY OF ARCADIA DIAL-A-RIDE
3. CITY OF ATASCADERO DIAL-A-RIDE
4. ARCATA AND MAD RIVER TRANSIT SYSTEM
5. CITY OF AUBURN
6. CITY OF BANNING
7. CITY OF BARSTOW DIAL-A-RIDE
8. CITY OF BEAUMONT TRANSIT
9. BENECIA-VALLEJO STAGELINES, INC.
10. CITY OF CAMARILLO
11. CITY OF CERES DIAL-A-RIDE
12. CITY OF CHULA VISTA
13. CITY OF CLAREMONT DIAL-A-RIDE
14. COALINGA TRANSIT SYSTEM
15. CITY OF COMMERCE BUS LINES
16. CITY OF COMPTON DIAL-A-RIDE
17. CITY OF CONCORD TRANSIT
18. CORONA DIAL-A-RIDE
19. CITY OF CUDAHY
20. CULVER CITY MUNICIPAL BUS LINES
21. CITY OF DAVIS DIAL-A-RIDE
22. CITY OF DELANO DIAL-A-RIDE
23. DIXON COMMUNITY ACTION COUNCIL
24. CITY OF DELANO DIAL-A-RIDE
25. ESCALON PUBLIC TRANSPORTATION SERVICE
26. CITY OF EUREKA
27. CITY OF FAIRFIELD DIAL-A-RIDE
28. CITY OF FILLMORE
29. FOLSOM STAGELINES
30. FRESNO TRANSIT
31. FULLERTON DIAL-A-RIDE
32. GARDENA MUNICIPAL BUS LINES
33. CITY OF HERMOSA BEACH
34. CITY OF HEALDSBURG
35. HEMET-SAN JACINTO DIAL-A-RIDE
36. HOLLISTER SAN TRAN SERVICE
37. HUMPREY GO-BART
38. LAGUNA BEACH MUNICIPAL BUS LINES
39. LA HABRA-BREA DIAL-A-RIDE
40. CITY OF LA MESA
41. CITY OF LA MIRADA
42. CITY OF LIVERMORE RIDEO
43. LOMPOC TRANSIT DIAL-A-RIDE
44. MARGUIRETE SHUTTLE SERVICE
45. CITY OF MERCED TRANSIT SYSTEM DIAL-A-RIDE
46. MODESTO MOTOR BUS SERVICE
47. CITY OF MONROVIA DIAL-A-RIDE
48. MONTEBELLO MUNICIPAL BUS LINES
49. CITY OF MONTEREY PARK DIAL-A-RIDE
50. MORENO VALLEY DIAL-A-RIDE
51. CITY OF MORRO BAY DIAL-A-RIDE
52. NAPA CITY BUS
53. NORCO DIAL-A-RIDE
54. NORWALK TRANSIT SYSTEM
55. ORANGE-VILLA PARK DIAL-A-RIDE
56. PERRIS DIAL-A-RIDE
57. PETALUMA MUNICIPAL TRANSIT
58. CITY OF RIO VISTA
59. RUBIDOUX DIAL-A-RIDE
60. SALINAS TRANSIT SYSTEM
61. SAN DIEGO TRANSIT CORP.
62. SAN DIEGO DIAL-A-RIDE
63. SAN FRANCISCO MUNICIPAL RAILWAY
64. CITY OF SAN JOSE PARK & RIDE
65. CITY OF SAN LUIS OBISPO
66. CITY OF SANTA FE SPRINGS
67. SANTA MONICA MUNICIPAL BUS LINES
68. SANTA ROSA MUNICIPAL TRANSIT
69. SEBASTOPOL TRANSIT
70. SIMI VALLEY TRANSIT
71. CITY OF SOUTH GATE DIAL-A-RIDE
72. CITY OF SOUTH LAKE TAHOE
73. CITY OF THOUSAND OAKS BUS SERVICE
74. TORRANCE TRANSIT SYSTEM
75. CITY OF TRACY DIAL-A-RIDE
76. CITY OF TURLOCK DIAL-A-RIDE
77. CITY OF UNION CITY
78. CITY OF VACAVILLE
79. VALLEJO TRANSIT LINES
80. CITY OF WALNUT CREEK

COUNTY CARRIERS

1. AMADOR RAPID TRANSIT
2. ANTELOPE VALLEY BUS
3. COLUSA COUNTY TRANSIT SYSTEM
4. CUESTA COLLEGE SHUTTLE
5. TRI-DELTA TRANSIT AUTHORITY
6. DEL NORTE CITY & PUBLIC BUS
7. DESERT HOT SPRINGS TEL-A-RIDE
8. GOLD COUNTRY STAGE
9. HUB AREA TRANSIT AUTHORITY
10. HUMBOLT TRANSIT AUTHORITY
11. LAKE ELSINORE TRANSIT SYSTEM
12. LONG BEACH PUBLIC TRANSPORTATION CO.
13. MENDOCINO TRANSIT AUTHORITY
14. MONTEREY PENINSULA TRANSIT
15. MORRO BAY – CAMBRIA BUS SERVICE
16. COUNTY OF NAPA DIAL-A-RIDE
17. NORTH COASTAL TRANSIT
18. OMNITRANS
19. ORANGE COVE-PARLIER TRANSIT
20. PALM DESERT TEL-A-RIDE
21. PALO VERDE VALLEY TRANSIT AGENCY
22. PLACER COUNTY MINI BUS
23. RIVERSIDE TRANSIT AGENCY, COUNTY OF RIVERSIDE
24. ROSEVILLE AREA DIAL-A-RIDE
25. SAN DIEGO COUNTY NORTHEAST RURAL BUS SYSTEM
26. SAN DIEGO COUNTY SOUTHEAST RURAL BUS SYSTEM
27. SISKIYOU COUNTY AREA TRANSIT
28. SANTA MARIA-ORCUTT-GUADALUPE
29. SONOMA COUNTY AREA TRANSIT
30. SOUTH COAST AREA TRANSIT
31. SOUTH COUNTY AREA TRANSIT
32. SUNLINE TRANSIT AGENCY
33. TAHOE AREA REGIONAL TRANSIT
34. THOUSAND OAKS-CAMARILLO-VENTURA BUS SERVICE
35. COUNTY OF TUOLOMNE
36. TRI-CITY BUS, COUNTY OF NAPA
37. UNITRANS-UNIVERSITY TRANSPORT SYSTEM
38. WEST CONTRA COSTA COUNTY TRANSIT AUTHORITY
39. YOLO COUNTY MINITRANS
40. COUNTY OF VENTURA ROAD DEPT.
41. WESTRANZ TRANSIT SYSTEM

SEE REVERSE SIDE FOR ADDRESSES OF CARRIERS LISTED ABOVE

FERRY SERVICE IN THE SAN FRANCISCO BAY AREA (SEE MAP BACK FOR DETAILS)

FERRY SERVICE IN THE LOS ANGELES AREA (SEE MAP BACK FOR DETAILS)

COMMERCIAL AIR

CRESCENT CITY (CEC)
EUREKA/ARCATA (ACV)
REDDING MUNICIPAL (RDD)
SACRAMENTO METROPOLITAN (SMF)
STOCKTON METROPOLITAN (SCK)
MODESTO CITY-COUNTY (MOD)
MERCED MUNICIPAL (MCE)
FRESNO AIR TERMINAL (FAT)
MONTEREY PENINSULA (MRY)
SANTA BARBARA MUNICIPAL (SBA)
LOS ANGELES INTERNATIONAL (LAX)
PALM SPRINGS MUNICIPAL (PSP)
SAN DIEGO INTERNATIONAL (SAN)
SAN FRANCISCO INTERNATIONAL (SFO)
OAKLAND INTERNATIONAL (OAK)
SAN JOSE MUNICIPAL (SJC)
CABRILLO NAT'L MON

Major Airlines Serving
AA AMERICAN AIRLINES
BN BRANIFF INTERNATIONAL AIRWAYS
DL DELTA AIR LINES
NA NATIONAL AIRLINES
NW NORTHWEST AIRLINES
OC AIR CALIFORNIA
PA PAN AMERICAN WORLD AIRWAYS
PS PACIFIC SOUTHWEST AIRLINES
RW HUGHES AIRWEST
TW TRANS WORLD AIRLINES
UA UNITED AIRLINES
WA WESTERN AIRLINES

LEGEND

- GREYHOUND LINES, INC.
- TRAILWAYS, INC.
- REGIONAL TRANSIT DISTRICT CARRIERS
- OTHER PRIVATE CARRIERS
- MUNICIPAL CARRIERS
- COUNTY CARRIERS
- AVAILABLE SERVICE IN URBAN AREAS *(ROUTES NOT SHOWN)*
- ANY DASHED LINE INDICATES A RESTRICTION OR IRREGULARITY IN SERVICE *(CONSULT CARRIER)*
- PASSENGER RAILROADS
- RAILROAD STATION
- BART STATION
- COMMUTE TRAIN STATION
- MAJOR AIRPORT
- AMTRAK BUS CONNECTOR
- HIGHWAYS

ROUTES AND SCHEDULES ARE SUBJECT TO CHANGE

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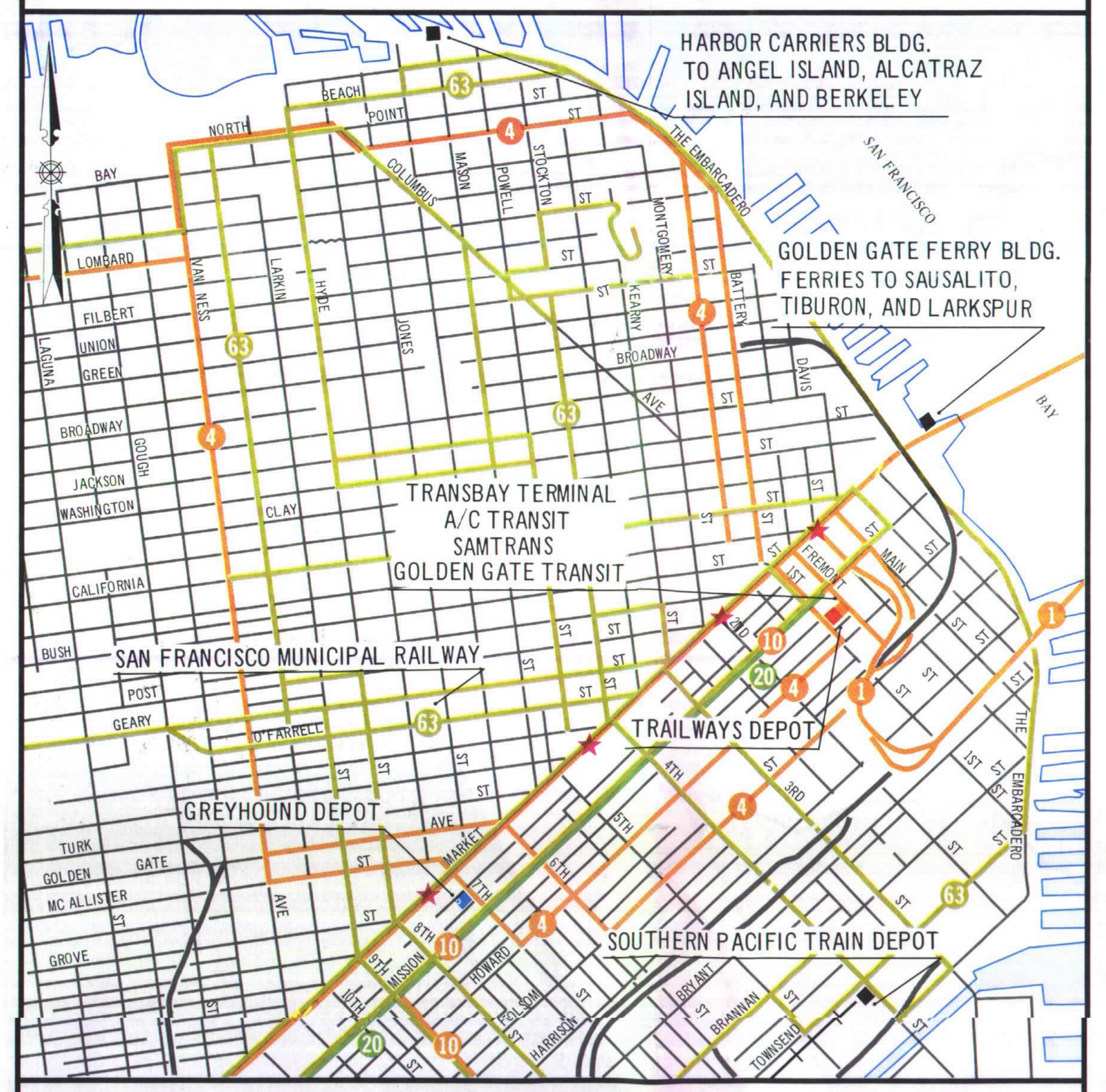
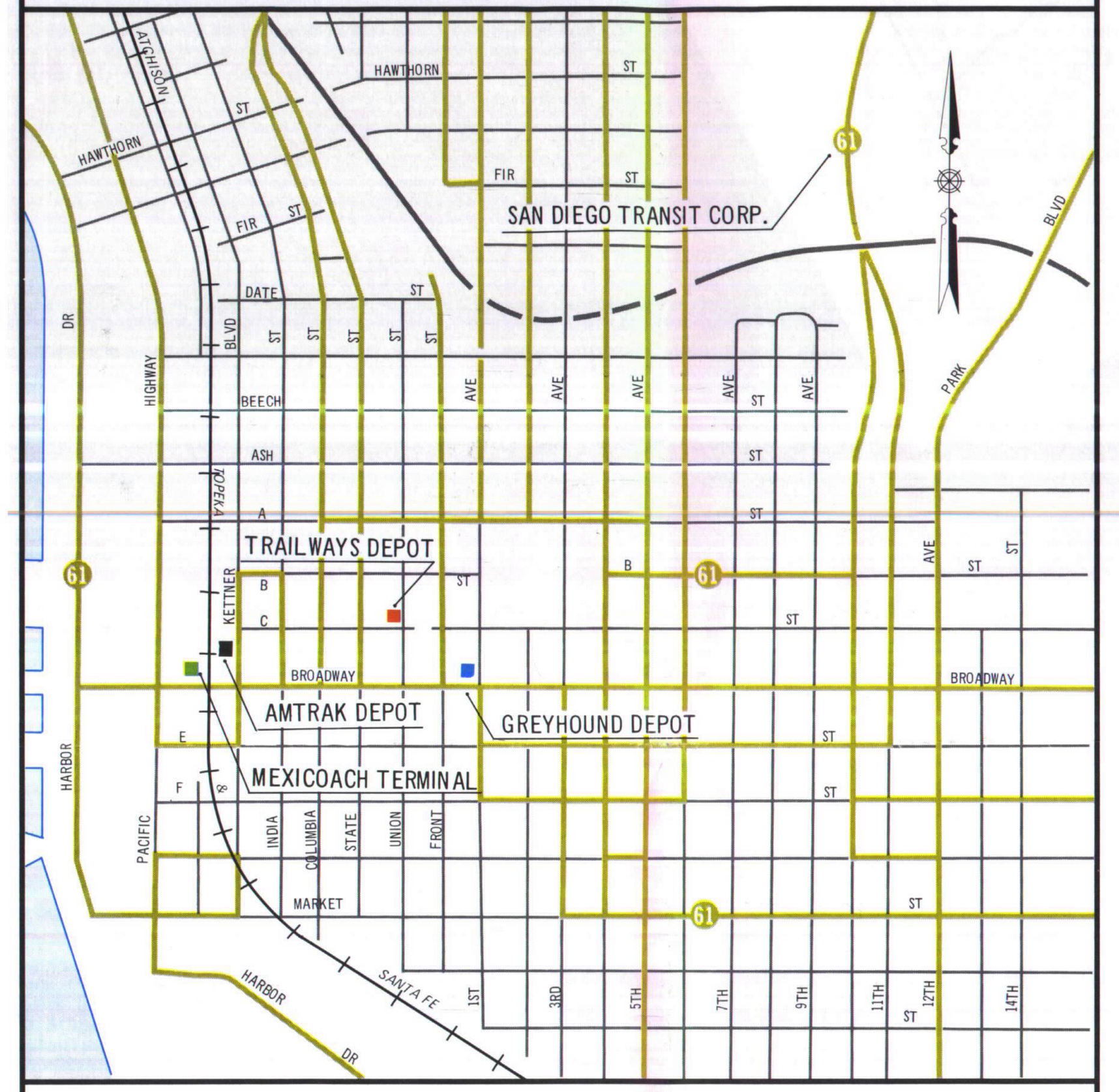
Preparation of this map has been financed in part through a grant from the U.S. Department of Transportation, Urban Mass Transportation Administration.

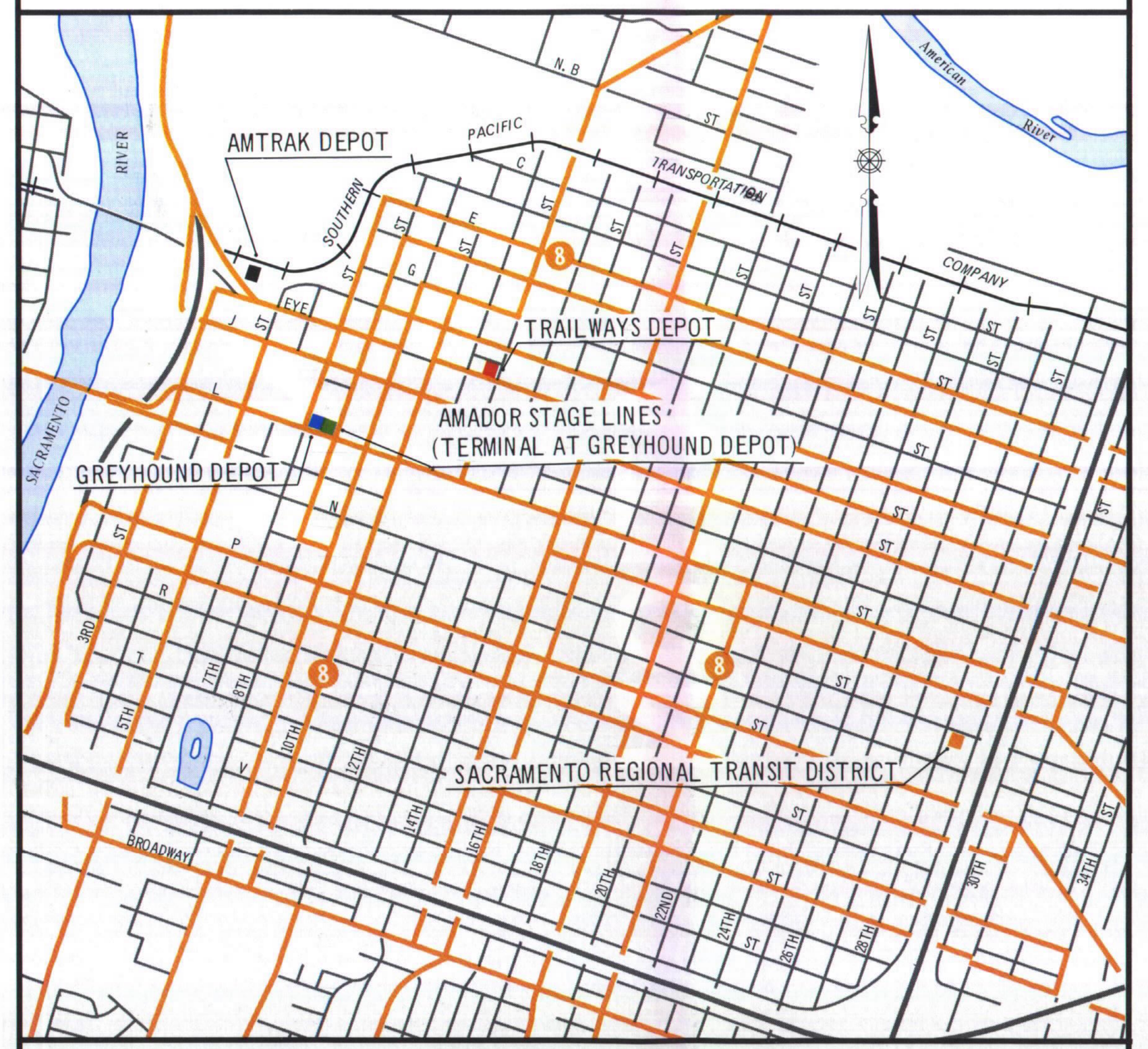
LOS ANGELES



SAN FRANCISCO



SAN DIEGO



SACRAMENTO

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TAKE PUBLIC TRANSIT TO RECREATION AREAS

SELECTED PARKS & RECREATION AREAS	GRID COORDINATES	BUS/RAIL SERVICE*	LODGING	CAMPGROUNDS	HIKING TRAILS	FOOD	SERVICE RESTRICTIONS
Ano Nuevo State Reserve	L-1	10			X		January Only
Doheney State Beach	V-5	● 7 ●		X		X	
Golden Gate National Recreation Area	J-1	4	X	X	X	X	
Half Moon Bay State Park	K-1	10 ★		X		X	From San Francisco via BART with SamTrans connection
Joshua Tree National Monument	W-8	3		X	X	X	
Montara State Beach	K-1	10 ★					Daly City Bart station with Samtrans connection
Monterey Coast Parks	M-1	14	X	X	X	X	
Mount Tamalpais State Park	J-1	4		X	X		One round trip per day – weekdays. Eleven round trips per day – weekends.
New Brighton State Beach	L-2	13		X		X	
Redwood National Park	A-3	● 6		X	X		
Richardson Grove State Park	E-2	●	X	X		X	
Samuel P. Taylor State Park	I-1	4		X	X		One round trip per day – weekdays. Two round trips per day – weekends and holidays.
San Clemente State Beach	V-5	● 7 (rail)		X		X	
Sequoia National Park	P-6	5	X	X	X	X	
Sonoma State Historic Park	I-2	●					
Sugar Pine Point State Park	J-6	●	X	X		X	Summer only
Tahoe State Recreation Area	I-7	● 33 8		X	X	X	Summer only
Van Damme State Park	F-1	●		X	X	X	One – Round Trip per day
Yosemite National Park	L-6	19	X	X	X	X	

*See carrier index on map front to identify the carrier.

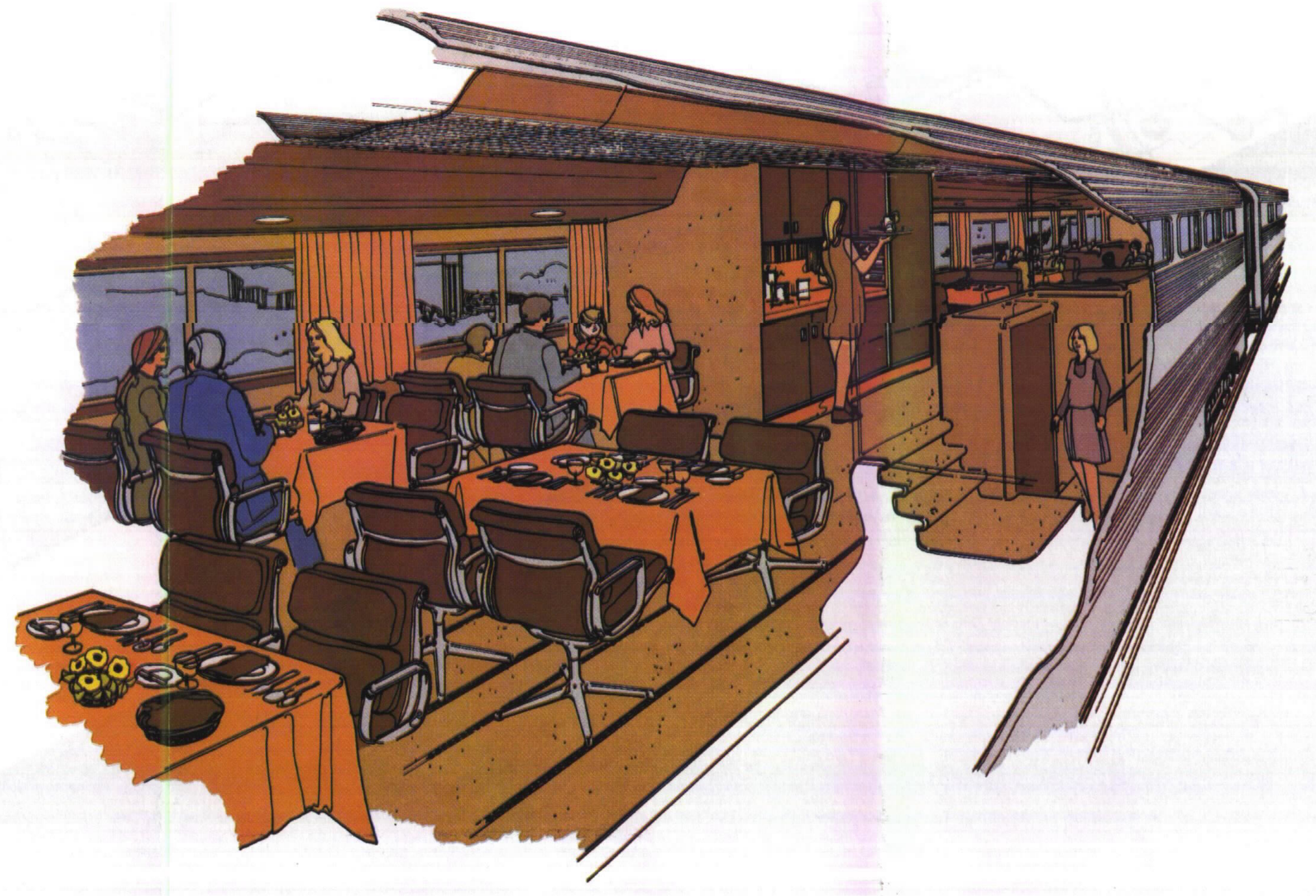
Reservations are recommended for summer and holiday overnight visits.

For more information contact:

State Park System
Department of Parks & Recreation
P.O. Box 2390
Sacramento, CA 95811
Tel. (916) 445-6477

National Parks & Forests
National Park Service
450 Golden Gate Avenue
San Francisco, CA 94102
Tel. (415) 556-4122

U. S. Forest Service
630 Sansome Street
San Francisco, CA 94111
Tel. (415) 556-0122



TOP LEVEL DINING -- Passengers dine high above the rails, isolated from noise and vibration, in this drawing of a food service area in one of a series of new Amtrak "bi-level" cars now on order. Passengers will ride on both levels. Mechanical equipment and most storage is below.

PASSENGER RAIL LISTING

AMTRAK
NATIONAL RAILROAD PASSENGER CORPORATION
400 North Capitol N.W.
Washington, D. C. 20001
(800) 648-3850
(213) 624-0171 (In Los Angeles Area only)

SOUTHERN PACIFIC COMMUTE SERVICE
700 – 4th Street
San Francisco, CA 94107
(415) 495-4546
Serving San Francisco and the Peninsula – only

MENDOCINO COAST RAILWAY – "THE SKUNK TRAIN"
P.O. Box 907
Fort Bragg, CA 95437
(707) 964-6371
Serving Willits, North Spur, & Fort Bragg – only

Amtrak Provides Bus Service Between the Following Cities:
Bakersfield and Barstow
Bakersfield and Los Angeles
Davis and Sacramento
Los Angeles and Orange
Monterey and Salinas
Sacramento and Stockton
San Diego and Tijuana
San Francisco and Oakland

For information regarding the Amtrak Bus Connecting Service, call Amtrak's toll free number 800-648-3850.

RENTAL CAR LISTING

- Agency Rent-A-Car 800-321-1972
- Airways Rent-A-Car Systems 800-648-5656
- Ajax Rent-A-Car 800-262-1776
- American International Rent-A-Car 800-527-6346
- Avis Rent-A-Car Domestic – 800-331-1212 International – 800-331-2112
- Budget Rent-A-Car 800-228-9650
- Dollar Rent-A-Car Systems 800-262-1520
- Fairway Rent-A-Car 800-634-3476
- Hertz Rent-A-Car 800-654-3131
- Holiday Rent-A-Car 800-237-2804
- Hotel Rent-A-Car System 800-421-1003
- National Car Rental System 800-328-4567
- Payless Car Rental 800-541-1566
- Rent Econo Car 800-228-1000
- Sears Rent-A-Car 800-228-2800
- Thrifty Rent-A-Car 800-331-4200

OPERATION Ski-lift

For information on ridesharing, bus or train service to the Tahoe ski area call:

Sacramento	(916) 323-SNOW
San Francisco	(415) 861-POOL
San Jose	(408) 996-POOL

For information on ridesharing, bus or train service to the Mammoth Mountain ski area call:

Los Angeles County	(213) 380-RIDE
Orange County	(714) 834-RIDE
San Bernardino/Riverside County	(714) 825-RIDE
San Diego County	(714) 237-POOL
Ventura County	(805) 647-POOL

CALIFORNIA STATE FAIR
CAL EXPO/SACRAMENTO

Note: Many carriers provide service for handicapped. Consult the carrier for more information.

ROUTES AND SCHEDULES ARE SUBJECT TO CHANGE.

FOR INFORMATION ABOUT PACKAGE TOURS CONSULT YOUR TRAVEL AGENCY

CITY INDEX

BUS LISTING

GREYHOUND LINES, INC. (SOUTHERN CALIFORNIA)
208 East 6th Street
Los Angeles, CA 90014
(213) 629-8501

GREYHOUND LINES, INC. (NORTHERN CALIFORNIA)
60 – 7th Street
San Francisco, CA 94103
(415) 495-1327

KERNVILLE STAGE & FREIGHT LINES
3307 Gulf Street
Bakersfield, CA 93306
(805) 323-2996

LAS VEGAS – TONOPAH – RENO STAGE LINE, INC.
P.O. Box 1600
Las Vegas, NV 89101
(702) 384-1230

THE MENDOCINO STAGE LINE
P.O. Box 1177
Mendocino, CA 94560
(707) 964-0167

CITY OF ADELANTO
P.O. Box 10
Adelanto, CA 92310
(714) 246-8606

CITY OF ARCADIA DIAL-A-RIDE
240 West Huntington Drive
Arcadia, CA 91006
(213) 445-2211

CITY OF ATASCADERO DIAL-A-RIDE
5905 East Mall
Atascadero, CA 93422
(805) 466-RIDE

ARCATA & MAD RIVER TRANSIT SYSTEM
736 "F" Street
Arcata, CA 95603
(707) 822-5951

CITY OF AUBURN
1103 High Street
Auburn, CA 95603
(916) 885-5661

CITY OF BANNING
P.O. Box 998
Banning, CA 92220
(714) 849-4511

CITY OF BARSTOW DIAL-A-RIDE
220 East Mountain View Street
Barstow, CA 92311
(714) 256-3531

CITY OF BEAUMONT TRANSIT
P.O. Box Drawer 158
Beaumont, CA 92223
(714) 845-1171

BENECIA-VALLEJO STAGELINES, INC.
101 East H Street
Benecia, CA 94510
(707) 745-3211

CITY OF CAMARILLO
P.O. Box 248
Camarillo, CA 93010
(805) 482-8921

CITY OF CERES DIAL-A-RIDE
2720 Second Street
Ceres, CA 95307
(209) 522-3225

CITY OF CHULA VISTA
276 Fourth Avenue
Chula Vista, CA 92010
(714) 575-5111

CITY OF CLAREMONT DIAL-A-RIDE
207 Harvard Avenue
Claremont, CA 91711
(714) 624-4531

COALINGA TRANSIT SYSTEM
6th & Elm Streets
Coalinga, CA 93210
(209) 935-1535

CITY OF COMMERCE BUS LINES
2535 Commerce Way
Commerce, CA 90040
(213) 722-4807

CITY OF COMPTON DIAL-A-RIDE
205 South Willowbrook Avenue
Compton, CA 90220
(213) 639-6176

TRAILWAYS, INC. (SOUTHERN CALIFORNIA)
1501 South Central Avenue
Los Angeles, CA 90021
(213) 742-1200

TRAILWAYS, INC. (NORTHERN CALIFORNIA)
1129 "I" Street
Sacramento, CA 95814
(916) 443-2044

MEXICOACH, INC.
1050 Kettner Boulevard
San Diego, CA 92101
(714) 232-5049

MT. LASSEN MOTOR TRANSIT, INC.
P.O. Box 2931
Red Bluff, CA 96080
(916) 527-5456

ORANGE BELT STAGES
P.O. Box 949
Visalia, CA 93277
(805) 327-4878

CITY OF CONCORD TRANSIT
c/o A/C Transit
508 16th Street
Oakland, CA 94612
(415) 653-3535

CORONA DIAL-A-RIDE
P.O. Box 940
Corona, CA 91720
(714) 736-2375

CITY OF CUDAHY
5220 Santa Ana Street
Cudahy, CA 90201
(213) 773-5143

CULVER CITY MUNICIPAL BUS LINES
P.O. Box 507
Culver City, CA 90230
(213) 837-5211

CITY OF DAVIS DIAL-A-RIDE
226 "F" Street
Davis, CA 95616
(916) 758-4020

CITY OF DELANO DIAL-A-RIDE
P.O. Box 939
Delano, CA 93216
(805) 725-2266

DIXON COMMUNITY ACTION COUNCIL
P.O. Box 852
Dixon, CA 95620
(916) 678-5596

CITY OF EL SEGUNDO DIAL-A-RIDE
Department of Parks & Recreation
401 Sheldon St.
El Segundo, CA 90245
(213) 322-1211

ESCALON PUBLIC TRANSPORTATION SERVICE
P.O. Box 248
Escalon, CA 95320
(209) 838-3266

CITY OF EUREKA
531 "K" Street
Eureka, CA 95501
(707) 443-8935

CITY OF FAIRFIELD DIAL-A-RIDE
Civic Center
Fairfield, CA 94533
(707) 425-3749

CITY OF FILLMORE
P.O. Box 487
Fillmore, CA 93015
(805) 524-3701

FOLSOM STAGE LINES
50 Natoma Street
Folsom, CA 95630
(916) 985-3661

FRESNO TRANSIT
2050 E. Street
Fresno, CA 98706
(209) 488-1122 or 1123

FULLERTON DIAL-A-RIDE
P.O. Box 3005
Garden Grove, CA 92642
(714) 636-RIDE

GARDENA MUNICIPAL BUS LINES
15350 South Van Ness Avenue
Gardena, CA 90249
(213) 324-1304

AMADOR STAGE LINES, INC.
P.O. Box 15707
Sacramento, CA 95813
(916) 444-7880

CALAVERAS TRANSIT CO.
P.O. Box 13
Vallecito, CA 95251
(209) 736-2743

PEERLESS STAGES, INC.
2040 Castro Street
Oakland, CA 94612
(415) 444-2900

REDWOOD EMPIRE LINES
P.O. Box 3790
Eureka, CA 95501
(707) 443-9923

SIERRA HIGHLAND BUS CO., INC.
2015 East Hammond
Fresno, CA 93703
(209) 445-1538

CITY OF HERMOSA BEACH
1315 Valley Drive
Hermosa Beach, CA 90254
(213) 376-6984

CITY OF HEALDSBURG
126 Matheson Street
Healdsburg, CA 95448
(707) 433-4466

HEMET-SAN JACINTO DIAL-A-RIDE
1211 West Acacia
Hemet, CA 92343
(714) 652-6871

HOLLISTER SAN TRAN SERVICE
375 Fifth Street
Hollister, CA 95023
(408) 637-1611

HUMPHREY-GO-BART
1952 Oxford Street
Berkeley, CA 94720
(415) 642-5149

LAGUNA BEACH MUNICIPAL BUS LINES
505 Forest Avenue
Laguna Beach, CA 92651
(714) 497-3311

LA HABRA-BREA DIAL-A-RIDE
P.O. Box 3005
Garden Grove, CA 92642
(714) 636-RIDE

CITY OF LA MESA
P.O. Box 937
La Mesa, CA 92041
(714) 463-6611 – Ext. 21

CITY OF LA MIRADA
13700 La Mirada Boulevard
La Mirada, CA 90638
(714) 523-7272

CITY OF LIVERMORE RIDEO
2250 First Street
Livermore, CA 94550
(415) 447-2100

LOMPOC TRANSIT DIAL-A-RIDE
119 West Walnut Avenue
Lompoc, CA 93438
(805) 736-4722

MARGUERITE SHUTTLE SERVICE
330 Bonair Siding
Stanford, CA 94304
(415) 497-4375

CITY OF MERCED TRANSIT SYSTEM DIAL-A-RIDE
75 West Avenue
Merced, CA 95340
(209) 723-4237

MODESTO MOTOR BUS SERVICE
P.O. Box 642
Modesto, CA 95353
(209) 521-1274

CITY OF MONROVIA DIAL-A-RIDE
415 South Ivy Avenue
Monrovia, CA 91016
(213) 359-3231

MONTEBELLO MUNICIPAL BUS LINES
311 South Greenwood Avenue
Montebello, CA 90640
(213) 721-3588

DESERT STAGE LINES
P.O. Box 415
Twentynine Palms, CA 92227
(714) 367-3581

FOSTER'S TRANSPORTATION SERVICE
301 Fourth Street
Taft, CA 93268
(805) 765-6141

STORER TRANSPORTATION SERVICE, INC.
3519 McDonald Avenue
Modesto, CA 95351
(209) 521-8250

SUN VALLEY BUS LINE
600 East Jefferson
Phoenix, AZ 85004
(602) 252-6804

TRAVELLER'S TRANSIT
P.O. Box 2036
San Rafael, CA 94902
(415) 457-7080

CITY OF MONTEREY PARK DIAL-A-RIDE
400 West Emerson (Langley Center)
Monterey Park, CA 91754
(213) 523-1211 – Ext. 88

MORENO VALLEY DIAL-A-RIDE
1825 Third Street
Riverside, CA
(714) 682-1234

CITY OF MORRO BAY DIAL-A-RIDE
685 Harbor Street
Morro Bay, CA 93442
(815) 772-2744

NAPA CITY BUS
P.O. Box 660
Napa, CA 94558
(707) 255-7631

NORCO DIAL-A-RIDE
1825 Third Street
Riverside, CA 92507
(714) 682-1234

NORWALK TRANSIT SYSTEM
12700 Norwalk Boulevard
Norwalk, CA 90650
(213) 863-7077

ORANGE-VILLA PARK DIAL-A-RIDE
P.O. Box 3005
Garden Grove, CA 92642
(714) 636-RIDE

PERRIS DIAL-A-RIDE
101 North "D" Street
Perris, CA 92370
(714) 657-3280

PETALUMA MUNICIPAL TRANSIT
Post & English Streets
Petaluma, CA 94952
(707) 762-2783

CITY OF RIO VISTA
P.O. Box 745
Rio Vista, CA 94571
(707) 374-5462 or 5706

RUBIDOUX DIAL-A-RIDE
1825 Third Street
Riverside, CA 92507
(714) 682-1234

SALINAS TRANSIT SYSTEM
200 Lincoln Avenue
Salinas, CA 93901
(408) 758-7331

SAN DIEGO TRANSIT CORPORATION
P.O. Box 2511
San Diego, CA 92112
(714) 233-7BUS

SAN DIEGO DIAL-A-RIDE
"B" Street
San Diego, CA 92112
(714) 232-6871

SAN FRANCISCO MUNICIPAL RAILWAY
949 Presidio Avenue
San Francisco, CA 94115
(415) 673-MUNI

CITY OF SAN JOSE PARK & RIDE
801 North First
San Jose, CA 95110
(408) 277-5161

GOVERNMENT SERVICES, INC.
Sequoia & Kings Canyon Hospitality Service
Sequoia National Park, CA 93262
(209) 565-3381

INTER MOUNTAIN STAGE COMPANY
P.O. Box 333
Canby, CA 96015
(916) 233-4631

YOSEMITE PARK & CURRY COMPANY
P.O. Box 578
Yosemite National Park, CA 95389
(209) 372-4861

MISSION STREET JITNEYS
109 Steuart Street
San Francisco, CA 94105
(415) 362-9726

MOUNTAIN AREA TRANSIT CO.
P.O. Box 3074
Big Bear Lake, CA 92315
(714) 866-4444

VACA VALLEY BUS LINES
P.O. Box 818
Fairfield, CA 94533
(707) 437–5456

CITY OF SAN LUIS OBISPO
P.O. Box 321
San Luis Obispo, CA 93406
(815) 544-2500 or 541-1000 – Ext. 51

CITY OF SANTA FE SPRINGS
P.O. Box 2120
Santa Fe Springs, CA 90670
(213) 868-0511

SANTA MONICA MUNICIPAL BUS LINES
1620 – 6th Street
Santa Monica, CA 90401
(213) 451-5445

SANTA ROSA MUNICIPAL TRANSIT
P.O. Box 1678
Santa Rosa, CA 95402
(707) 528-5306

SEBASTOPOL TRANSIT
7120 Bodega Avenue
Sebastopol, CA 94572
(707) 823-7863

SIMI VALLEY TRANSIT
3200 Cochran Street
Simi Valley, CA 93065
(805) 522-1333

CITY OF SOUTH GATE DIAL-A-RIDE
8650 California Avenue
South Gate, CA 90280
(213) 262-3497

CITY OF SOUTH LAKE TAHOE
P.O. Box 1210
South Lake Tahoe, CA 95705
(916) 541-2900

CITY OF THOUSAND OAKS BUS SERVICE
401 West Hillcrest Drive
Thousand Oaks, CA 91360
(805) 497-8611 – Ext. 208

TORRANCE TRANSIT SYSTEM
20466 Madrona Avenue
Torrance, CA 90503
(213) 328-7402

CITY OF TRACY DIAL-A-RIDE
P.O. Box 1029
Tracy, CA 95376
(209) 835-2772

CITY OF TURLOCK DIAL-A-RIDE
1130 North Front
Turlock, CA 95380
(209) 632-8822

CITY OF UNION CITY
1154 Whipple Road
Union City, CA 94587
(415) 489-2780

CITY OF VACAVILLE
650 Merchant Street
Vacaville, CA 95688
(707) 446-4888

VALLEJO TRANSIT LINES
P.O. Box 831
Vallejo, CA 94590
(707) 644-8963

CITY OF WALNUT CREEK
1445 Civic Drive
Walnut Creek, CA 94596
(415) 935-3300

AMADOR RAPID TRANSIT
P.O. Box 1092
Jackson, CA 95642
(209) 223-0194

ANTELOPE VALLEY BUS
P.O. Box 4089 Terminal Annex
Los Angeles, CA 90051
(213) 226-8233

COLUSA COUNTY TRANSIT SYSTEM
546 "J" Street
Colusa, CA 95932
(916) 458–7509

CUESTA COLLEGE SHUTTLE
San Luis Obispo City Hall
990 Palm
San Luis Obispo, CA 93401
(805) 554-2500

TRI DELTA TRANSIT AUTHORITY
2400 Sycamore
Antioch, CA 94509
(415) 493-1300

DEL NORTE CITY & PUBLIC BUS
8th & H Streets
Crescent City, CA 95531
(707) 464-3069

DESERT HOT SPRINGS TEL-A-RIDE
P.O. Box 1786
Palm Springs, CA 92262
(714) 323-8157

GOLD COUNTRY STAGE
Court House
Nevada City, CA 95959
(916) 265-2461 – Ext. 252

HUB AREA TRANSIT AUTHORITY
1612 Pool Boulevard
Yuba City, CA 95991
(916) 671-0611

HUMBOLDT TRANSIT AUTHORITY
1106 Second Street
Eureka, CA 95501
(707) 443-0826

LAKE ELSINORE TRANSIT SYSTEM
130 South Main Street
Lake Elsinore, CA 92330
(714) 674-5387

LONG BEACH PUBLIC TRANSPORTATION CO.
P.O. Box 731
Long Beach, CA 90801
(213) 591-2301

MENDOCINO TRANSIT AUTHORITY
2098 Millcreek Road
Ukiah, CA 95482
(707) 468-4268

MONTEREY PENINSULA TRANSIT
One Ryan Ranch Road
Monterey, CA 93940
(408) 899-2557

MORRO BAY – CAMBRIA BUS SERVICE
685 Harbor Street
Morro Bay, CA 93442
(805) 772-2744

COUNTY OF NAPA DIAL-A-RIDE
1127 First Street
Napa, CA 94558
(707) 224-2351

NORTH COASTAL TRANSIT
990 Palm
San Luis Obispo, CA 93401
(805) 544-2500

OMNITRANS
1700 West 5th
San Bernardino, CA 92411
(714) 383-5283

ORANGE COVE-PARLIER TRANSIT
55 Sixth Street
Orange Cove, CA 93646
(209) 626-4488

PALM DESERT TEL-A-RIDE
P.O. Box 1786
Palm Springs, CA 92262
(714) 320-3044

PALO VERDE VALLEY TRANSIT AGENCY
P.O. Box 1090
Riverside, CA 92504
(714) 922-5763

PLACER COUNTY MINI BUS
11444 "B" Avenue
Auburn, CA 95603
(916) 823-4389

RIVERSIDE TRANSIT AGENCY, COUNTY OF RIVERSIDE
1825 Third Street
Riverside, CA 92507
(714) 682-1234

ROSEVILLE AREA DIAL-A-RIDE
P.O. Box 636
Roseville, CA 95678
(916) 782-9494

SAN DIEGO COUNTY NORTHEAST RURAL BUS SYSTEM, INC.
P.O. Box 475
Julian, CA 92036
(714) 765-0145

SAN DIEGO COUNTY SOUTHEAST RURAL BUS SYSTEM, INC.
P.O. Box 206
Compo, CA 92006
(714) 478-5875

SISKIYOU COUNTY AREA TRANSIT
305 Butte Street
Yreka, CA 96097
(916) 842–3531 (Extension 215)

SANTA MARIA – ORCUTT – GUADALUPE
P.O. Box 104
Santa Maria, CA 93456
(805) 922-8476

SONOMA COUNTY AREA TRANSIT
Room 117-A, Administration Building
2555 Mendocino Avenue
Santa Rosa, CA 95401
(707) 527-2231

SOUTH COAST AREA TRANSIT
230 South Hayes
Oxnard, CA 93030
(805) 643-6168

SOUTH COUNTY AREA TRANSIT
P.O. Box 550
Arroyo Grande, CA 93420
(805) 489-5400

SUNLINE TRANSIT AGENCY
P.O. Box 1786
Palm Springs, CA 92262
(714) 323-8157

TAHOE AREA REGIONAL TRANSIT
Drawer CC
Tahoe City, CA 95730
(916) 583-1658

THOUSAND OAKS-CAMARILLO-VENTURA BUS SERVICE
401 West Hillcrest Drive
Thousand Oaks, CA 91360
(805) 497-8611 – Ext. 208

COUNTY OF TUOLUMNE
Room 101, Court House
Sonora, CA 95370
(209) 532-5010

TRI CITY BUS, COUNTY OF NAPA
1480 Main Street
St. Helena, CA 94574
(707) 963–2741

UNITRANS – UNIVERSITY TRANSPORT SYSTEM,
372 Memorial Union
Davis, CA 95616
(916) 452-2877

COUNTY OF VENTURA ROAD DEPARTMENT
800 South Victoria
Ventura, CA 93009
(805) 654-2065

WEST CONTRA COSTA COUNTY TRANSIT AUTHORITY
651 Pine Street
Martinez, CA 94553
(415) 758-2266

YOLO COUNTY MINI TRAN
292 West Beamer Street
Woodland, CA 95695
(916) 666-8428

WESTRANZ TRANSIT SYSTEM
P.O. Box 756
San Joaquin, CA 93660
(209) 698–7817

ALAMEDA-CONTRA COSTA TRANSIT DISTRICT
508 – 16th Street
Oakland, CA 94612
(415) 653-3535

BAY AREA RAPID TRANSIT DISTRICT
800 Madison Street
Oakland, CA 94607
(915) 415-BART

GOLDEN EMPIRE TRANSIT DISTRICT
3101 – 16th Street
Bakersfield, CA 93301
(805) 324-9874

GOLDEN GATE BRIDGE, HIGHWAY AND TRANSPORTATION DISTRICT
P.O. Box 9000, Presidio Station
San Francisco, CA 94129
(415) 332-6600

MARIN COUNTY TRANSIT DISTRICT
Civic Center
San Rafael, CA 94903
(415) 479-1100

NORTH SAN DIEGO COUNTY TRANSIT DISTRICT
303 Via Del Norte
Oceanside, CA 92054
(714) 758-9000

ORANGE COUNTY TRANSIT DISTRICT
P.O. Box 3005
Garden Grove, CA 92642
(714) 636-RIDE

SACRAMENTO REGIONAL TRANSIT DISTRICT
P.O. Box 2110
Sacramento, CA 95810
(916) 444-2877

SAN DIEGO METROPOLITAN TRANSIT DEVELOPMENT BOARD
620 "C" Street – Suite 400
San Diego, CA 92101
(714) 231-1466

SAN MATEO COUNTY TRANSIT DISTRICT
400 South El Camino Real
San Mateo, CA 94402
(415) 761-7000

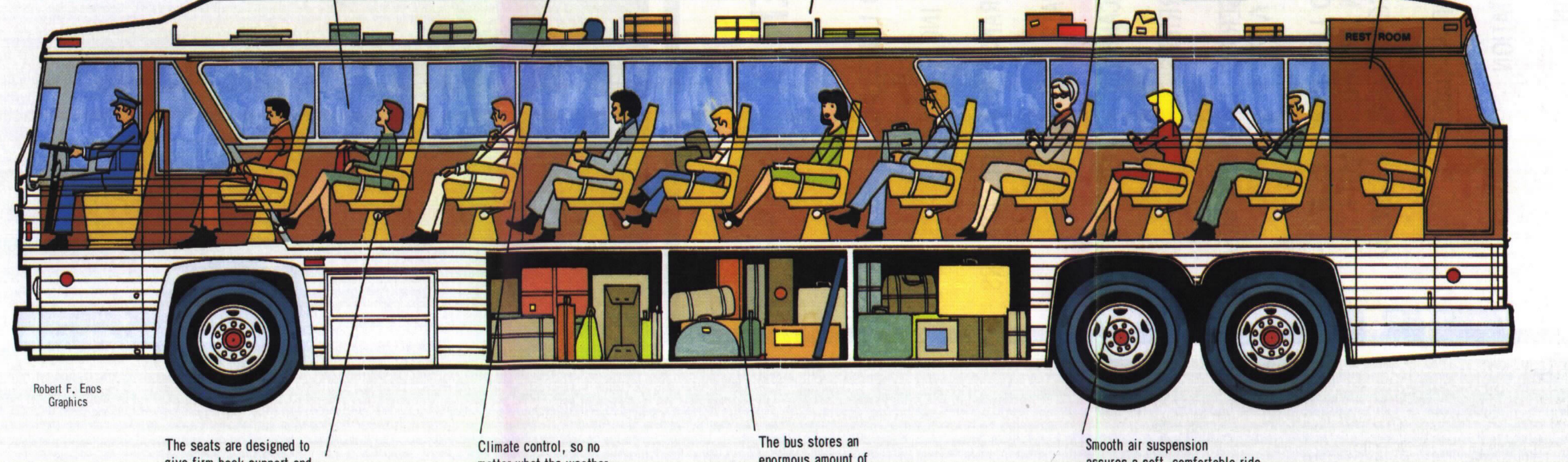
SANTA BARBARA METROPOLITAN TRANSIT DISTRICT
P.O. Box 550
Santa Barbara, CA 93120
(805) 962-7682

SANTA CLARA COUNTY TRANSIT DISTRICT
1555 Berger Drive
San Jose, CA 95112
(408) 287-4210

SANTA CRUZ METROPOLITAN TRANSIT DISTRICT
1025 Center Street
Santa Cruz, CA 95060
(408) 462-6080

SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT
425 South Main Street
Los Angeles, CA 90013
(213) 626-4455

STOCKTON METROPOLITAN TRANSIT DISTRICT
145 North Grant Street
Stockton, CA 95205
(209) 943-1111

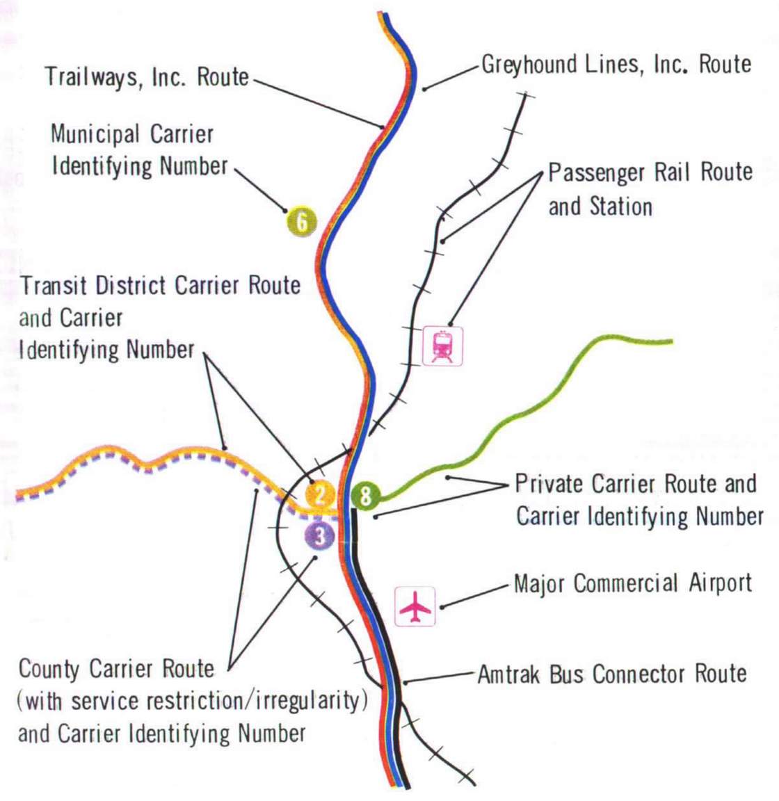


HOW TO USE THE MAP

The California State Transportation Map is an easy-to-use document that illustrates the availability of bus, passenger rail and air travel services throughout the State.

A system of colored lines and readily identifiable symbols are presented to help you to use the map:

- Colored lines indicate bus routes. The color of the line tells you the type of carrier. The numbered disc found along each route line identifies the specific carrier and is the same color as the bus route. You can check the listings on this sheet for addresses and phone numbers of all the carriers.
- A dashed line, regardless of color, tells you that some form of service restriction or schedule irregularity exists along this route. To learn about the specifics you should consult the carrier.
- Sometimes more than one carrier may serve the same route. When planning a trip, it is advisable to consult each carrier to learn of their schedules, fares and connecting services.
- When a carrier operates exclusively within a city limit, no route lines will be shown. The numbered discs will stand alone and will be located in proximity to the city name.
- The railroad track symbol found on the map traces the passenger rail network in the state. The locomotive symbol shows where you may board or disembark from the trains.
- Major commercial airports are shown by the aircraft symbol. A separate air route structure map is provided at the lower left corner of the larger map.



The California State Transportation map does not provide schedule or fare information. Schedules change often, and it is advisable to contact the carrier to learn of current detail information such as schedules, ticket prices, frequency of service and route changes.

Users noting errors or revisions to this map may forward comments to:

CALTRANS
Division of Mass Transportation
Sacramento, CA 95807
(916) 445–4616

FERRY LISTING

CARRIER	SERVICE
Balboa Island Ferry, 410 South Bay Front-Balboa Island, Newport Beach, CA 92662, (714) 673-1070	Balboa Island-Balboa; Passengers and vehicles
Catalina Cruises, 330 Golden Shores, Long Beach, CA 90802, (213) 832-4521	Los Angeles-Santa Catalina Island; Long Beach-Santa Catalina Island; Passengers
Catalina Passenger Service, 400 Main Street, Balboa, CA 92661, (714) 673-5245	Newport Beach-Santa Catalina Island; Passengers
Golden Gate Ferry Service, P.O. Box 3474, San Rafael, CA 94902, (415) 332-6600	San Francisco-Sausalito and Larkspur; Passengers
Harbor Carriers, Pier 41 N., San Francisco, CA 94113, (415) 546-2810	San Francisco, Berkeley, Tiburon; Sausalito, Angel Island & Alcatraz; Long Beach-Santa Catalina; San Francisco-Sacramento; Passengers
Island Packers Company, P.O. Box 993, Ventura, CA 93003, (805) 642-1393	Oxnard-Ventura-Channel Islands; Oxnard (summer only); Passengers
Jersey Island Ferry Service, Route 1, Box 286, Brentwood, CA 94513, (415) 684-9995	Jersey and Bradford Islands; Webb and Frank Tracts; Passengers-Vehicles-Livestock
Delta Steamship Lines Inc., One Market Plaza, San Francisco, CA 94106, (800) 652-1426	San Francisco-Los Angeles; Passengers
Skipper's 22nd Street Landing, 141 W. 22nd St., San Pedro, CA, (213) 832-8304	San Pedro-Santa Catalina, Santa Barbara Islands; Passengers
Tiburon-Angel Island Ferry, 21 Main Street, Tiburon, CA 94920, (415) 435-2131	Tiburon-Angel Island; Passengers

CALIFORNIA STATE TRANSPORTATION MAP

Edmund G. Brown Jr., *Governor*
State of California

Alan L. Stein, *Secretary*
Business and Transportation Agency

Adriana Gianturco, *Director*
Department of Transportation

Caltrans

1980