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**NJ TRANSIT**

**SOUTH JERSEY TRANSIT PLAN**

**DVRPC Supplemental Comments**

**June 1989**

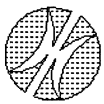
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*Created in 1965, the Delaware Valley Regional Planning Commission (DVRPC) is an interstate, intercounty and intercity agency which provides continuing, comprehensive and coordinated planning for the orderly growth and development of the Delaware Valley region. The region includes Bucks, Chester, Delaware, and Montgomery counties as well as the City of Philadelphia in Pennsylvania and Burlington, Camden, Gloucester, and Mercer counties in New Jersey. The Commission is an advisory agency which divides its planning and service functions among the Office of the Executive Director, the Office of Public Affairs, and four line Divisions: Transportation Planning, Regional Information Services Center, Strategic Planning, and Finance and Administration. DVRPC's mission for the 1980s is to emphasize technical assistance and services and to conduct high priority studies for member state and local governments, while determining and meeting the needs of the private sector.*



*The DVRPC logo is adapted from the official seal of the Commission and is designed as a stylized image of the Delaware Valley. The outer ring symbolizes the region as a whole while the diagonal bar signifies the Delaware River flowing through it. The two adjoining crescents represent the Commonwealth of Pennsylvania and the State of New Jersey. The logo combines these elements to depict the areas served by DVRPC.*

# DELAWARE VALLEY REGIONAL PLANNING COMMISSION

## Publication Abstract

<b>TITLE</b>	<b>Date Published:</b> June 1989
NJ TRANSIT SOUTH JERSEY TRANSIT PLAN	
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### Geographic Area Covered:

The nine counties of South Jersey, including Burlington, Camden, Gloucester and Mercer from within the DVRPC region and Atlantic, Cape May, Cumberland, Ocean and Salem from the area outside the DVRPC region.

### Key Words:

Transit, planning, ridership, NJ TRANSIT, South Jersey, transit system structure, fare policy, service standards

## ABSTRACT

*This report presents the comments of the Delaware Valley Regional Planning Commission staff on transit service in South Jersey. These reflections are based on the commission's continuing work in transportation planning, staff's knowledge of South Jersey, a review of the report by NJ TRANSIT on "TRANSIT IN SOUTH JERSEY: The Mobility Challenge, (May 1989)", and the many insights gained by staff through their involvement in the travel demand estimation tasks of that NJ TRANSIT study.*

*The specific purposes in presenting these comments are to further stimulate discussion of the issues affecting transit in South Jersey and to continue the exchange of ideas and solutions recently begun by NJ TRANSIT. The thrust of these comments is a challenge to all parties concerned with transportation and mobility in South Jersey to begin to formulate a strategic plan to guide the development of an expanded transit system for the region. Such a plan should be formed around a framework that addresses three areas: System Structure, Fare and Marketing Policy, and Service Standards Policy. The ideas presented are not intended to comprise a complete strategy nor do they carry the endorsement of either DVRPC or NJ TRANSIT. Rather, written comments, additions and modifications to the ideas expressed in these pages are openly solicited in the hope of creating a more complete framework for transit service development.*

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## I. INTRODUCTION

This report presents the comments of the Delaware Valley Regional Planning Commission (DVRPC) staff on transit service in South Jersey. These reflections are based on the commission's continuing work in transportation planning, staff's knowledge of South Jersey, a review of the report by NJ TRANSIT on "TRANSIT IN SOUTH JERSEY: The Mobility Challenge, (May 1989)", and the many insights gained by staff through their involvement in the travel demand estimation tasks of that NJ TRANSIT study.

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## II. BACKGROUND

In May 1989, NJ TRANSIT issued its report on "TRANSIT IN SOUTH JERSEY: The Mobility Challenge, A Draft for Discussion". The report summarized a comprehensive study of transit needs in southern New Jersey begun in the summer of 1987. In their report, NJ TRANSIT made a number of recommendations for improving transit service in South Jersey, phasing those actions over the near, intermediate and longer terms. The recommendations, the majority of which are for the near term, are summarized on Figure 1. Taken together, these recommendations imply a general satisfaction with the current system of bus routes but also a recognition of the potential need for an expanded rail system, building upon the soon to be operating ACRL service.

The NJ TRANSIT study began at a grassroots level when their staff began a series of interviews with numerous transit and planning professionals in southern New Jersey and with the region's elected officials. The formation of an Advisory Committee was to provide a forum where issues could be debated and mutual interests discussed. The Delaware Valley Regional Planning Commission, in its role as transportation planning coordinator for much of the study area, participated as an active member of the committee.

DVRPC also participated in the NJ TRANSIT South Jersey study as a technical consultant. DVRPC's technical role was to compile a database of population and employment information for all areas covered by the study, estimates of travel demand by commuters in 1995, identification of potential transit corridors, and an assessment of the feasibility of new transit services.

In May 1989, DVRPC issued a report summarizing its work in estimating the potential transit market in 1995 for proposed NJ TRANSIT services. The report, "NJ TRANSIT SOUTH JERSEY PLAN - Travel Demand and Transit Potential" was forwarded to NJ TRANSIT for distribution to the study Advisory Committee and was also presented in June 1989, to the DVRPC Transportation Planning Technical Advisory Committee.

## **Figure 1 NJ TRANSIT Recommendations for South Jersey**

### Near Term Recommendations:

#### Bus Services

- Reschedule bus routes to improve transfers in Atlantic City between local and long-distance routes.
- Adjust bus Route 104 to feed the Atlantic City Rail Line (ACRL) at Hammonton, Egg Harbor and Absecon stations.
- Accept rail tickets on bus Route 104 to encourage transit use to Atlantic City.
- Establish a Gloucester County bus route to the Avandale Park & Ride for transfer to the Route 101 bus to Atlantic City.
- Institute southern Cumberland County feeder service to the successful bus Route 103 to Atlantic City.
- Work with local employers to establish "job access" bus services from Camden to Pennsauken's Airport Industrial Park and to NJ Route 73 at Marlton Circle in the Mt. Laurel area.
- Explore preferential treatment for buses at the Ben Franklin Bridge toll plaza for all 19 bus routes into Philadelphia.
- Expand Salem County to Delaware service to provide midday shopping opportunities.

#### Rail Services

- Perform work to substantiate whether a federally supported environmental impact study should be undertaken for a possible rail line or busway between Philadelphia and either Burlington or Gloucester County.
- Purchase Woodmansie rail right-of-way linking Ocean, Burlington and Atlantic counties to preserve the possibility of future passenger service to Atlantic City.
- Monitor disposition of all other rights-of-way with future rail passenger service potential.

### Intermediate Term Recommendations:

- Implement express bus service from Cherry Hill to Trenton when the Trenton area interstate highway system is complete.
- If warranted, proceed with detailed planning and environmental impact study of a prospective rail/busway project in either the Burlington or Gloucester County corridors, in cooperation with DRPA.

#### Once ACRL service begins:

- Determine if selective double tracking is warranted and seek funding.
- Evaluate the need for a Frankford Junction connection to link the ACRL with the North Jersey rail network, in cooperation with AMTRAK and Conrail.
- Evaluate the need for a Burlington County bus feeder to the ACRL stations.

### Long term Recommendations:

- If warranted, proceed with the implementation of a prospective rail line or busway in either the Burlington or Gloucester County corridor, in cooperation with DRPA.
- If warranted, proceed with the implementation of the Frankford Junction connection, in cooperation with AMTRAK and Conrail.

### III. STRATEGIC PLAN CONCEPT

South Jersey, the nine southern counties of the state, is an area of moderate to low density development that in the past had been mostly concentrated around the three major cities of Camden, Trenton and Atlantic City. Commuting patterns were strongly oriented toward these cities and toward the Philadelphia central business district adjacent to Camden.

During the 60's and 70's, residential development spread into once rural farming areas, creating sprawling suburbs. Then in the 80's, South Jersey began to experience a migration of jobs from the cities to suburban office and industrial parks. The urban core still remains a strong influence, but now commuting patterns are much more diffused.

Traditional transit service, as South Jersey has known it, has been carrying a decreasing proportion of commuter trips. This is the result of both the change in commuting patterns and the public's increasing expectations of what quality transit service should be. Despite the decreasing ridership, the public still expects a quality transit system in South Jersey.

The NJ TRANSIT study has begun to draw statewide attention to the role of transit in South Jersey. The recommendations of the study propose changes that can make transit more responsive to the needs of the region. However, the study did not include an overall plan to guide the restructuring of transit service to meet changing needs of the residents of South Jersey. Such a plan should be formed around a framework provided in a strategy that addresses three areas: System Structure, Fare and Marketing Policy, and Service Standards Policy. However, for this strategy to be effective, it must focus on the specific needs and character of South Jersey while continuing to take advantage of the economies of scale that accrue from being part of a statewide agency.

The next three chapters present a mixture of issues and ideas for new directions for transit development in South Jersey. Each chapter focuses on one of the areas of the strategic plan discussed above. As a preface to the material in those chapters, the following viewpoints are expressed about transit in South Jersey. Again, it must be emphasized that these comments are those of staff and are intended to stimulate further discussion of the issues.

#### Viewpoints

1. Traditional bus service is meeting the market needs of fewer and fewer commuters as employment patterns change, auto availability increases, and individuals expect higher standards and life-styles.
2. Commuters are willing to pay for decent service, including a premium price for premium service.
3. Society is failing to recognize the advantages of encouraging the use and development of multi-passenger modes of travel and instead has chosen to encourage private auto usage through low density land development policies.
4. Transit works best where there are high densities at both the home and work end of a commuter trip. Transit is least effective when the job density is low.
5. There still is, and will continue to be, a strong commuter relationship between South Jersey and the Philadelphia Central Business District (CBD), where the job density is more than 10 times that of any other location in or around South Jersey.
6. Camden, Trenton and Atlantic City are major employment centers where transit does work and where additional efforts can produce more ridership.

7. The primary route structure of a transit system must be straightforward and easily identifiable by the general public. Multiple branching and limited frequency special service work against building ridership by making the service less visible to the potential market, though in the short run these features may satisfy the needs of a few.
8. Defining and scheduling corridors for trunkline service and greater use of zoned or express service can avoid redundant and poorly utilized service, increase ridership by offering a faster trip, reduce vehicle requirements and driver hours.
9. There are a number of other regional sub-centers that have become the focus of significant travel activity. Transit service to these areas could relieve congestion and provide added mobility (as part of a social policy).
10. Traditional transit cannot provide cost-effective, reasonably subsidized service to low density travel markets.
11. In the many communities where there exists the need to provide added mobility via a publicly supported transportation system, these needs are best determined by the local interests.
12. Local transit service, when determined by local interests, can be supported in part with locally derived funds (public and/or private), with possible support from a statewide service provider in areas of equipment purchasing/leasing, training, scheduling assistance, and vehicle maintenance.
13. There are potential economies of scale that can be realized through a statewide transit authority.
14. State transit policy does not take into account the differences between the densely developed North Jersey - New York area and the newly developing South Jersey - Philadelphia area in fare policy, wage and salary scales, and service standards.



#### IV. SYSTEM STRUCTURE PROPOSAL

The changing character of South Jersey, from the simple commuter sheds of Philadelphia, Camden and Trenton to a complex economic region in its own right, mandates that the basic route structure of the transit system be redefined.

This section proposes a new system structure composed of three types of routes, each serving a particular market segment yet complementing each other so as to function as a system of routes. These route types are: Premium Commuter Routes, Metropolitan Area Routes, Community Service Routes. It is not the intention of this report to define a complete system of routes. Rather, the purpose of describing these three service types is to indicate a possible approach to route design which targets specific markets with appropriate types of service.

These three route types are in large part an outgrowth of the analysis of travel patterns discussed in the DVRPC report, "NJ TRANSIT SOUTH JERSEY TRANSIT PLAN, Travel Demand and Transit Potential (May 1989). For purposes of clarity, the generalized description of each route type is repeated here:

##### Premium Commuter Routes

Point-to-point line haul routes operating over exclusive rights-of-way or on major arterial highways providing high speed, limited stop service at a premium fare. These routes could be either rail (PATCO-type rapid transit, light rail or commuter rail) or express bus (in busway, designated lanes or mixed traffic). Service, operated from the suburban regional centers and park & ride facilities to the major cities, would be peak period intensive and targeted to the longer distance commuter.

##### Metropolitan Service Routes

Corridor line haul routes operating along major radial highways or a well defined circumferential highway providing frequent, highly visible, continuous service. Similar to portions of some existing NJ TRANSIT routes (ie, F,7,G, etc), these routes would operate between regional hubs, supplying mid-distance and local service limited to the route corridor. At the regional hubs, these routes would make connections with the point-to-point routes.

##### Community Service Routes

Local collector/distributor routes operating on minor arterial roads providing service between compact neighborhoods, isolated villages, activity centers, government centers, etc. These short routes also provide the connecting links to the point-to-point and corridor routes. These routes serve the great need for purely local transport and might best be designed, operated and partly subsidized by the localities they serve.

Each route type is outlined on the following pages in terms of the type of system, focus of service, interface to other routes, service (schedule and routings) and fare, and infrastructure and equipment requirements. The use of an outline format is in keeping with the intent of this paper: to stimulate discussion. It is hoped that readers will feel compelled to modify this outline in an iterative process of refinement.

## **Premium Commuter Routes**

### Type of System

Spinal Network of Rail and Express Bus Commuter Routes

Point-to-Point Service on Longer Distance Routes

### Focus of Service

Key Major Centers

Trenton

Atlantic City

Camden

Philadelphia Central Business District

### Interface to Other Services

Large Park & Ride Lots

Pulsed Feeder Bus Connections from Metro and Community Services

Inter-Connections to Air and Rail Terminals

### Service and Fares

Premium Service at Premium Fare

Express Routings with Limited Stops

Frequent Peak Period Service

Limited Off-Peak Service

Fares Reflective of Auto/Rail Competitive Market

High Quality Equipment Only

### Possible Infrastructure

Busway, Light, Commuter or PATCO-type Rail

Phila-Camden-Mt Laurel

Phila-Camden-Glassboro

North-South (42 Freeway) Busway

Ben Franklin (Bridge) Busway

Camden-Phila. Bus Tunnel (Mickel to Market)

Regional Park & Ride Lots at Strategic Locations

## Metropolitan Area Routes

### Type of System

Primary Network of Arterial Bus Routes

### Focus of Service

Major Centers and Regional Centers  
County Seats  
Regional Shopping Malls  
Significant Town Centers

Developed Radial and Major Circumferential Corridors

### Interface to Other Services

Pulsed Connections with Other Metropolitan Routes

Limited Interface with Premium Service at Centers and P&R Sites

Pulsed Feeder Connections from Community Service Routes

### Service and Fares

Frequent Continuous Service

Zone Based Fares

Through-Fares for Transfers to Premium Routes

### Possible Infrastructure

Transfer Hubs at Pulsed Feeder Locations  
Interchanges of the Barrier Island Causeways and the Parkway  
Regional Centers

Bus Shelters

## Community Service Routes

### Type of System

Local Connecting / Supporting Services

Joint Venture Between Local Governments, Employers, and NJ TRANSIT

### Focus of Service

Small Communities

Arterial & County Road Corridors

Industrial and Office Parks

### Interface to Other Services

Serve as Links between Premium & Metro Service and Local Communities

Activity Centers such as the Atlantic City Casinos

Casino Tour Buses Serving as Shuttles from Train/Bus Terminal to Casinos

Barrier Island Shuttles Intercepting Metro & Premium Services at Parkway Interchanges

### Service and Fares

Routes and Schedules Established by Local Service Coordinating (LSC) Agency (ie, city or county department, Transit Advisory Board, etc.)

Fares Set by LSC via Contract Arrangement with Service Provider

State Matching Grant Subsidy Provided through NJ TRANSIT Based on Non-State Subsidies and Performance

County, Local Government and Private Sector Subsidies Encouraged

Atlantic City Charter Buses under Contract with LSC using Magnetic Shuttle Signs on Buses

### Possible Infrastructure

Vehicles Could be Leased from NJ TRANSIT Permitting Standardization and Economies in Acquisition

Maintenance Facilities (and Personnel) Could be Shared with NJ TRANSIT and/or Local or County Government or Private Sector (Operators or Other Private Firms) in lieu of Subsidy

## V. FARE AND MARKETING POLICY PROPOSAL

Since taking over the public transit system in the state, NJ TRANSIT has made significant improvements to pricing policy. The introduction of larger fare zones, exact fare routes within cities, monthly passes, and other innovations have made the system more attractive to the riding public. Yet there are still more innovations that could be explored and certain inequities that need to be addressed.

### Innovative Price Marketing

The market area in which NJ TRANSIT operates is actually served by three major transit agencies: NJ TRANSIT, PATCO and SEPTA. With the growth of suburban employment in New Jersey, more and more trips are being taken from Philadelphia and the Pennsylvania suburbs to destinations in suburban New Jersey. If transit is to capture any of this market, it must become more flexible in the way services are delivered and priced.

Inter-operator fare agreements should be established to promote overall increases in ridership and, in particular, to attract new riders to the regional transit system from among the trans-Delaware commuters destined to suburban locations. These agreements could include one operator accepting the transfer ticket of another operator as payment of the base fare and only requiring the rider to pay only the incremental zone charges. This is currently the transfer policy for a multi-route trip on NJ TRANSIT, but does not apply to inter-operator transfers.

Joint fares once established should be aggressively marketed. Information on their use should be posted in stations, on buses, and included in fare tariffs and schedules of all relevant routes. Time of arrival or departure for connecting services should be shown on each operator's schedules.

In line with the concept of inter-operator fare agreements are the concepts of Transit Chek and stored-value ticketing. Transit Chek is a financial instrument offered by an employer as an employee benefit that carries the value of a tax-free cash discount on any prepaid transit fare (ie, monthly passes) offered by participating transit operators. Currently in use in New York and North Jersey, the operators of the Delaware Valley are currently working on establishing a similar program.

Stored-value ticketing refers to the use of electronically imprinted tickets that can be used on any route of a participating operator. The tickets are "marked" with the dollar amount supplied by the purchaser and are decremented for the value of each trip when taken. Therefore, a ticket purchased for \$25.00 would be good for any number of trips on routes of any participating carrier up to \$25.00 value on the ticket. The remaining value on a ticket can be increased by resubmitting the ticket to the vending machine and supplying additional cash. Implementing stored-value ticketing is a long-term proposal since the system is dependent upon specialized ticket reading equipment on each vehicle or gate area and ticket vending machines at stations and other locations. This type of equipment is currently in use on the METRORAIL system in Washington, D.C.

### Equity Issues

NJ TRANSIT, as a statewide transit provider, sets fares for all of its bus routes under one set of tariffs. This policy of unified fares yields certain administrative efficiencies which help to contain costs for the overall system. However, a single statewide fare policy does create a potentially inequitable situation for sections within the state.

### Regional Differences

Significant differences exist between the northern and southern portions of the state. Perhaps the most noticeable difference is the density of development. The population density in North Jersey is nearly 2.5 times higher than in South Jersey. However, density is not the only difference between the two sections of the state. North Jersey is primarily a part of the New York City economic market, while South Jersey is

more closely associated with Philadelphia. The New York metropolitan area is well known for its very higher cost of living. In fact, this is precisely what has made South Jersey attractive to commercial developers. Lower costs for land and labor are attracting many firms and employees to South Jersey. These cost differences are reflective of the differences in the relative financial status between South Jersey residents and their North Jersey counterparts.

Figure 2 presents the NJ Department of Labor estimates of per capita income and population for 1985 for each of the 21 counties of the state. The table has been arranged by North and South Jersey and also shows the average per capita income and population density for these sections and for the state. In addition to the difference in population density mentioned above, this table very clearly shows the tremendous differential in per capita incomes between North and South Jersey. In fact, the per capita income of North Jersey taken as a whole is 19% higher than the per capita income of South Jersey. Furthermore, all but two counties in North Jersey (Hudson and Passaic) have higher per capita incomes than the South Jersey average. All nine counties of South Jersey are below the state average.

The significant difference in income levels between North and South Jersey is reflected in the differences in the general cost of living between the two sections of the state. However, the statewide fare structure of NJ TRANSIT does not account for this difference. A five mile bus trip in Bergen County costs the same as a five mile bus trip in Cumberland County.

It might be argued that since labor costs are governed by a statewide contract and since labor costs constitute over 70% of the cost of operating bus service, fares should not show a differential between North and South. However, from the perspective of the commuter, whose wages are not governed by a statewide contract but rather are tied to the economic conditions of their respective regions, the statewide fare may be higher than it should be assumed the market can bear. To put another way, a \$1.00 fare in North Jersey may be more equitably priced at \$.84 in South Jersey. Charging that \$1.00 may well be driving a significant proportion of the market away from riding the service offered, or worse, may be gouging those who are transit captive.

In establishing the price for a product or service, determining how much the market is willing or able to pay is a critical factor. In the case of public transit service, the issue is far more complicated than pricing other consumer products. Transit is paid for by not only by its users but also by the general public, both because it enhances the well-being of the community at large and because it provides a social service for those unable to utilize private transportation. The portion the general public pays is the subsidy. The user portion is the fare.

In New Jersey, the subsidy is provided through statewide taxes and other revenues by the state legislature. If the objective is to redistribute state tax revenues equitably across the state, then one criteria for allocating the state subsidy would be the relative proportion of population within each section of the state. As shown in Figure 2, South Jersey would receive roughly 30% of the state support for transit by this method. Contrary to arguments that South Jersey receives an inordinate proportion of the state transit subsidy, NJ TRANSIT estimates that approximately 33% of the fiscal year 1990 operating deficit (which must be met by the subsidy) is attributable to South Jersey service. Therefore, the subsidy to South Jersey is not excessive.

Another consideration in establishing the price for service is the cost to the consumer of using a competitor's service. For transit service, the competition is the private automobile. There is much debate within the transportation planning community of what costs should be included in the operation of the automobile, ie, insurance, depreciation, maintenance, etc. There is no debate, however, that direct out-of-pocket costs such as parking and tolls should be included. To the extent that the setting of interstate bus fares takes into account the prevailing toll and parking charges, there should be a significant difference between bus fares to New York and fares to Philadelphia. A single statewide fare policy ignores these differences and perhaps unfairly hurts the competitive position of bus service in the Philadelphia market. It should also be noted that fares on the PATCO High Speed Line are also less than comparable NJ TRANSIT fares.

**Figure 2 Comparison of Per Capita Incomes**

*New Jersey Department of Labor*

<u>Comparison of Counties</u>	County Income Rank	1985 Per Capita Income	Estimated 1985 Population	Percent Of State	Population Density (pop/sq mi)
Atlantic	12	\$11,851	205,124	3%	318
Burlington	10	\$12,342	380,083	5%	438
Camden	15	\$11,398	488,080	6%	2094
Cape May	17	\$10,974	90,638	1%	181
Cumberland	21	\$9,137	134,921	2%	199
Gloucester	18	\$10,828	207,106	3%	589
Mercer	8	\$13,120	317,685	4%	1349
Ocean	14	\$11,455	379,973	5%	461
Salem	19	\$10,393	65,215	1%	173
South Jersey		\$11,615	2,268,825	30%	579
Bergen	3	\$16,850	841,277	11%	3432
Essex	13	\$11,810	845,740	11%	6566
Hudson	20	\$9,859	555,896	7%	9209
Hunterdon	4	\$15,683	92,773	1%	199
Middlesex	7	\$13,639	626,703	8%	1847
Monmouth	5	\$14,364	530,913	7%	935
Morris	2	\$17,004	417,124	6%	848
Passaic	16	\$11,093	461,382	6%	2256
Somerset	1	\$17,248	210,318	3%	667
Sussex	9	\$12,819	119,615	2%	217
Union	6	\$14,310	506,714	7%	4804
Warren	11	\$12,062	85,202	1%	232
North Jersey		\$13,776	5,293,657	70%	1426
New Jersey State		\$13,128	7,562,482	100%	923
North Jersey Per Capita Exceeds South Jersey Average By:		<u>19%</u>			
<u>Comparison of Major Cities</u>					
Atlantic City		\$9,205	37,140		
Camden City		\$5,731	81,984		
Trenton		\$8,699	91,743		
South Jersey Cities		\$7,634	210,867		
Jersey City		\$8,605	220,316		
Newark		\$6,494	318,468		
Paterson		\$7,216	139,818		
North Jersey Cities		\$7,328	678,602		

#### Inter vs Intra State Fares

Finally, there also exists a differential between interstate and intrastate fares that raises questions of equity. It is NJ TRANSIT's policy to maintain two separate tariffs for interstate and intrastate fares based on the argument that there are additional costs associated with providing service into Philadelphia. These additional costs relate to toll charges and running time costs within the City. The service to Philadelphia is also very "peak intensive", which puts added strain on capital budgets for the additional equipment needed to meet peak demands but which may be idle during other parts of the day.

The present two-tier system of fares charges a different base fare and a different zone increment for interstate and intrastate trips. Not only does the rider pay a higher fare for crossing the river, but he/or she also pays a different surcharge when crossing each zone boundary within New Jersey. The result of this policy creates two undesirable situations: possible charges of discriminatory pricing and misuse or disuse of the transit system.

As an example of the first, consider the situation of two passengers sitting side-by-side on a bus headed home to the suburbs, one who boarded in Philadelphia, the other who boarded in a New Jersey town. Assuming each paid the base portion of their fare upon boarding, the one from Philadelphia paid more to cover the costs associated with crossing the river and travelling through Center City. Then as they travel through New Jersey, assume each hands the driver the zone increment as they cross the zone boundary. Again, the rider who boarded in Philadelphia pays more, yet received the exact same service as the other rider. They both just travelled the same distance, on the same route, at the same time, on the same vehicle. Yet one is charged a higher price for that service.

The second situation that arises as a result of this two-tier fare policy is that after a certain distance, the differential between the interstate and intrastate fare becomes so excessive that it is significantly cheaper for the interstate traveller to make the trip using two vehicles. That is, he/she would pay less by travelling as far as the Delaware River on one bus, paying only the intrastate fare, then exit the bus and board another, paying the interstate fare for one zone. While it is hard to imagine that many riders would take the time to do such a thing, such inequities within the fare policy do tend to discourage transit use rather than entice commuters away from the automobile.

Any additional costs associated with providing service to Philadelphia could more equitably be met through a special zone charge for crossing the Delaware River, in affect, a differential base fare. To more fairly cover the costs associated with peak period service, costs which exist for both interstate and intrastate service, time-of-day pricing could be employed. This mechanism places premium fares on peak period service. Of course, the public should also expect premium service for the premium fare, for example express service.



## VI. SERVICE STANDARDS POLICY PROPOSAL

NJ TRANSIT, like most transit operators, establishes a set of standards which serve as guides to service planners. These standards are intended to insure that the service provided to the public continues to meet established expectations and to provide a yardstick against which to measure performance. Standards also enable the operator to both justify operating subsidy requests from the legislature and to defend denials of requests for new service by public officials based on the agreed to data.

This report does not attempt to identify all the service standards applicable to NJ TRANSIT. Rather, the intention is to propose two particular standards for consideration and discussion, with the goal that a debate of the issues presented by these standards will lead to a better transit service for South Jersey.

### Effective Speed

Every traveller wants to make trip his or her trip in the shortest amount of time possible. Yet whether travelling by transit or auto, travel time will be affected by many things: congestion, traffic signals and parking for auto users; congestion, traffic signals, and waiting for passengers to board and alight the vehicle for transit users. What the traveller who has a choice of modes understands is the approximate time it will take to make the trip by auto. The total time to cover the straight-line distance between two points translates to an *Effective Speed*.

Surveys conducted by DVRPC for NJ TRANSIT show that the most often cited reason auto commuters give for refusing to take an NJ TRANSIT bus to Center City is their perception that it will take too long. If transit is to be competitive, it must provide service that attains a comparable effective speed to that of using an auto. If there are other significant factors involved in the choice between modes, such as high tolls or parking charges, than the transit effective speed can be lower than the auto speed, barring any high transit fares. If, on the other hand, auto costs are low and transit fares are high, than the effective speed for transit must be much higher than the auto speed for transit to attract a portion of the market.

When transit vehicles must travel in mixed highway traffic, they become subject to the same speed conditions as the autos. Only when transit operates over an exclusive right-of-way can it achieve higher speeds than the general traffic. Therefore, for buses not operating on separate rights-of-way to attain the necessary effective speeds, the routings must be direct, using facilities with higher speeds, and making a limited number of stops. Of course, different effective speeds need to be established for different types of routes and for different highway conditions. Effective speed is to function as a guide for service planning and performance measuring and, therefore should be set as a target below which service is not acceptable. This will tend to discourage circuitous routings and the commuter routes for local service.

### Service Minimums

The second most frequently cited reason given for not using transit is the loss of freedom to come and go when the commuter chooses. The private auto provides the maximum flexibility in this regard which transit can only achieve in a limited way through very frequent service. The travelling public recognizes this limitation, but does expect there to be a number of opportunities within a period of time to make a trip. If service frequency is less than this number of opportunities, the risks are deemed too great and the loss of freedom of choice too significant to warrant taking the chance on transit. Of course, this level is different for each commuter. But by establishing a set of standards on the minimum number of trips that must be offered during a time period, schedules doomed to poor ridership can be avoided.

*Service Minimums* set a lower limit on the number of bus trips between two points that can be scheduled during a specified time period. They recognize that one or two trips can satisfy very few riders and will actually discourage transit use by commuters with a choice. Instead, the minimum number of trips must be scheduled; if that level cannot be justified, then the service either should not be run or should be subsidized by the requesting parties.