REPORT OF THE

VIRGINIA METROPOLITAN AREAS

TRANSPORTATION STUDY COMMISSION

To

THE GOVERNOR

And

THE GENERAL ASSEMBLY OF VIRGINIA

COMMONWEALTH OF VIRGINIA
Department of Purchases and Supply
Richmond
1970

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Virginia Metropolitan Areas Transportation Study Commission

to

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Richmond, Virginia

To: HONORABLE LINWOOD HOLTON, *Governor of Virginia*

and

THE GENERAL ASSEMBLY OF VIRGINIA

I. INTRODUCTION

The present Virginia Metropolitan Areas Transportation Study Commission is the second such commission to be so named. The Commission was created on the recommendation of the first Metropolitan Areas Transportation Study Commission, created pursuant to Senate Joint Resolution No. 21 of the 1968 Session of the General Assembly, that a new study group be appointed to formulate a comprehensive program for transit. Necessary matters for consideration were suggested as follows:

Transportation District Act of 1964

Evaluate the Transportation District Act of 1964 in relation to the establishment of Regional Transit Authorities.

Regional Transit Authorities

Number?
Locations?
Powers and Duties?
Should establishment be voluntary or mandatory?
Composition?

Franchises

In-depth study of franchises and their relation to the State Constitution, State Corporation Commission and local governing bodies.

Financial Assistance for Transit

Should the State make a financial commitment to transit?

If so, what form should assistance take?

a. Match portions of federal grant projects?

b. Loans?

c. State level grants?

d. Special projects?

e. Additional tax relief?

Public Ownership vs. Private Ownership

Investigate the feasibility and the economic desirability of acquiring privately owned transit with the objective of improving overall transit service and ridership.

School Bus Service

Study the possibility of aid for the transportation of city school children, the merit of yellow school bus requirements for State aid, and the effect State regulations have on urban transit operation and local citizen school bus costs.

Federal Programs

How can present and future federal aid programs for transit be most effectively used in Virginia?

Highway Program and Mass Transit

How can the Highway Program be directed to complement and support urban transit operations?

As a consequence of such recommendation Chapter 659 of the 1970 Acts of Assembly was enacted creating the present Commission. Its mission as stated in such Act is as follows:

> § 2. The Commission shall proceed to conduct a thorough study of transportation needs in the metropolitan areas of the Commonwealth, utilizing the work prepared by and for the Virginia Metropolitan Areas Transportation Study Commission of 1968-1970 and shall examine the following areas, in addition to such other matters which it deems relevant: the Transportation District Act of 1964, regional transit authorities, franchises, financial assistance for transit, public versus private transit facility ownership, school bus service, relevant federal programs, the State's highway program in relation to mass transit, and the proper State organization to implement transit programs and transportation activities in the Commonwealth.

Pursuant to this study directive the Governor appointed Ludwig Benner, Jr., Oakton; Delegate Henry O. Lampe, Arlington; Charles Majer, Annandale; A. Leslie Phillips, Arlington; Stuart Shumate, Richmond; and J. Wistar Stowe, Lynchburg. The President of the Senate appointed Senators William F. Parkerson, Jr., Henrico, and Edward E. Willey, Richmond. The Speaker of the House of Delegates appointed George B. Anderson, Danville; William M. Dudley, Lynchburg; and John R. Sears, Jr., Norfolk. Douglas B. Fugate, Commissioner, Department of Highways, and Charles H. Graves, Director, Division of State Planning and Community Affairs, served as *ex officio* members of the Commission. Robert H. Kirby as Mr. Graves' successor in office succeeded him as an *ex officio* member of the Commission. The Commission elected as its Chairman John R. Sears, Jr., and as Vice-Chairman Henry O. Lampe.

It proved necessary for the Commission to have staff and advisers. Richard K. C. Sutherland, Assistant Attorney General, acted as counsel. K. M. Wilkinson, Transportation Planning Engineer, Department of Highways, and Richard B. Robertson, Chief, Transportation Planning, Division of State Planning and Community Affairs (later succeeded by Spencer H. Elmore), served as advisers. The Virginia Advisory Legislative Council and the Division of Statutory Research and Drafting made staff and facilities available to carry out the study, David T. Walker, succeeded by Laurens Sartoris and Robert B. Cousins, Jr., being assigned to assist the study group.

Early in the course of the Commission's deliberations it became clear that the services of a professional consultant with expertise in the transportation field would be required. For this purpose the consulting firm of Wilbur Smith and Associates was retained. This firm has offices throughout the nation and the world with its local representatives housed in Richmond, who were therefore always available for consultation.

Following its creation the Commission held frequent meetings. Featured at many of these were the multiple progress reports submitted by the consultant and the contributions made by the staff advisers. The members were able to exchange ideas and provide direction to the consultant, so that in part, at least, the consultant's report reflects the guidance of the Commission. In addition to the regular meetings held at the State Capitol, the Commission held a two-day meeting in northern Virginia to examine the problems of urban mass transit firsthand. There the members conferred with representatives of the Northern Virginia Transportation Commission, the Department of Transportation and the Washington Metropolitan Area Transportation Authority, the last of which is responsible for the METRO system (subway).

After months of exhaustive research and analysis, the consultant made its final report, entitled *Public Transportation Needs in Virginia's Urban Areas*, to the Commission. Such report is submitted herewith as supporting material for the conclusions reached by the Commission. The consultant's report sets out the total urban transit picture in Virginia and a broad spectrum of solutions to many present and future problems. From this wealth of information the Commission has extracted the most critical problems and now makes recommendations which it believes to be the best current alternative solutions. Careful examination of the consultant's report in its entirety is urged for therein is provided a view of the past, present and future of the Virginia transit scene, a knowledge of which will allow for the enactment of sufficient measures to cope with problems in advance of their becoming insurmountable.

II. SYNOPSIS OF NEEDS, REQUIRED MEASURES AND CRITERIA FOR FUTURE ACTION

After studying transportation needs in the metropolitan areas of the Commonwealth, this Commission finds that the movement of people within Virginia's metropolitan areas confronts both local and State governmental bodies with certain needs and opportunities which merit the consideration of the General Assembly. Briefly stated, these needs are:

a. prompt responsible action to assure the availability of safe, efficient and economical mobility of all metropolitan area residents in the future,

b. conservation of resources which must be devoted to transportation purposes in these metropolitan areas in the future,

c. coordination of future land use in a manner which will reduce the rate of increase in the total transportation demand in metropolitan areas without sacrificing growth of the communities,

d. provision of a viable for-hire transportation system for that segment of the population which has no other transportation alternatives,

e. encouragement of more efficient use of existing highway capacity and reduction in the portion of public revenues devoted to construction of more highway capacity in metropolitan areas.

In response to the needs cited, and the decline of the transit network, certain steps are clearly required. Briefly stated, these are:

a. The plight of transit systems now operating in the urban areas of the State must receive attention promptly if their demise is to be forestalled, and this alternative to the private automobile and source of transportation for "captive riders" is to be preserved for the future.

b. Transit should be viewed as a necessary community function, which supports the well-being of the community, rather than a utility to be regulated and taxed for use of the public thoroughfares, and transit should be encouraged to be efficient and responsive to realistic service needs.

c. Planning and authorization for future land use should begin to attempt to minimize the rate of growth of transportation demand in relation to population and economic growth which results from changes in land use.

d. Stimuli to more efficient use of existing highway capacity, particularly during peak hours, should be developed and their implementation promoted.

e. A source of funds should be made available to local communities to permit them to support the transit services which they deem to be necessary to meet the needs of their community.

f. State policies and practices which have a bearing on these services should be coordinated to assist in meeting these local needs.

g. Authority, responsibility and accountability should be vested in a single State organization with the capability for meaningful and objective assistance, support and surveillance of the community efforts to implement these measures.

Implementation of the indicated steps should conform to certain criteria, against which all legislative recommendations and actions would be assessed. Briefly stated, these are:

a. Private enterprise should be encouraged to meet these transportation needs, with government to provide the services only if private enterprise, operated without unreasonable constraints, cannot provide them.

b. State programs should assist the localities in providing these services, which can and should best be handled most effectively at the local level.

c. Public transit programs financed on an "open-ended" basis should be avoided.

d. Program responsibility, authority and accountability should be clearly established at both the State and local levels.

e. Public resource limitations for transportation purposes must be recognized.

f. Innovation should not be stifled by governmental intervention.

g. Taxes which are permitted to be levied in support of transportation should provide positive incentives toward achieving program objectives.

h. Community support for the programs to be supported by public funds should be demonstrated before long-term public funding commitments are undertaken by a community.

i. Regular public reports of the cost and service performance of the transit systems should be required as a condition for application of public funds or tax relief.

j. Since such transportation is primarily a local responsibility, State role should be minimized over the long term.

k. Coordination of local transportation and land use planning and programs should be stimulated and motivated by any State actions.

III. SUMMARY OF FINDINGS

The supporting studies accurately portray the growing transportation problems associated with increasing congestion, excessive environmental pollution, declining transit services accompanied by increasing fares and costs, and resource limitations. Highway construction budgets reflect both the growing demand for transportation capacity and the relentless upward spiral of construction costs in urban areas. Despite the enviable record of the automobile as the prime mover of people in urban areas in this State, these problems signal a need to reassess past approaches to meeting urban mobility needs in our metropolitan areas, to be certain they are still valid.

This reassessment leads us to an inescapable conclusion: reliance on the use of the private passenger automobile to solve urban transportation needs, in toto, is too costly in terms of inefficiently utilized resources, casualties, environmental abuse and congestion to accept any longer its unrestrained growth, without alternatives in metropolitan areas. It is the development of alternatives, or their preservation, which requires responsible action now.

The report of the first Commission disclosed that a transit * problem exists in Virginia. The extent of this problem, together with ominous projections for the future if solutions are not found, became increasingly evident as the study progressed. Virginia is fortunate in that its transit situation has not reached a crisis state; however, as the population increases, with the consequent growth of urban areas, the magnitude of the problem can only expand.

After World War II, mass transit nationally began a definite downward trend. By the mid-1960's the number of riders on public conveyances had declined to less than half the 1926 figure, a decline which is both a cause and a result of the steadily increasing dominance by the private automobile in all phases of American life. Although it is frequently the least efficient method of moving people in an urban area, the private automobile is today the most popular and in some cities almost the only form of commuter transportation.

The passenger automobile consumes resources at a prodigious rate. Consider, for example, the portion of our energy resources devoted to fueling the automobile. Other resources are consumed more subtly, as occurs with the loss of innumerable man-years of human productivity in peak-hour traffic congestion. Other resources, though not consumed, are set aside for automobile use, as with parking spaces, expressways, and service facilities occupying large portions of urban land. These resources are not limitless. Therefore,

* "Transit" refers to common carrier passenger services operating on fixed routes and schedules in urban areas. Taxicabs, chartered buses and other variable route services provide important complementary services and should continue to do so. As used in this report, transit pertains to bus and similar transit services.

consideration must be given to the conservation of the total resources which must be committed to transportation purposes in these urban areas in the future.

Dispersal of our metropolitan area population as the influx to the cities continues, and the continuing economic growth of our urban areas are resulting in an ever increasing demand for transportation capabilities in these areas. The dispersal of the population increases reliance on the automobile, because of its convenience and flexibility, and because of the resultant decline in the ability of transit to serve efficiently a dispersed population. This increasing dependence on the automobile, in turn, causes ever-increasing congestion, delays and waste, particularly during peak-hour traffic between the dispersed residences and places of employment. This peaking of traffic, in turn, creates pressures for increased highway capacity, which then absorbs sufficient traffic to make further dispersal attractive. Thus, the cycle feeds on itself. If the cycle is to be broken, future land use must be guided to try to achieve a lesser rate of growth in transportation demand than in the rate of growth for population and economic activity.

Use of the automobile is not a wholly satisfactory means for fulfilling the demand for transportation by all metropolitan area residents. For those segments of the population with limited means, it is too costly. For others, including a large proportion who because of their youth, disability or advanced age cannot or will not hold drivers' licenses, its use is prohibited or unattainable. If economical for-hire transportation is not available to them, what reliable alternatives do they have to meet their transportation needs? Preservation of for-hire transit services is imperative to these "captive riders". Their needs cannot be ignored.

The Commonwealth has an unusually fine highways system in its urban areas, and for this, much credit is due the Department of Highways, which has managed well the resources entrusted to them. However, the Department has only limited control over the utilization of the highways in that it cannot control the "per vehicle" utilization. For example, it cannot control the declining ridership in transit, nor can it compel car pooling. It can, indirectly, as in the Shirley Highway exclusive bus lane traffic controls, aid in motivating increased vehicular utilization, but it is not in a position to control such utilization. Nevertheless, if available resources are to be applied in greater proportion to resolving nontransportation challenges in our urban areas, the need for costly added highway capacity must be discouraged by developing means to assure more efficient use of our existing highway capacity. The principal highway user requiring added capacity is the peak-hour commuter; if the peaking could be reduced, much of the construction of additional highway capacity could be avoided in the future in these metropolitan areas.

Mass transit, forced to compete with the private car, has not been successful. Declining numbers of riders have forced curtailment of services, which in turn causes more riders to switch to driving their own cars. Ever-rising costs have led to frequent fare increases, driving away more transit patrons, and often resulting in a net loss of revenues. Antiquated equipment, resulting in breakdowns and general discomfort, has further accelerated the flight of the commuter away from public transit. In the United States, urban transit is caught in a critical financial plight.

The solution in many cities has been public ownership of transit facilities. More and more city governments, faced with the failure of private companies to operate profitably, have been forced, as a last resort, to take over transit operations in order to provide critically necessary services. In Virginia, the cities of Bristol, Martinsville and Staunton have already taken this step.

Recent inflationary trends have driven labor, equipment and fuel costs higher than ever, and more and more transit systems fail to generate enough revenue to cover day-to-day operations (to say nothing of capital expenditures). Although the Urban Mass Transit Act of 1964 (UMTA) has made federal funds available to finance transit projects, it does not make any provision for federal subsidies for operational expenses. Clearly there is a need for action at the State level if mass transit is to continue to perform the service which is so critically needed.

Mass transit in Virginia, to a great extent, reflects the national trends. There are, however, significant differences. The financial bind has begun to grip privately financed transit systems in the State only recently, and also the number of passengers carried has been declining, though not as rapidly as nationally. Still, only seven of the twenty-six major transit operations in the State earned a profit in 1970.

All mass transit in the State at present is by bus. Some experts have concluded that there is little potential in Virginia for rail or other fixed route modes of urban transit, except in Northern Virginia, where rapid rail service by the Washington Metro System is not far from a reality. It is to be hoped that some efforts will be made, if only experimentally, with varying transit modes. Bus service, while it can do much to relieve traffic congestion, can also make it worse, particularly in close-in areas. Buses also do little to alleviate the pollution problem. These problems can be alleviated by technological advances and techniques such as reserved rights-of-way for buses. There are, however, great benefits which only rail transit can provide, and despite the far higher capital outlay required, rapid rail proposals should not be shelved. One possible area in which rail service can be extended is Norfolk-Virginia Beach. The Norfolk-Southern Railway traverses a corridor lying generally between Virginia Beach Boulevard and the Virginia Beach-Norfolk Toll Road, supplying freight rail service from Norfolk to Virginia Beach. As the demand for freight rail service requires only one train per day, the right of way appears to offer an opportunity to revive a rail passenger service in the growing residential and commercial corridor between the central areas of the two cities. Because of the limited funds available to this Commission, detailed studies of this nature could not be undertaken. Upon the recommendation of this Commission, the Department of Highways has undertaken an investigation of the potential of rail passenger service and as an alternative, a bus passenger service in the railway right of way.

Historically, most transit companies in Virginia have operated under a franchise granted by the municipality. These franchises, to a varying degree, have controlled the nature of transit operations. Transit companies have been considered public utility monopolies requiring strict regulation, and as such have been taxed for their use of the public streets. The attitude of many city governments toward their franchisee transit companies is outmoded. The franchise right in many cases has become a liability.

The major problem with the franchise concept is that the city can issue a franchise only within its boundaries. Thus, in areas where the metropolitan population lies in several jurisdictions, control of transit companies is badly fragmented to the detriment of transit service. While the State Corporation Commission has some jurisdiction over transit companies operating across county and city lines, no single State agency has the authority to exercise really effective control. In other areas the franchise system has encouraged a transit company to stay within city boundaries, thus precluding needed transit service to growing suburban areas. Public transportation in the Richmond area is a prime example of this latter phenomenon.

A major step away from the historical limits of the franchise system has been taken by the General Assembly of Virginia with the enactment of the Transportation District Act of 1964. This law allows localities to join together to form a service district for the providing of transportation services. To date only one such district has been formed, in Northern Virginia. The Northern Virginia area is also affected by the Washington Metropolitan Area Transit Commission formed by an interstate compact among Maryland, Virginia, and the District of Columbia. It remains to be seen, but is hoped, that other localities will recognize the benefits of such intergovernmental cooperative ventures.

Perhaps the most difficult problem to be overcome by mass transit in Virginia, as in other places, is the psychological resistance of the general population to mass transit in any form. The addiction of the average American to the private automobile is well known, and it seems to affect Virginians to an unusually high degree. There is a very real social stigma attached to the use of public transit in many parts of the State. This may decrease as traffic and parking problems grow worse. The fact remains, however, that if public transit is to attract riders away from private cars, it must be competitive in price and offer substantial advantages of time, comfort and convenience.

Recognizing the plight of public transit and realizing that solutions must be found in order to maintain viable transit systems, an awareness of the basic objectives of public transportation must be established. These objectives are as follows:

(a) To maintain and expand public transportation to meet the needs of urban residents and to form an effective part of a balanced transportation system;

(b) To accomplish this through the medium of private enterprise transit companies to the fullest extent possible;

(c) To ensure efficient and economical operation of publicly-owned services where they become necessary; and,

(d) To provide the level and cost of services deemed necessary and desirable by the local community.

Granted that public transit must be expanded in an effort to lessen the demand for the increasing need, if private ownership of transit systems is to be maintained, special assistance will have to be provided in order to sustain financial feasibility. Possible measures suggested for this purpose are:

(a) Remission of general and special taxes which constitute a substantial part of the cost of providing service;

(b) Prompt and timely action on reasonable requests for fare increases and service adjustments; and,

(c) The carrying out of traffic improvement measures to expedite and give priority to the movement of buses, thus increasing speed and reducing costs.

Of these measures, the one most apt to provide immediate aid is State and local tax relief. Remembering that it is vital to the public interest that transit systems continue in operation, and that relief will at best permit certain bus companies to become solvent, while permitting others to operate at a modest profit, thus being able to attract sufficient capital to continue operations and avoid the necessity of public ownership, the following might be accomplished:

(a) Exemption of privately-owned transit companies from the remaining six cents of the seven-cent State motor fuel tax, saving

approximately $500,000 in operating expense for Virginia's transit system;

(b) Exemption from the $60 per bus State license fee, amounting to about $90,000 per annum; and,

(c) Relief from municipal gross receipts or privilege taxes aggregating about $550,000 on a State-wide basis, although 85 percent of this amount is collected in two cities (Richmond and Norfolk).

An alternative or ancillary method to tax relief of subsidization of private transit companies is a purchase-of-service agreement between the private company and a local governmental agency. Here the community in effect buys a company's service for the benefit of the public on a contractual basis. In time, this approach may provide a major means of preserving and expanding transit service.

When private capital is no longer available to maintain transit service for the public, the only alternative, if service is to be maintained, is public ownership. The advantages of public ownership are exemption from taxes and the use of public funds or credit to finance capital improvements and to absorb operating losses. Despite the fact of public ownership, any transit system is essentially a local function within its own urban area. As the consultant has observed,

"Where the built-up or urbanized area lies within a single political jurisdiction, the appropriate local unit of government is the city or county. In most cases, however, population growth and business activity has spilled over political boundaries, so that a single urbanized area may encompass a number of cities, towns and counties. The Virginia Transportation District Act of 1964 provides the legal mechanism for cities, towns and counties, each having jurisdiction over part of an urban area, to join together in providing a unified transit service.

"The local urban community, whether a single city, or a group of contiguous cities and counties acting together through the transportation district, is the appropriate unit of government to determine the type of transit service it needs and desires and how it should be funded. Such a decision will involve a balancing of needs and desires with the feasible and productive limits of fare charges, and the ability and willingness of local taxpayers to provide tax funds."

The ultimate rub is providing sufficient funds to finance and operate transit machinery and facilities. There are a variety of potential sources of revenue which can be tapped for this purpose, some exclusively local and some exclusively State-oriented in character. Generally, however, possible revenue solutions are adaptable to either State or local programs. The following are certain possible local sources which might be authorized:

(1) *A local motor vehicle registration fee* authorizing cities and counties within an established Transportation District to increase their local motor vehicle registration fee to a maximum amount of $5.00 in excess of the limitation now imposed by § 46.1-65 of the Code of Virginia. The revenues produced by the additional fee would be earmarked to support the needs of public transit. Its imposition would be optional at the local level by each local government in the transportation district.

(2) *An additional tax on motor fuels* to be designated for public transit needs and allocated to transportation districts for such purposes.

(3) *A sales tax* to be optional for local governments within an established

transportation district, the funds produced by it to be used specifically for public transit needs.

(4) *An additional percentage of the State income tax* levied on taxpayers residing within the defined area of the transportation district to be used for support of transit.

(5) A *household unit tax* which would authorize cities and counties supporting urban transit services, either separately or as participants in a transportation district:

a. to appropriate funds for the purchase of transit service and to meet the capital needs of such service; and,

b. to levy excise and/or additional business privilege taxes to be used for the purchase of such service and to meet capital needs. The household tax could be levied on all persons within the jurisdiction (or in the case of a transportation district, within the defined area of the district) who are billed for municipal utility or sewer taxes in an amount, for example, not to exceed $1.00 per month for each housing unit, or household. The tax could also be levied on businesses, based on the number of employees, but not to exceed for example, $12.00 per month.

As has been stated, those local revenue options which are listed are largely adaptable to State implementation, which will become more apparent in this report. The State also may make direct appropriations of funds to localities, from whatever source realized, on a matching basis to insure local cooperation and assure viable transit service in Virginia. Were the State to reimburse cities or transportation districts one-half of their cost of maintaining public transit service, the following would be required:

(1) *State Funds for Operating Costs*—That the General Assembly appropriate funds to reimburse cities and counties, acting singly, or jointly as constituent units of transportation districts to the extent of one-half of all amounts they may expend for the operation or purchase of transit service within their jurisdiction in excess of the amount collected in fares and from other revenue sources, provided that the amount of State reimbursement does not in the aggregate exceed 15 percent of the gross operating revenues of the transit system. In computing the amount to which the reimbursement shall apply, the full amount of any special taxes levied or collected by a city or county (i.e. taxes applicable only to the transit system) shall be deducted.

(2) *State Funds for Capital Costs*—That the State appropriate funds to reimburse cities and counties, acting singly, or jointly as constituent units of transportation districts for one-half of the required local contribution which they pay to the cost of purchasing buses or other transit facilities under the two-thirds federal capital grants program, without distinction as to whether such buses and facilities are to be used by privately or publicly-owned transit systems.

Based on continuation of present fares and passenger volumes, but taking into account probable increases in labor and other costs, the State portion of the subsidy of operating expenses in the 1971-72 biennium would amount to approximately $2,500,000.

Because of the large number of over-age buses presently in operation, capital replacement costs in the 1971-72 biennium would be very high, one-half of the local one-third amounting to about $4 million. By spreading the

replacement program out over a longer period of years, one-half of the local share for the 1971-72 biennium could be reduced to $1.5 to $2.0 million.

IV. *RECOMMENDATIONS*

A. Revisions should be made in the Transportation District Act of 1964 providing for increased powers for such districts, establishment of single-member districts in certain instances and limitation on the authority of the State Corporation Commission.

B. An additional three dollar ($3.00) registration fee should be levied Statewide in order to provide funds for the continuation and expansion of transit services.

C. Tax relief should be granted Virginia's insolvent or nearly insolvent transit companies in order that these may continue to be operated by private ownership, thus postponing the day of public ownership.

D. The State Board of Education should be directed to allow for reimbursement of localities for the transportation of pupils by conveyances other than the standard yellow school bus.

E. All transit systems should be required to prepare and file uniform records with the State Highway Commission.

F. The present Commission should be continued in existence to study in greater detail matters contained in this report, keep advised of developments in public transit as they occur and prepare legislative and other proposals to deal with the ever complex and multifarious problems of transit service.

V. REASONS FOR RECOMMENDATIONS

A. REVISIONS SHOULD BE MADE IN THE TRANSPORTATION DISTRICT ACT OF 1964 PROVIDING FOR INCREASED POWERS FOR SUCH DISTRICTS, ESTABLISHMENT OF SINGLE-MEMBER DISTRICTS IN CERTAIN INSTANCES AND LIMITATION ON THE AUTHORITY OF THE STATE CORPORATION COMMISSION.

The investigation of the Commission revealed that in order for viable transit systems to be maintained and operated, it is imperative that an effective administrative framework exist. As has already been stated the character of transit is local, which leads to the conclusion that the administrative functions of transit service should be operated not from some remote point in a distant city, but by qualified experts in the area who are well acquainted and able to cope best with local transit problems.

We feel that the basic legislative authorization for the establishment of effective local control is extant in the form of the Transportation District Act of 1964 (§§ 15.1-1342 et seq. of the Code of Virginia). The Act authorizes the voluntary formation of transportation districts by any two or more counties or cities for the purpose of providing transit service. The district furnishes the vehicle through which a unified area planning effort can be exerted, thus eradicating many current transit problems such as separate franchising agreements, multiple fares and limitation of service.

Despite the benefits which accrue through the formation of transportation districts, there are modifications which need to be made in the existing legislation in order to guarantee efficiency of operation and purpose, thereby stimulating the creation of new districts. It is hoped that improved legislation will bring about the formation of the following districts, which are vital to efficient urban transit:

(1) *The Southeastern Virginia Regional Area,* comprising the cities of Norfolk, Portsmouth, Virginia Beach, and Chesapeake;

(2) *The Richmond Regional Area,* consisting of the city of Richmond, and Henrico and Chesterfield Counties;

(3) *The Peninsula Region,* including the cities of Newport News and Hampton, and York and James City Counties;

(4) *The Roanoke Regional Area,* including the cities of Roanoke and Salem, and Roanoke County;

(5) *The Petersburg-Hopewell-Colonial Heights Area,* encompassing those cities, and the counties of Prince George and Dinwiddie.

Changes which are needed include statutory authority to districts to issue bonds and control interjurisdictional transit operations. The first change speaks for itself. The exercise of the power to issue bonds will allow districts to finance their functions in an efficient and practical manner. The latter change will grant districts authority presently exercised by the State Corporation Commission. Currently a transit operation within a single jurisdiction is subject to the laws and regulations of the jurisdiction within which it functions. If a transit operation extends beyond a jurisdictional boundary line the controlling authority is the State Corporation Commission. In areas where transportation districts do not exist, the present law, although it fosters less efficient service, is necessary to insure proper regulation. Once a district is formed, however, it seems proper for such an area authority to control transit within its boundaries. The law today relieves districts of regulatory authority which they are best qualified to exercise in the public interest.

There are certain cities in the State, such as Danville and Lynchburg, which though faced with the problems of urban mass transit, are surrounded by areas which do not share their problems. In order to cope with such situations it seems wise to revise the Transportation District Act so as to provide for single member transportation districts under extraordinary circumstances to make such localities eligible for a variety of State-aid to be discussed later. In such instances local governing bodies might act as the governing authority of the district. It is also recommended that single member transportation districts, under special circumstances be given limited jurisdiction in contiguous jurisdictions over transit operations in order that these be coordinated successfully.

B. AN ADDITIONAL THREE DOLLAR ($3.00) REGISTRATION FEE SHOULD BE LEVIED STATE-WIDE IN ORDER TO PROVIDE FUNDS FOR THE CONTINUATION AND EXPANSION OF TRANSIT SERVICES.

The key factor which will stimulate the formation of transportation districts is providing adequate revenue resources to the districts to function properly. After its examination of all the available options to raise funds for this purpose the Commission feels that the wisest course of action is to increase the present motor vehicle registration fee by three dollars ($3.00) to be distributed to the districts on a per capita basis contingent upon a district's providing its own funds to match the State's contribution. The additional fee would be collected on all motor vehicles in Virginia by the Division of Motor Vehicles and turned over to the State Highway Commission for distribution as provided above to the extent of funds available. It appears that the State Highway Commission is best suited for the task of administration and distribution of the funds as it is involved already in planning ventures to aid mass transit and has an operational staff throughout the Commonwealth. Such funds would not be relinquished without the State Highway Commission first

being satisfied that the district was complying with the following control standards; prerequisites for this State aid:

(a) Demonstrated efficiency of operation as exhibited by comparative unit operating revenue and expenses in comparable cities.

(b) Reasonable and realistic route coverage and headway standards, measured in relation to normal industry practice and related to traffic volume.

(c) Normal and reasonable pay scales, working conditions, and employee benefits for both management and labor.

(d) Reasonable and realistic fares with a minimum of preferential and concession fares unrelated to the cost of service.

(e) Continued operation by private enterprise to the fullest extent possible.

(f) Current filing of monthly and annual reports, including year-end audit, by the local transit system.

(g) Assured availability of necessary local funds which the State contribution will match.

(h) Full advantage taken by the local system to secure federal grants for capital items and to reduce interest expense.

(i) The local government to effect or have plans to effect reasonable and necessary traffic control measures, such as parking prohibitions, traffic signal controls, preferential treatment for transit vehicles, to avoid delays and increase the speed of transit vehicles and thus reduce costs.

(j) The State to retain the right to make management and financial audits and inspections of the transit system.

The law permits any county or city to collect a local motor vehicle registration fee equal to the amount collected by the State. In consideration of the need of funds for mass transit, it is recommended that if the additional Statewide registration fee of three dollars be authorized, the three dollars then made available to localities be required to be used for transit purposes and be collected only by jurisdictions within transportation districts. The local additional fee might be used as the matching funds for qualification for State-aid.

C. TAX RELIEF SHOULD BE GRANTED VIRGINIA'S INSOLVENT OR NEARLY INSOLVENT TRANSIT COMPANIES IN ORDER THAT THESE MAY CONTINUE TO BE OPERATED BY PRIVATE OWNERSHIP, THUS POSTPONING THE DAY OF PUBLIC OWNERSHIP.

The unfortunate financial plight of transit companies in Virginia has already been discussed herein. The best immediate aid which can be supplied is relief from taxation. Without this relief either localities will have to assume control of transit operations or operations will have to be curtailed or ceased. At the risk of redundancy, we repeat that it is in the best public interest to maintain viable transit service in urban areas. The termination of service is extremely undesirable and governmental control is thwarted by lack of funds.

Granted, tax relief may be only an interim measure. In time, localities or, better still, transportation districts may have to assume control of all transit operations. Nevertheless, with the lack of funds and administrative structure in most areas, it is best to keep transit in private hands. The recommendation is

that the industry be relieved of payment of the State motor fuel tax, State motor vehicle license fees and municipal gross receipts taxes. The total relief granted would amount to approximately $1,140,000 which is a small price in comparison with the alternatives.

D. THE STATE BOARD OF EDUCATION SHOULD BE DIRECTED TO ALLOW FOR REIMBURSEMENT OF LOCALITIES FOR THE TRANSPORTATION OF PUPILS BY CONVEYANCES OTHER THAN THE STANDARD YELLOW SCHOOL BUS.

The transportation of public school students to and from the schools represents a special transit problem. Our concern is with the lack of reimbursement for localities for the transporting of pupils on buses which do not meet standard specifications established by the State Board of Education. The Commission is the first to recognize that pupil safety is the primary consideration. In rural and remote areas the "standard yellow school bus" is an efficient and safe mode of travel.

Transporting of pupils in urban areas is a different problem. In light of recent court decisions more pupils will be bused more miles than in the past. The localities are having to sustain huge outlays of capital to finance the purchase of new buses, maintenance equipment and facilities and labor. Under present regulations there is no aid available in the absence of usage of the yellow bus.

There are excellent reasons for allowing compensation in the absence of any particular model bus. In urban areas the transportation of pupils on private bus lines has achieved safety records comparable to those of yellow buses. In fact, the construction of transit buses is better and their operation consequently safer than Board of Education approved yellow school buses. Transit buses acquired by localities for school purposes might also be used to transport other members of the community. Needless to say, the presence of a yellow bus stopped on a crowded city street at rush hour cannot help but create havoc and cause congestion as other motor vehicles must halt.

The operation of yellow buses may also toll the knell of private transit systems which depend on fares from pupil transportation. In cities the use of yellow buses will take thousands of passengers from the private lines and reduce revenues forcing another giant step down the path of insolvency. A legislative directive to the Board of Education to correct this situation seems imperative.

E. ALL TRANSIT SYSTEMS SHOULD BE REQUIRED TO PREPARE AND FILE UNIFORM RECORDS WITH THE STATE HIGHWAY COMMISSION.

Throughout the study of a lack of pertinent information relative to the operation of transit operations was manifest. For interjurisdictional operations this is not the case, but for intrajurisdictional operations reporting is not mandatory. Legislation is needed to require all transit systems to file basic uniform financial, operating and statistical records with a central State agency, preferably the State Highway Commission. There should be included a detailed annual financial and operating report and some form of abbreviated monthly report of the same nature.

If this information is required to be filed, a readily accessible compilation of information will be available at all times to allow analysis of current problems and projections of future needs for State, local and federal authorities.

F. THE PRESENT COMMISSION SHOULD BE CONTINUED IN EXISTENCE TO STUDY IN GREATER DETAIL MATTERS CONTAINED IN

THIS REPORT, KEEP ADVISED OF DEVELOPMENTS IN PUBLIC TRANSIT AS THEY OCCUR AND PREPARE LEGISLATIVE AND OTHER PROPOSALS TO DEAL WITH THE EVER COMPLEX AND MULTIFARIOUS PROBLEMS OF TRANSIT SERVICE.

The problems of urban mass transit are numerous; far too numerous to be comprehended and dealt with at any one time. We feel that having examined transit problems this far, it would not be wise to end State-wide observation thereof. All of the problems and suggested solutions contained herein are complex. Each of them should be given further consideration.

The members of this Commission have devoted much time and energy to the vital problems of urban mass transit. We should like to continue our efforts, along similar lines, so that the Governor and the General Assembly may be kept apprised of transit needs and have well reasoned and documented information and suggested solutions available at all times. The continuation of this Commission may itself become a prime factor in preserving, developing and expanding urban mass transit.

VI. CONCLUSION

The efforts of the Commission have produced two primary results; the compilation and analysis of vital information and recommendations predicated thereon. If our work is to have any reward it will be in the enactment of the legislative proposals which are appended hereto, for this is the means by which mere hopes can become reality. We trust that it shall be the pleasure of the General Assembly to act favorably upon our proposals.

Respectfully submitted,

JOHN R. SEARS, JR., *Chairman*
HENRY O. LAMPE, *Vice-Chairman*
GEORGE B. ANDERSON
LUDWIG BENNER, JR.
WILLIAM M. DUDLEY
CHARLES MAJER
WM. F. PARKERSON, JR.
A. LESLIE PHILLIPS
STUART SHUMATE
J. WISTAR STOWE
EDWARD E. WILLEY

A BILL

To amend and reenact § 15.1-1345, as amended, of the Code of Virginia; and to further amend the Code of Virginia by adding a section numbered 15.1-1357.1, relating to the creation of transportation districts and powers of regulation thereby.

Be it enacted by the General Assembly of Virginia:

1. That § 15.1-1345, as amended, of the Code of Virginia be amended and reenacted and the Code of Virginia be further amended by adding a section numbered 15.1-1357.1, as follows:

§ **15.1-1345. Procedure for creation of districts.**—*(1)* Any two or more counties or cities, or combinations thereof, may, in conformance with the procedure set forth herein, or as otherwise may be provided by law, constitute a transportation district and shall have and exercise the powers set forth herein and such additional powers as may be granted by the General Assembly. A transportation district may be created by ordinance adopted by the governing body of each participating county and city, which ordinances shall (1) set forth the name of the proposed transportation district (which shall include the words "transit district" or "transportation district"), (2) shall fix the boundaries thereof, (3) shall name the counties and cities which are in whole or in part to be embraced therein, and (4) contain a finding that the orderly growth and development of the county or city and the comfort, convenience and safety of its citizens require an improved transportation system, composed of transit facilities, public highways and other modes of transport, and that joint action through a transportation district by the counties and cities which are to compose the proposed transportation district will facilitate the planning and development of the needed transportation system. Such ordinances shall be filed with the Secretary of the Commonwealth and upon certification by that officer to the governing bodies of each of the participating counties and cities that the ordinances required by this chapter have been filed and, upon the basis of the facts set forth therein, satisfy such requirements, the territory defined in such ordinances, upon the entry of such certification in the minutes of the proceedings of the governing bodies of each of the counties and cities, shall be and constitute a transportation district for all of the purposes of this chapter, known and designated by the name stated in the ordinances.

(2) Notwithstanding the provisions of subsection (1), any county or city may, subject to the applicable provisions of this chapter, constitute itself a transportation district in the event that no governing body of any contiguous county or city wishes to combine for such purpose. The governing body of any single jurisdictional transportation district shall assume the powers and duties of such Commission as is provided in this chapter. At such time as the governing body of any contiguous county or city complies with the provisions of subsection (1) of this section, the transportation district formed pursuant to this subsection shall be deemed to be dissolved and shall itself comply forthwith with the provisions of subsection (1).

§ 15.1-1357.1. The Commission also shall have the power to exercise exclusive control, notwithstanding any provision of law to the contrary, of matters of regulation of fares, schedules, franchising agreements and routing of transit facilities within the boundaries of its transportation district.

A BILL

To amend the Code of Virginia by adding a section numbered 33.1-223.1 relating to filing of statistical data by transit systems with the State Highway Commission.

Be it enacted by the General Assembly of Virginia:

1. That the Code of Virginia be amended by adding a section numbered 33.1-223.1, as follows:

§ 33.1-223.1. Any transit system as defined in § 15.1-1344 which conducts its operations within the exclusive jurisdiction of any county, city or town or within the boundaries of any district as defined in § 15.1-1344, and any jurisdiction contiguous thereto, shall file annually with the State Highway Commission such financial and other statistical data as the State Highway Commission shall require in order to effectively administer the provisions of § 46.1-167.

The provisions of this section shall not be construed so as to exempt any such transit system from any provision of law or regulation made pursuant to law which requires the filing of data with any other agency of the Commonwealth.

A BILL

To amend and reenact §§ 46.1-65 and 46.1-167 as amended, of the Code of Virginia; and to further amend the Code of Virginia by adding sections numbered 46.1-149.1 and 46.1-166.1; relating to taxes and license fees imposed by counties, cities and towns on motor vehicles; disposition of fees collected by the Division of Motor Vehicles; additional such fees and exemption from same in certain instances.

Be it enacted by the General Assembly of Virginia:

1. That §§ 46.1-65 and 46.1-167 as amended, of the Code of Virginia be amended and reenacted, and that the Code of Virginia be further amended by adding sections numbered 46.1-149.1 and 46.1-166.1, as follows:

§ 46.1-65. Taxes and license fees imposed by counties, cities and towns; limitations on amounts; disposition of revenues; requiring evidence of payment of personal property taxes; prohibiting display of plates after expiration.—(a) Except as provided in § 46.1-66 counties, incorporated cities and towns may levy and assess taxes and charge license fees upon motor vehicles, trailers and semitrailers; provided that no such taxes and license fees shall be assessed or charged by any county upon vehicles of owners who are residents of any town located in such county which constitutes a separate school district approved for operation when such vehicles are already subject to town license fees and taxes. The amount of the license fee or tax imposed by any county, city or town upon any class of motor vehicles, trailers or semitrailers shall not be greater than the amount of the license tax imposed at the time of the annual registration in 1963 by the State on vehicles of like class. Such license fees and taxes shall be imposed in such manner, on such basis, and for such periods, as the proper authorities of such counties, cities and towns may determine, and subject to proration for fractional periods of years in the manner prescribed in § 46.1-165.

(b) The revenue derived from all county, city or town taxes and license fees imposed upon motor vehicles, trailers or semitrailers shall be applied to general county, city or town purposes, as the case may be, except that in any county having a population of more than eleven thousand four hundred but less than eleven thousand nine hundred, or in any county having a population of more than thirty thousand but less than thirty-one thousand, this revenue shall be paid into the school fund of such county.

(c) A county, incorporated city, or town may require that no motor vehicle, trailer or semitrailer shall be locally licensed unless and until the applicant for such license shall have produced satisfactory evidence that all personal property taxes upon the motor vehicle, trailer or semitrailer to be licensed have been paid which have been properly assessed or are assessable against the applicant by the county, incorporated city or town.

(d) If in any county imposing license fees and taxes under this section, a town therein imposes like fees and taxes upon vehicles of owners resident in such town, the owner of any vehicle subject to such fees or taxes shall be entitled, upon such owner displaying evidence that he has paid the amount of such fees or taxes, to receive a credit on the fees or taxes imposed by the county to the extent of the fees or taxes he has paid to such town. Nothing herein contained shall be construed as depriving any town now imposing such licenses and taxes from increasing the same

or as depriving any town not now imposing the same from hereafter doing so, but subject to the limitations provided in the foregoing paragraph. The governing body of any county and the governing body of any town in said county wherein each impose the license tax herein provided may provide mutual agreements so that not more than one license tag in addition to the State tag shall be required.

(e) Any county, city or town levying taxes and charging license fees under this section may by ordinance provide that it shall be unlawful for any owner of a motor vehicle, trailer or semitrailer to display upon such motor vehicle, trailer or semitrailer any license plate of such county, city or town after the expiration date of such license plate. Any such ordinance may provide that a violation of such ordinance shall constitute a misdemeanor and be punishable by a fine not exceeding twenty dollars.

(f) Except as provided by paragraph (d), no vehicle shall be subject to taxation under the provisions of this section in more than one jurisdiction.

(g) Notwithstanding any other provision of this section any additional registration fee which any county, city or town becomes eligible for and collects pursuant to § 46.1-149.1 shall be used only for the purposes of urban mass transit consistent with the declared intent of the Transportation District Act of 1964 as specified in § 15.1-1343. No county, city or town which is not a component government of a transportation district as provided in § 15.1-1345 shall be eligible to collect license fees in excess of that provided by § 46.1-149.

§ 46.1-149.1. In addition to any other fee authorized by the terms of this article, three dollars shall be collected annually for the registration of every motor vehicle subject to annual registration at the time of such annual registration, to be distributed as provided in § 46.1-167.

§ 46.1-166.1. Notwithstanding any provision of law to the contrary, motor vehicles with a seating capacity in excess of fourteen persons regularly used in the conveyance of passengers solely within the limits of any transportation district created pursuant to § 15.1-1345 or any county or city and any immediately contiguous county or city, shall be exempted from any registration fee provided by the terms of this article.

§ 46.1-167. Disposition of fees.—(a) Except as otherwise provided in §§ 46.1-35 and 46.1-314 all fees and licenses collected pursuant to the provisions of chapters 1 through 4 (§§ 46.1-1 through 46.1-347) of this title shall be paid into the State treasury and warrants for the expenditure of funds necessary for the proper enforcement of this title shall be issued by the Comptroller upon certificates of the Commissioner or his representatives, designated by him and bonded, that the parties are entitled thereto, and shall be paid by the State Treasurer out of such funds, not exceeding the amount appropriated in the general appropriation bill.

(b) This fund, except as is otherwise provided in this section, shall constitute a special fund to be expended under the direction of the State Highway Commissioner for the construction, reconstruction and maintenance of roads and bridges in the State Highway System, Interstate System and Secondary System of State Highways; provided that any funds available for construction or reconstruction under the provisions of this section shall be, as nearly as possible, equitably apportioned by the Commission among the several construction districts.

(c) There may be paid out of this fund (1) as a contribution toward the construction, reconstruction and maintenance of streets in cities or towns and (2) for the operation and maintenance of the Department of Highways, Department of State Police and the Division of Motor Vehicles such sums as may be provided by law.

(d) The moneys collected pursuant to § 46.1-149.1 shall constitute a separate special fund to be distributed for the purposes of mass transit under the direction of the State Highway Commission to transportation districts organized pursuant to § 15.1-1345 in a ratio consistent with the population of each transportation district with the total population of all transportation districts, contingent upon the furnishing by the respective component governments of such districts of funds equal to those to be distributed according to such ratio by the State Highway Commission.

On July one of each year the State Highway Commission shall make any unexpended funds as were collected pursuant to this subsection during the previous calendar year available to any transportation district subject to its component governments' providing funds equal to that requested by it. Such unexpended funds may be distributed by the State Highway Commissioner at his discretion, based on the relative needs of transportation districts.

The State Highway Commission shall promulgate rules consistent with the intent of the Transportation District Act of 1964, as prescribed in § 15.1-1343 the compliance with which shall be the determining factor of qualification to receive such funds collected pursuant to this subsection in any instance.

A BILL

To amend and reenact § 58-757.01 of the Code of Virginia, relating to refunds of certain full taxes to urban and suburban bus lines.

Be it enacted by the General Assembly of Virginia:

1. That § 58-757.01 of the Code of Virginia be amended and reenacted as follows:

§ **58-757.01. Who entitled to refund; applications; time for filing; applicability of other laws as to refunds.**—Notwithstanding any other provisions of law, any person, firm or corporation who purchases motor fuel for consumption in motor vehicles used in operating urban or suburban bus lines in this State, upon which motor fuel taxes imposed by the laws of this State have been paid, shall be entitled to a refund of such motor fuel taxes ~~in excess of six cents per gallon~~ upon presentation to the Commissioner of an application for such refund setting forth the fact that such motor fuel was consumed in motor vehicles while being used in operating urban or suburban bus lines in this State, which are hereby defined as bus lines the majority of whose passengers use the buses for travelling a distance of not exceeding forty miles, measured one way, on the same day between their places of abode and their places of work, shopping areas or schools.

Any consumer entitled to such refund shall file with the Commissioner an application in writing duly signed by the applicant, accompanied by a paid ticket or invoice from the dealer or retailer showing such purchase. Such application shall set forth the total amount of such fuel so purchased and used by such consumer in operating urban or suburban bus lines upon any of the public highways, streets or alleys of this State, and how used. The Commissioner, upon the presentation of such application and such paid ticket, invoice or other document, shall pay to such consumer from the taxes collected on motor fuels a refund of such motor fuel taxes ~~in excess of six cents per gallon~~ paid on fuels sold, delivered and used as aforesaid. But the application for refund as provided herein must be filed with the Commissioner within three months from the date of the sale or invoice on forms prepared and furnished by the Commissioner.

Except as otherwise provided in this chapter, all provisions of law applicable to the refund of gasoline taxes and other motor fuel taxes by the Commissioner shall apply to the refunds authorized by this chapter. Provided, however, that cities and towns and any county having withdrawn its roads from the secondary system of State highways under the provisions of § 11 of chapter 415 of the Acts of 1932 shall receive their proportionate share of such special fund as is now provided by law with respect to other motor fuel tax receipts.

A BILL

To repeal § 58-639.1 of the Code of Virginia relating to charges of gross receipts taxes by cities.

Be it enacted by the General Assembly of Virginia:

1. That § 58-639.1 of the Code of Virginia is repealed.

A BILL

To prohibit the State Board of Education from promulgating certain rules relating to the qualification for pupil transportation funds.

1. § 1. The State Board of Education shall make no rule or regulation, pursuant to the authority delegated by § 22-276 of the Code of Virginia, which conditions the distribution of pupil transportation funds upon the use of school buses which are designed especially for the transportation of pupils.

A BILL

To establish a third Virginia Metropolitan Areas Transportation Study Commission, and to appropriate funds therefor.

Whereas, the General Assembly in 1968 created by Senate Joint Resolution No. 21 the Virginia Metropolitan Areas Transportation Study Commission and by Chapter 659 of the Acts of Assembly of 1970 created the second Commission of the same name; and

Whereas, such Commissions submitted reports to the Governor and General Assembly fully outlining the scope of the matters which must be studied further to develop proper programs and plans to deal effectively with the problems of mass transportation in our urban areas; and

Whereas, the areas studied by such Commissions are complex and will require additional study in order to prepare a total program for improved transit; now, therefore,

Be it enacted by the General Assembly of Virginia:

1. § 1. This act establishes the third Virginia Metropolitan Areas Transportation Study Commission. The present members shall continue as the members of the Commission, provided that if any member be unwilling or unable to serve, or for any other reason a vacancy occurs, his successor shall be appointed in the same manner as the original appointment was made. In addition, the State Highway Commissioner and the Director of the Division of State Planning and Community Affairs shall be members of the Commission ex officio. The Commission shall elect its Chairman from the membership.

§ 2. The Commission shall continue to conduct a thorough study of transportation needs in the metropolitan areas of the Commonwealth, utilizing the work prepared by and for the earlier Virginia Metropolitan Areas Transportation Study Commissions and shall continue to examine the following areas, in addition to such other matters which it deems relevant: the Transportation District Act of 1964, regional transit authorities, franchises, financial assistance for transit, public versus private transit facility ownership, a school bus service, relevant federal programs, the State's highway program in relation to mass transit, and the proper State organization to implement transit programs and transportation activities in the Commonwealth.

§ 3. The members of the Commission shall be paid their necessary expenses incurred in the performance of their duties but shall receive no other compensation. In the conduct of its study, the Commission shall be authorized to employ full-time or part-time staff personnel including, without limitation, such professional aides as a staff director, research and operating engineers, attorney, economist and draftsmen and such clerical and stenographic assistance as required.

§ 4. The Commission may accept and expend gifts, grants, and donations from any or all sources or persons for the purpose of carrying out its study, including appropriations made to it by law.

§ 5. All agencies of the State and the governing bodies and agencies of all political subdivisions of the State shall cooperate with and assist the Commission in its study.

§ 6. The Commission shall submit its final report to the Governor and the

General Assembly not later than December 1, 1973, and may submit interim reports in advance of such date.

2. There is hereby appropriated to the Virginia Metropolitan Areas Transportation Study Commission from the general fund of the State treasury the sum of sixty thousand dollars for the purposes of this act.

PUBLIC TRANSPORTATION NEEDS IN VIRGINIA'S METROPOLITAN AREAS

PREPARED FOR

VIRGINIA METROPOLITAN AREAS
TRANSPORTATION STUDY COMMISSION

By

Wilbur Smith and Associates

November 1971

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CONSULTING ENGINEERS AND PLANNERS

2 NORTH 5TH STREET
Richmond, Virginia 23219

November 12, 1971

Hon. John R. Sears, Jr.,Chairman
Virginia Metropolitan Areas Transportation Study Commission
State Capitol
Richmond, Virginia, 23219

Dear Mr. Sears,

We are pleased to submit our report, Public Transportation Needs in Virginia's Metropolitan Areas. The report was prepared in accordance with our agreement of December 11,1970, and takes into account the views expressed by Commission members and governmental agencies during the course of the Study.

We hope that the Commission will find the report information and recommendations responsive to its needs, and of assistance in meeting its legislative mandate.

It has been a pleasure to work with you and the members and staff of the Study Commission. The assistance and cooperation of the many State, county, city and transit system officials contacted during the course of the work is gratefully acknowledged.

Respectfully yours,

Wilbur S. Smith

Registered Professional
Engineer, Virginia No. 156

MEMBERS OF THE SECOND VIRGINIA METROPOLITAN AREAS TRANSPORTATION STUDY COMMISSION

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Henry O. Lampe, Vice Chairman

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Wilbur Smith and Associates

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* denotes also member of First Study Commission, 1968-69.

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Chapter 1

INTRODUCTION

The continuing concentration of population growth and activity in the nation's urban areas makes public transport an increasingly important element of the total transportation system. The costs, physical limitations, and environmental impacts of providing roadway and parking space in urban areas for individual private car travel have become critical. These problems can be brought within manageable dimensions by an increasing use of transit, particularly for peak-hour work trips. Equally important is the mobility transit provides urban residents who do not own or drive a car because of age, physical disability, or limited income.

Until recently most Virginia transit systems have been able to meet the full costs of providing service from farebox revenues. In many cases, they made substantial payments of general and special taxes to state and local governments. However, as a result of rising costs and reduced patronage, only six major transit systems in the State earned a net income in 1970; of these, several expect deficits as additional wage increases take effect in 1971. In total, Virginia's industry sustained a loss of over $600,000 in 1970—approximately two per cent of gross revenues.

A continuation of this trend could result in serious curtailment of vital transit services. Governmental financial support appears essential for (1) maintaining existing services and (2) expanding these services to meet growing urban mobility requirements.

To maintain or increase present levels of public transportation usage requires a quality and cost of transit service which are reasonably competitive with the private car. The sharply increasing costs of providing transit service, however, constantly work against this objective; they impel higher fares or diminished levels of service as long as these costs are to be met wholly from fares paid by users.

The Immediate Problem

Virginia's public transport services are concentrated in 12 urban regions which contain more than half of the State's 4,648,494 residents. Most of these services operate in several political jurisdictions within the State, and in Northern Virginia and Bristol the systems also extend into adjacent states.

Most transit is provided by privately-owned bus companies which operate without public support or subsidy. Privately-owned and financed companies account for 21 of the 26 operations in the 12 areas and they carry 96 per cent of all passengers. City-owned transit systems serve Bristol, Martinsville, and Staunton. Two state-financed tunnel bus operations serve the Norfolk-Hampton Roads area and are operated under contract by the local privately-owned bus systems.

The emphasis on privately-owned transit services reflects public policy as set forth in the Transportation District Act of 1964 and in the Virginia legislation in regard to the Washington Metropolitan Area Transit Compact—the operation of transit by private enterprise to the fullest extent possible.

Scope and Objectives of Study

The State has shown increased concern about its responsibilities in public

transport.[1] Accordingly, the Virginia Metropolitan Areas Transportation Study Commission was created by Chapter 659 of the Acts of the General Assembly of Virginia, 1970 [2] to carry out a definitive study of the public passenger transportation needs in the State's urban areas and to suggest the proper state organization to implement transit programs in the Commonwealth. The 1970 Commission continues the work of the first Study Commission appointed in 1968, which proposed a comprehensive report and analysis of the position of transit in Virginia.[3]

In its recommendation for further action [4] the first commission, noting that "Transit is not only an important element in urban transport systems but is also vital to the health of the State's urban society," recommended that the second commission's efforts be directed to the development of a *comprehensive state program for transit.*

Transit must be recognized as an essential public service whose costs must increasingly be met in part from public funds. This is the context and scope of the current study. The basic objective is to develop a positive program for the betterment of urban transit service. Accordingly, the study explores and defines procedures and courses of action that might be adopted by the Commonwealth to deal effectively with the financial, operational, regulatory and administrative problems which affect Virginia public and private transit services. It suggests policies and actions to help public transportation attract a greater number of users and thereby contribute more significantly to meeting urban mobility requirements.

The study covers issues such as: What levels of service should be provided in Virginia's cities? What costs are involved? How can these costs be met? What management, legislative actions, and public policies are necessary?

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1. Public transport or "transit" refers to common carrier passenger services operating on fixed routes and schedules in urban areas. Taxicabs, chartered buses and other variable route services provide important complementary services and should continue to do so. The analyses in this report, however, pertain to bus and similar transit services. For definitions of the various types of public transport services see the U. S. Department of Transportation definitions used in the National Transportation Needs Study, included as Appendix A-1.
2. See Appendix A-2 for text of Act.
3. *Urban Transit in Virginia,* by the Staff of the Virginia Metropolitan Areas Transportation Study Commission, September, 1969.
4. *Recommendation-Course for Further Action,* First Virginia Metropolitan Areas Study Commission, Appendix A-3.

Chapter 2

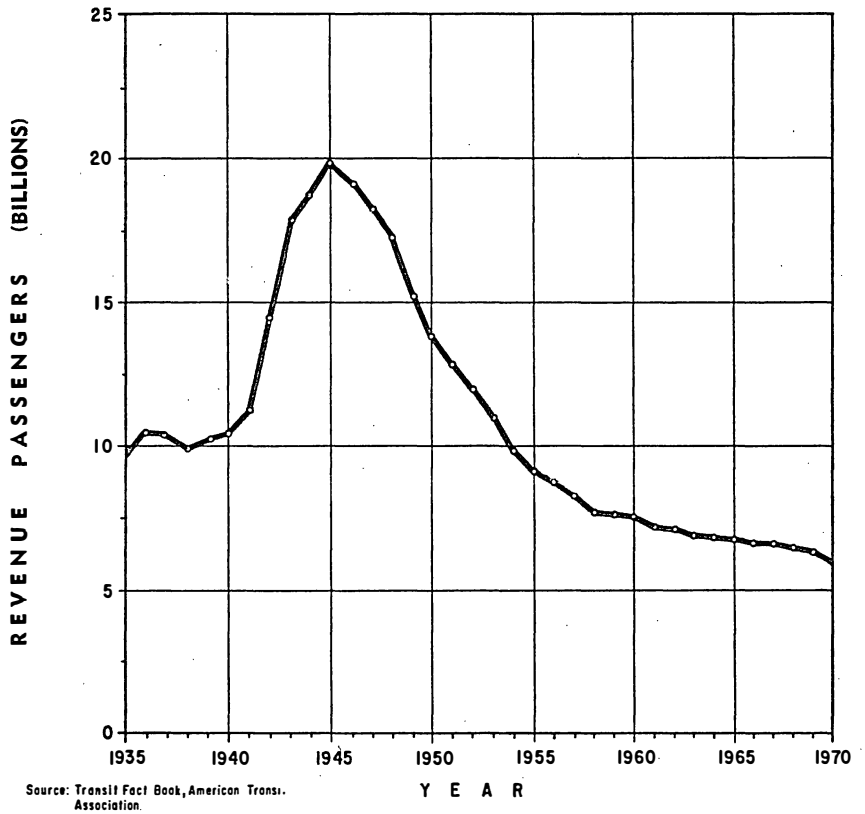
TRANSIT IN THE MODERN CITY

Transportation has played an important role in shaping the modern metropolis. Within the last century, successive developments in urban transportation forms have altered the growth, structure, and configuration of American cities, and have made possible large concentrations of population and a dispersal of population and business over urban areas.

Public transport enabled the city to extend beyond walking distances. The horse and cable cars, the electric street car, and elevated and underground rapid transit trains, and later the motor bus, permitted people to move out from the city center along radial transit corridors. Transit usually served as a major centralizing influence by making possible high concentrations of downtown employment and economic activity. Downtown Manhattan, Washington, and Richmond, as well as the centers of many smaller communities, owe their growth, development and form to public transport services. There remains today a strong interrelation between good public transport and downtown activity. Public transport permits intensely developed compact central areas which in turn support major transit services. More than half of peak-hour travelers to the downtown areas in the nation's larger cities use transit.

In the second half of the century, the automobile made possible and encourages the dispersal of population and business activity. Urban areas extended outward, rather than upward. As the radius of urban development expanded, offices, factories and stores appeared in suburban areas.

The effects of these changes have been widely documented. Private car travel has increased dramatically, while public transport riding has decreased from 20 billion riders in 1945 to 6 billion today, as shown in Figure 1. The nation's transit systems, caught in a cost-fare squeeze, have, in the aggregate, operated at a deficit for nearly a decade. Maintaining and improving essential transit services is an important concern of all levels of government.



Source: Transit Fact Book, American Transit Association.

TRENDS IN TRANSIT PASSENGERS IN THE UNITED STATES 1935-70

Wilbur Smith and Associates

FIGURE 1

Public Transport Benefits

Public transport today is increasingly viewed as an essential public service which produces important benefits to users and to the general community. Even with increased automobile usage, transit remains an integral part of the total urban transportation system—a basic urban necessity.

An increasingly larger segment of the urban population must rely on public transport as its mode of travel. As road congestion and parking problems and costs increase in urban centers, good transit service offers an attractive alternate to private car use in urban centers, particularly in peak hours. Dependent riders include persons with limited income, retirees, those who have no access to autos or cannot operate one, and the very young and very old. Transit is a "standby" service to many members of the community when weather is inclement or when automobiles are unavailable.

Public transport is essential to maintain a strong, compact, healthy center city. It provides high radial capacities and allows far greater intensities of development than are possible with reliance on the private automobile alone. Transit permits compact, consolidated, mutually reinforcing downtown development; it provides movement channels which do not require extensive land areas. An increase in downtown Richmond's employment, for example, could create difficult movement problems if these peak-hour movements were served by automobiles alone.

Benefits of improved transit services include:

1. *Time savings to transit users*—improved transit service can reduce travel times for present transit users and those diverted from automobiles. The San Francisco Bay Area Rapid Transit system is expected to produce $51 million in benefits by 1975, of which $41 million represents time savings.[1]
2. *Time savings to automobile users*—congestion is reduced for automobile users when transit accommodates a larger proportion of the urban travel.
4. *Savings in automobile facilities*—reduced public investment in highway and parking facilities may result where motorists are diverted to transit. In some cases, freeways may not even have to be constructed.
5. *Increased capacity*—transit can provide high-capacity service, including corridors where it may be difficult to provide new highways. Virginia's Shirley Highway Busway actually carries more people in the peak hour than the adjacent highway lanes; the same is true of Chicago's Congress Street rapid transit lanes.
6. *Improved amenity*—transit fits into the urban structure with minimum environmental impact and can also help to reduce air pollution.
7. *More effective community structure*—transit can help shape areas of growth and change, and achieve land-development goals.
8. *Greater mobility*—transit can increase urban opportunities for recreation, culture, education, and employment.

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1. The Economics and Importance of Speed, *Journal of the Highway Division,* American Society of Civil Engineers, June, 1968 by Herbert S. Levinson.

Thus, maintenance and expansion of existing transit service is a key community concern. This is an important challenge in the modern automobile-oriented metropolis.

Transit Demand Determinants

Current patterns of transit usage vary widely among cities. Each city is unique in land use mix, growth prospects, and reliance on public transport. The basic determinants of transit demand and use include (a) downtown employment, (b) trip purpose, (c) parking availability and costs, (d) relative availability of highway and transit services, (e) capacities of major highways, and (f) car ownership and availability.

Older cities with dense concentrations of population, high downtown employment, and physical barriers to highway travel place far greater reliance on transit than newer cities which developed in the automobile age. Urban areas with strong central business districts are more conducive to public transport than cities with weak or diffused central areas. Cities with low car ownership rely more heavily on public transport than those with high car ownership.

Transit and Total Trip Generation—The effects of car ownership on urban travel behavior are generalized in Table 1. There is an increase in total trips and a reduction in transit use as car ownership rises. For example, in medium-size cities (such as Richmond) there are 0.4 transit trips per capita in non-car households as compared with less than 0.2 transit trips per capita in car-owning households.

Table 1

DAILY TRIPS PER PERSONS IN URBAN AREAS

	CARS PER HOUSEHOLD		
	0	1	2+
Large City			
Total Trips	1.0	2.0	3.0
Transit Trips	0.7	0.3	0.2
Medium-Size City			
Total Trips	1.0	2.3	3.3
Transit Trips	0.4	0.2	0.1
Small City			
Total Trips	1.0	2.5	3.5
Transit Trips	0.3	0.1	0.1

SOURCE: Comprehensive Transportation Studies, 1960-1970.

The trends toward greater decentralization and higher car ownership call for basic policy decisions and actions to maintain and expand existing transit service. The interacting factors determinative of differing levels of transit are shown in Figure 2. It is clear that public transport must progressively improve its services to retain its ridership. The impact of increased automobile ownership on transit riding in the United States is shown in Table 2.

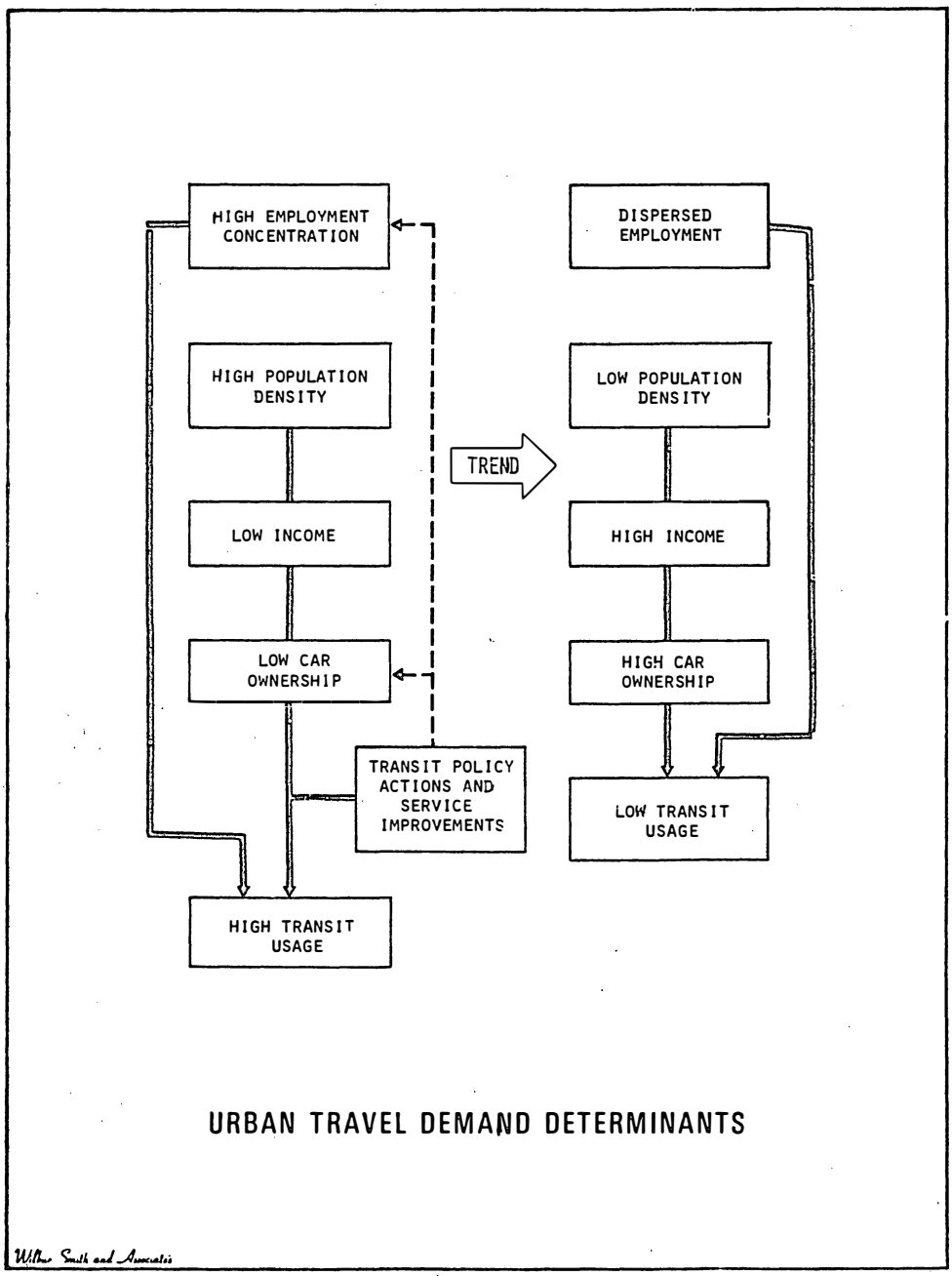


Table 2

CHANGES IN TRANSIT RIDING AND PRIVATE CAR OWNERSHIP
United States

Five-Year Intervals 1935-1970

YEAR	TRANSIT REVENUE PASSENGERS[1] NUMBER (millions)	TRANSIT REVENUE PASSENGERS[1] 5-Year Change (per cent)	PASSENGER CARS REGISTERED Number (millions)	PASSENGER CARS REGISTERED 5-Year Change (per cent)	ANNUAL TRANSIT RIDES PER CAPITA OF POPULATION[2]
1935	9,782	-	22.5	-	138
1940	10,504	+ 7.4	27.4	+21.7	141
1945	18,982	+80.7	25.7	- 6.2	255
1950	13,845	-27.0	40.2	+56.4	154
1955	9,189	-33.6	52.0	+29.4	91
1960	7,521	-18.2	61.4	+18.1	67
1965	6,798	- 9.6	74.9	+22.2	52
1970	5,932	-12.7	88.9	+18.7	40

(1) Source: American Transit Association, Transit Fact Book.
(2) Based on urban population.

Problems and Perspectives

Transit's current financial problems in a large measure reflect the general urban problems of rising costs, declining revenues, and reduced services.

Public transport's basic problems arise from its changing role in the modern city. Historically, in the United States transit has been a public service operated as a private enterprise. Before the private automobile became the dominant mode of urban travel, transit had almost an assured market and was generally a profitable undertaking. Most transit companies were privately-owned and operated; their fares and rates of return were established by public utility commissions. Public transport was viewed as a monopoly to be regulated.

Gradually, the relative roles of the various modes changed. Increased use of private motor vehicles made possible new and more scattered patterns of urban development. The automobile became the dominant travel mode except for central corridors in the larger cities, and the bus virtually displaced the electric railway, except for rapid transit lines.

Public transport no longer has a monopolistic position. The need today is *not* regulation of transit to limit profits but rather measures to keep transit systems functioning at reasonable fare levels.

Maintaining existing services in the face of higher operating costs and declining patronage is a major dilemma facing the nation and Virginia today. The erosion of transit patronage and profits has few counterparts in other industries.

Trends in Revenue and Expense—Trends in transit industry revenues, expenses, and net income or loss, are shown in Table 3. Declining volumes of passengers and sharply rising expenses have resulted in mounting losses each year since 1963, with the deficit reaching $288 million in 1970.

Table 3

TRENDS IN TRANSIT REVENUE AND EXPENSE

United States Transit Industry
Five-Year Intervals, 1935-1970

	REVENUE PASSENGERS (millions)	VEHICLE MILES OF SERVICE (millions)	REVENUE			OPERATING EXPENSE (millions)	OPERATING INCOME BEFORE INTEREST	
			Passenger Fares	Other Sources (millions)	Total		Amount (millions)	
1935	9,782	2,312	$ 642.3	$ 39.1	$ 681.4	$ 585.4	$ 96.0	14.1
1940	10,504	2,596	701.5	35.5	737.0	660.7	76.3	10.3
1945	18,982	3,254	1,313.7	66.7	1,380.4	1,231.7	148.7	10.8
1950	13,845	3,008	1,386.8	65.3	1,452.1	1,385.7	66.4	4.6
1955	9,189	2,447	1,358.9	67.5	1,426.4	1,369.7	55.7	3.9
1960	7,521	2,143	1,334.9	72.3	1,407.2	1,376.5	30.7	2.2
1965	6,798	2,008	1,340.1	103.7	1,443.8	1,454.4	(10.6)	(0.7)
1970(1)	5,932	1,883	$1,639.1	$ 68.3	$1,707.4	$1,995.6	$ (288.2)	(16.9)

SOURCE: Transit Fact Book, 1970, American Transit Association.

(1) Preliminary.

Since 1950, transit passengers have dropped from 13.8 billion to 6.0 billion; since 1954, 114 cities under 100,000 population have lost their transit services; fares have trebled but operating revenues are in deficit.[2]

Impacts on Transit Use—Since 1950 the average fare per passenger in the U. S. transit industry has risen from 10 to 27.6 cents. Operating expense per passenger in the same period rose from 10 cents to 33.6 cents as shown in Table 4. The amount of service in relation to use rose from 0.22 vehicle miles per passenger in 1950 to 0.32 vehicle miles in 1970. Revenue passengers per vehicle mile, a primary index of transit usage, dropped from 4.6 to 3.1 in the same period.

2. Adapted from testimony by Secretary of Transportation John A. Volpe, "Hearings Before the Subcommittee on Housing of the Committee on Banking and Currency," U. S. House of Representatives, March 3, 1970, pp. 114-115.

Table 4

OPERATING EXPENSE PER MILE AND PER REVENUE PASSENGER

U.S. Transit Industry

Five-Year Intervals, 1935-1970

YEAR	OPERATING EXPENSE Per Vehicle Mile (cents)	OPERATING EXPENSE Per Revenue Passenger (cents)	AVERAGE FARE PER PASSENGER (cents)	REVENUE PASSENGERS PER VEHICLE MILE	AVERAGE VEHICLE MILES PER PASSENGER
1935	25.3	6.0	6.6	4.2	0.24
1940	25.4	6.3	6.7	4.0	0.25
1945	37.8	6.5	6.9	5.8	0.17
1950	46.1	10.0	10.0	4.6	0.22
1955	56.0	15.1	14.8	3.8	0.27
1960	66.0	18.3	17.7	3.7	0.28
1965	72.4	21.4	19.7	3.4	0.30
1970	106.0	33.6	27.6	3.1	0.32

SOURCE: Transit Fact Book, 1970, American Transit Association.

Labor Costs—Although labor cost now accounts for nearly two-thirds of transit operating expense, productivity has not materially changed in recent years. Thus, the current trends of a five to ten per cent annual wage increase, coupled with a rising proportion of travel in peak hours, will have further adverse impact on the transit industry. As shown in Table 5, average annual earnings increased from twelve thousand five hundred and thirty-three per year to thirteen thousand four hundred and eighty-two, but due to severe drop in patronage revenue passengers per employee decreased from fifty-eight thousand to forty-three thousand. Since most transit service mileage is now scheduled on a policy rather than a volume basis, the potential for increasing labor productivity in the industry is limited.

Table 5

CHANGES IN EARNINGS AND PRODUCTIVITY OF TRANSIT EMPLOYEES

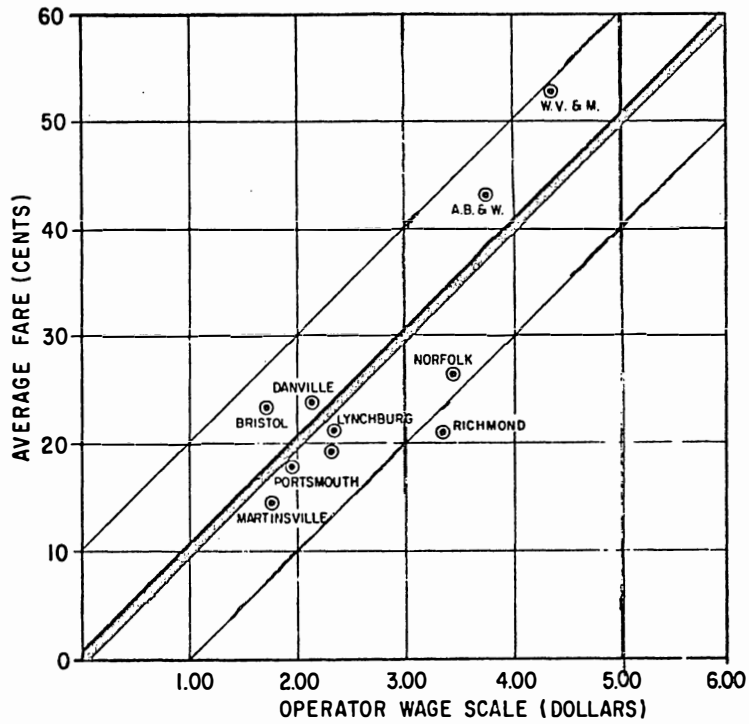
United States Transit Industry

1935-1970

YEAR	AVERAGE ANNUAL EARNINGS PER EMPLOYEE				AVERAGE NUMBER OF EMPLOYEES	PRODUCTIVITY	
	Amount	Increase In Dollars	Increase Per Cent	Per Cent Of 1960 Level		Vehicle Miles Per Employee	Revenue Passengers Per Employee
1935	$1,536	$ - -	-	28.0	209,000	11,062	46,804
1940	1,773	237	15.4	32.3	203,000	12,788	51,744
1945	2,612	839	47.3	47.6	242,000	13,446	78,438
1950	3,479	867	33.1	63.5	240,000	12,533	57,688
1955	4,364	885	25.4	79.6	198,000	12,358	46,409
1960	5,481	1,117	25.6	100.0	156,400	13,702	48,088
1965	6,645	1,164	21.2	121.2	145,000	13,848	46,883
1970	9,230	2,585	38.9	168.3	138,040	13,842	42,921

Source: Aviation Transit Association, Transit Fact Books.

The escalation in costs has necessitated corresponding increases in fares. The close correlation between fares and drivers' wages in Virginia's transit systems as shown in Figure 3 reflects the same conditions that have prevailed in most U. S. cities. It implies a 45 to 50-cent fare when drivers' wages reach $5.00 per hour—unless operating costs are subsidized.



RELATIONSHIP BETWEEN HOURLY WAGE RATE
AND AVERAGE FARE
SELECTED VIRGINIA TRANSIT SYSTEMS

Wilbur Smith and Associates

FIGURE 3

Impacts of Fare Increases—The continued rise in fares would produce travel costs which considerably exceed the *fully allocated* cost of automobile ownership. A 35-cent fare for a 3-mile transit trip, for example, equals a cost of 12 cents per passenger mile.

Reductive effects of fare increases on transit patronage have consistently proven severe. The general experience has been that for each one percent increase in the average fare a loss of one-third of one percent in patronage will result. There have been variations among cities, the some experiencing larger and others smaller impacts, but the one-third of one percent has generally represented the industry's experience.

It is clear that public transport has limited resources from its own revenues for service modernization, expansion, and experimentation. This problem is nationwide, and it also exists in Virginia. The financial stringency has resulted in service reductions and abandonment. It has brought about increased public ownership and growing financial support from, local, state, and Federal governments.

Public Ownership—The ownership and operation of transit as a municipal or local government function, while limited in extent until the past decade, is by no means an unusual situation in the United States. Prior to 1930, while the automobile age was still in its infancy, at least a dozen cities had taken over the operation of transit. These included larger cities such as San Francisco, Detroit, and Seattle, and smaller ones—Monroe and Alexandria, Louisiana, and St. Petersburg and Coral Gables, Florida. As shown in Table 6, another 12 cities assumed the function of providing transit service between 1930 and 1950. These included New York, Chicago, Boston, and Cleveland, as well as smaller cities such as Springfield, Missouri, and San Angelo, Texas. The 1950 decade saw the beginning of severe financial difficulties for private transit companies, with 19 major systems going into public ownership in this period, the two largest being Los Angeles and San Antonio.

Table 6

U. S. TRANSIT SYSTEMS BECOMING PUBLICLY OWNED

PERIOD	NUMBER OF TRANSIT SYSTEMS
Prior to 1920	6
1920 - 1929	6
1930 - 1939	5
1940 - 1949	7
1950 - 1959	19
1960 - 1969	66
1970 - 1971	13
TOTAL	122

SOURCE: American Transit Association

Since 1960 a total of 79 major transit systems have become publicly-owned and supported. Included were those in the majority of the large urban complexes and middle-sized cities, and many in the 25,000 to 100,000 population range. By 1970 over 80 percent of U. S. transit riders were being served by publicly-owned systems. The largest urban area with privately-owned transit is Houston, Texas. Others include the Washington, D.C. area, Atlanta, New Orleans, Milwaukee and Buffalo, although moves toward public ownership are being made in many of these cities.

Abandoned Services—About smaller 125 United States cities have experienced a total abandonment of local transit services in the post-war period. The largest of these had a population of 80,000 but most were in the 25,000 to 35,000 range.

Public Support of Transit

Increasingly in recent years, definitive action has been taken by all levels of government to preserve and expand urban transit service. These include tax relief to transit companies, new publicly-financed transit agencies, and the provision of funds for service innovations, equipment modernization, and rapid transit development.

Transit is essentially a local function and primary responsibility for its support rests with the local community, which can make its own determination as to the type and amount of transit service it desires, the proportion of its cost to be borne by users in the form of fares, and the proportion to be borne by the community as a whole from public funds. However, in recent years both state and Federal governments have shown increasing recognition of the wider implications and benefits of effective urban transit on a statewide and a national scale and have moved to assist local governments.

State Aid—State assistance to local public transit has taken the forms of reduction or elimination of taxes such as those on motor fuel and gross receipts, and in empowering local governments to levy special taxes and issue bonds in support of their transit systems. More recently, a number of states—notably, Pennsylvania, New York, and Michigan—have begun to provide state funds in aid of local transit, for both capital costs and operating expenses.

A recent survey by the American Transit Association of 149 transit systems both publicly and privately owned indicate substantial numbers receiving financial assistance for operating deficits as well as capital charges, as shown in Table 7.

Table 7

FINANCIAL ASSISTANCE TO PUBLIC TRANSPORT

1970

	NUMBER OF TRANSIT SYSTEMS		
	Publicly Owned	Privately Owned	Total
Total Number of Systems Reporting	49	100	149
Type of Assistance			
1. Capital Charges	22	3	25
2. Operating Losses	21	11	33
3. Reimbursement of Reduced School or Senior Citizens Fares	9	7	16
4. Other Assistance	12	7	19
5. Relief from Taxation, Imposts (Exclusive of Federal Excise Tax on Motor Fuel)	-	40	40

SOURCE: American Transit Association.

Thirteen states have established Departments of Transportation in an attempt to coordinate transportation planning, while others provide transit assistance through existing state agencies.

Federal Aid—Since 1961 the Federal government has provided aid to urban transit in increasing amounts. Direct Federal financial assistance is limited to capital equipment and facilities. If all prescribed regional and transportation planning requirements are met, non-repayable Federal grants may amount to two-thirds of the capital cost of new transit facilities; if such planning conditions are not met the Federal share is limited to fifty percent. The Federal grant program had made possible the survival of many transit systems as far as capital replacements and additions are concerned, given impetus to improvement and revitalization of transit throughout the nation.

Federal grants have also been made available for transit technical and feasibility studies, and the financing of projects demonstrating and testing in actual use new types of transit vehicles, services, and concepts. In addition, large-scale research and development activities, covering equipment, facilities, and operating techniques, have been carried out.

Funding—Under recent legislation the Urban Mass Transportation Administration has increased its finding of urban transit improvements. *The Urban Mass Transportation Assistance Act* of 1970, which became law on October 15, 1970, authorizes appropriations of $10 billion in transit assistance to be made over the next 12 years. Of this amount $3.1 billion can be obligated within the next five years. The fiscal 1971 budget has been approved at $385 million, as shown in Table 8. The expanded program includes (a) capital grants, (b) demonstration projects, and (c) research and development. It does *not* provide Federal assistance in meeting operating costs. It is designed to (1) maintain existing physical facilities; (2) provide capital funds to allow expansion of existing services; and (3) encourage development and implementation of new transit facilities.

Table 8

UMTA PROGRAM AND FINANCING

Urban Mass Transportation Administration
U. S. Department of Transportation

PROGRAM BY ACTIVITIES	PROJECT APPROVALS		
	1970 (actual) (000)	1971 (estimated) (000)	1972 (estimated) (000)
Capital Facilities Grants	$132,675	$269,700	$497,000
Technical Studies Grants	8,030	15,000	25,000
Research, Development, and Demonstration Grants and Contracts	16,325	40,300	75,000
University Research and Training	3,007	3,000	3,000
Total Grants and Contracts	$160,037	$328,000	$600,000
Capital Facilities Loans	-	57,000	-
Total Grants, Contracts, and Loans	$160,037	$385,000	$600,000

SOURCE: Urban Mass Transportation Administration.

The Federal capital program, which provides two-thirds Federal financing, has helped make possible the new rapid transit systems being built in San Francisco and Washington; financed extensions of existing rapid transit systems; and sponsored experiments with new forms of transport, such as the automated Transit Expressway in Pittsburgh. It has provided funds to many cities to acquire and modernize bus systems, and it has encouraged specialized service innovations, such as Atlanta's Intercept Shuttle Bus and the Minneapolis Nicolett Mall. The capital grant programs have been instrumental in maintaining service in many cities; the demonstration programs have been of limited success because of their localized nature and short-term duration.

The Federal Highway Administration and the Urban Mass Transportation Administration have initiated multi-modal Urban Corridor studies in 11 states.

Overview

The increasing cost in money, and the impact on urban land and the environment, of undertaking to provide the streets and parking facilities that would be necessary for total use of private car travel in cities, focus importance on the role of mass transit in meeting these problems.

In particular, a growing awareness of the social and fiscal costs of air pollution in urban areas, to which the private automobile by sheer weight of its numbers is a major contributor, direct attention to public transport as a vital element in environmental control.

The "public-benefit" aspects of transit, which necessarily involve noneconomic services in terms of user charges, must be provided by the community in the same manner as fire, police, garbage collection, and other essential services. With the costs involved in this larger "public-benefit" concept, the question has become not whether public support of transit is desirable, but to what extent and in what manner it is required to achieve the amount and quality of service needed for transit to meet its expanded role.

This chapter has identified the changing role of public transport in the modern metropolis. It has shown how transit is increasingly recognized as a vital public service. Many Federal and state, as well as local actions have been initiated to preserve and expand transit services in urban centers, and to maintain "mobility for all" in an automobile-oriented society. It is in this context that transit planning and policy formulation for Virginia's cities should proceed.

Chapter 3

TRANSIT IN VIRGINIA

Transit problems in Virginia's cities are similar to those of other urban centers. Patronage has declined, costs have increased, fares have risen, an increasing number of companies operate marginally, and continuation of services is often questionable.

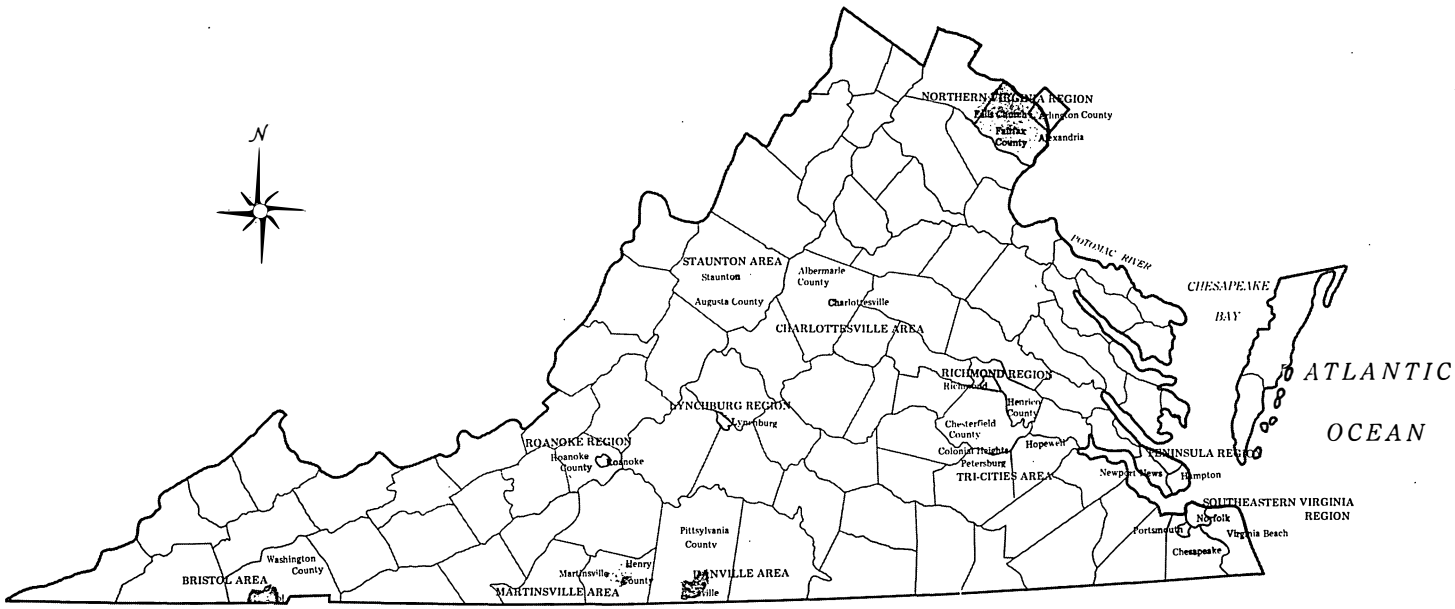
The Urbanized Areas of Virginia

Virginia's transit services are concentrated in 12 metropolitan regions which contain half of the State's population in less than two per cent of its area. Twenty-six companies provide service.

The urban regions vary greatly in size and in the type and extent of their transit needs and problems. They fall into three general classifications:

1. *The Northern Virginia Region* (Arlington, Fairfax, Alexandria) constitutes a part of the Washington Metropolitan Area. The 23.4 million transit passengers in this region generate 24 per cent of the annual transit volume in Virginia.
2. *The three larger urban areas* include the Southeastern Virginia (Norfolk-Portsmouth-Virginia Beach-Chesapeake), Peninsula (Newport News-Hampton), and Richmond (Richmond-Henrico-Chesterfield) regions, whose 56.5 million annual transit riders account for 59 per cent of the statewide total.
3. *The eight urban areas under 200,000 in population* consist of Roanoke-Salem, Petersburg-Colonial Heights-Hopewell (the Tri-Cities area), Lynchburg, Danville, Bristol, Charlottesville, Staunton, and Martinsville. These produce 16 million transit rides annually, accounting for the remaining 17 per cent of the total.

These urbanized areas and the transit systems serving them are shown in Figure 4.



METROPOLITAN AREAS OF VIRGINIA

FIGURE 4

Transit System Characteristics—Virginia's transit operations are characterized by the following factors:

1. The size of the systems varies from small surburban companies with a few buses to the 490 units owned by the two properties serving the Northern Virginia region. Only five of the companies operate over 100 buses.
2. All transit operations in the State are by conventional motor bus. An emerging exception is the rail rapid transit system now under construction in the Washington Metropolitan Area, substantial parts of which will be serving the Northern Virginia region within the next five years.[1]
3. All areas except the inner portion of Richmond have medium to low population densities.
4. The transportation of students at reduced fares is a significant supplemental revenue source for most of the companies, but the increasing demands for urban school transportation present problems of capital investment, labor cost, and expansion of free school buses at public expense.
5. The long-term prospects in most of the State's urban areas, except Northern Virginia,[1] for rail rapid transit, central city micro-systems and other fixed-route technologies appear limited.
6. It is clear that the primary nature and thrust of future transit in Virginia relates to bus services except in the Northern Virginia area.[2] Improvements in buses and bus systems will, however, be important in terms of improved vehicle performance and attractiveness, reduction of pollution, and operations over reserved rights-of-way.

Patronage Trends

The 96 million transit revenue passengers served by Virginia's urban transit systems in 1970 reflected a decrease of 11.6 per cent from 1968, as shown in Table 9. This figure is comparable to the 10.4 per cent decrease in passengers on surface lines in the United States over the same two years.

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1. The "Metro" regional rail rapid transit serving Washington, D. C. and the Virginia and Maryland urbanized areas adjacent to it, is a $3 billion, 98-mile system on which construction began in December, 1969. Thirty miles of the system will serve Fairfax and Arlington counties, and the cities of Alexandria, Falls Church and Fairfax. Groundbreaking ceremonies marking the first construction in Virginia were held in June, 1971.

1. Ibid.
2. There could be, of course, some additional exceptions to the general bus pattern, as for example the potential use for high-speed local rail service of the 24 miles of track of the Norfolk Southern Railway connecting downtown Norfolk with the center of Virginia Beach in a direct straight line immediately south of Virginia Beach Boulevard.

Table 9

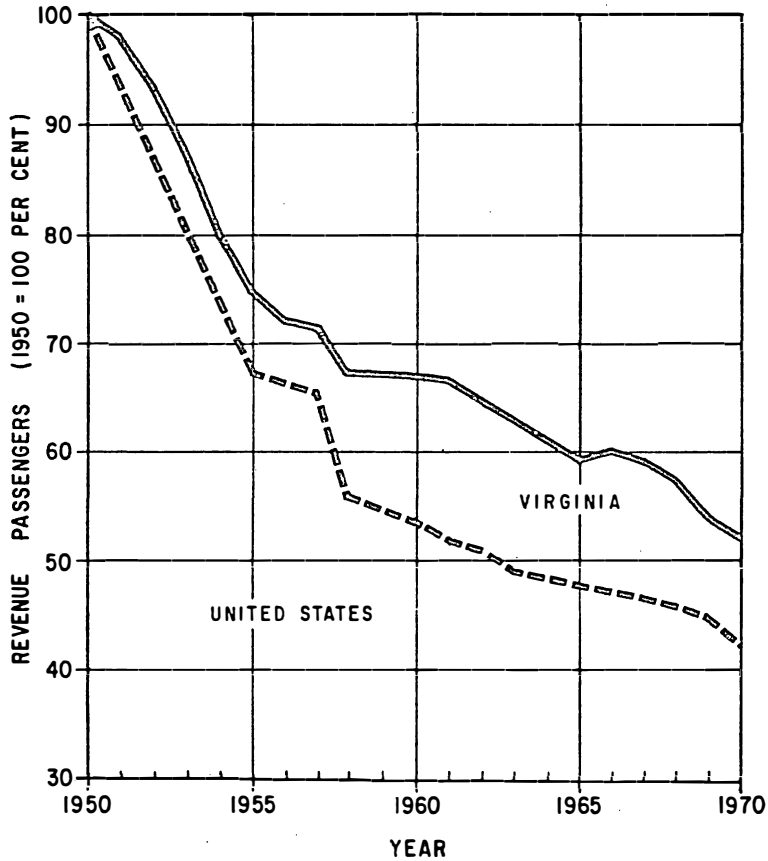
CHANGE IN REVENUE PASSENGERS CARRIED

U. S. Transit Industry and Virginia Metropolitan Areas
1968 and 1970

	REVENUE PASSENGERS			
			Decrease	
	1968 (000)	1970 (000)	Number (000)	Per Cent
U. S. Transit Industry				
Surface Lines	4,864,000	4,358,200	-505,800	-10.4
Rapid Transit	1,627,000	1,573,500	- 53,500	- 3.3
Total	6,491,000	5,931,700	-559,300	- 8.6
Virginia Metropolitan Areas[1]				
Northern Virginia	27,727	23,416	- 4,311	-15.5
Larger Urban Regions[2]	63,654	56,498	- 7,156	-11.2
Smaller Cities	17,363	16,229	- 1,134	- 6.5
Total	108,744	96,143	- 12,601	-11.6

(1) For detail by cities, see Table 10 infra.
(2) Southeastern Virginia, Richmond and Peninsula regions.

Transit riding trends in Virginia have generally paralleled those of the United States transit industry, as shown in Figure 5.



COMPARISON OF NATIONAL AND VIRGINIA TRANSIT RIDING TRENDS

Wilbur Smith and Associates

FIGURE 5

The heaviest rates of patronage loss in Virginia over the past two years were experienced in the Northern, Southeastern and Peninsula regions. Transit usage in Richmond remained constant, and the new Martinsville operation appears to reflect an increase, based on the best available estimate of the number of passengers.

The relative magnitude and volume of business by the operating companies in Virginia and the changes in traffic since 1968 are detailed in Table 10.

Table 10

TRANSIT REVENUE PASSENGERS

Metropolitan Areas of Virginia
1968 and 1970

AREA	REVENUE PASSENGERS 1968 (000)	1970 (000)
Northern Virginia		
1. A. B. & W.	16,522	14,706
2. W. V. & M.	11,205	8,710
Subtotal	27,727	23,416
Southeastern Virginia		
3. Virginia Transit-Norfolk	16,411	14,391
4. Community Bus-Portsmouth	4,313	4,015
5. Carolina Coach-Virginia Beach	819	800 (1)
6. Elizabeth River Tunnel Commission (Public)	2,531	2,183
7. Beach Transport Company-Virginia Beach	250	0 (2)
8. Suffolk City Transit-Suffolk	100	85 (1)
Subtotal	24,474	21,474
Richmond		
9. Virginia Transit-Richmond	26,270	26,300
10. Fairfield Transit (Groome)	357	316
11. West End Transit	250	171
12. Commonwealth Transit	120	120 (1)
13. Bon Air Transit	70	70 (1)
Subtotal	27,067	26,977
Peninsula		
14. Citizens Rapid Transit	12,116	8,019 (3)
15. Hampton Roads Tunnel Bus (Public)	47	28
Subtotal	12,163	8,047
Roanoke		
16. Safety Motor Transit	5,726	5,643
17. Roanoke-Starkey Bus Line	90	50 (1)
18. Pendleton Bus Line	100	100 (1)
Subtotal	5,916	5,793

(1) Estimated.
(2) Company now out of business.
(3) 1969 figure latest available.

Table 10 (Cont'd)

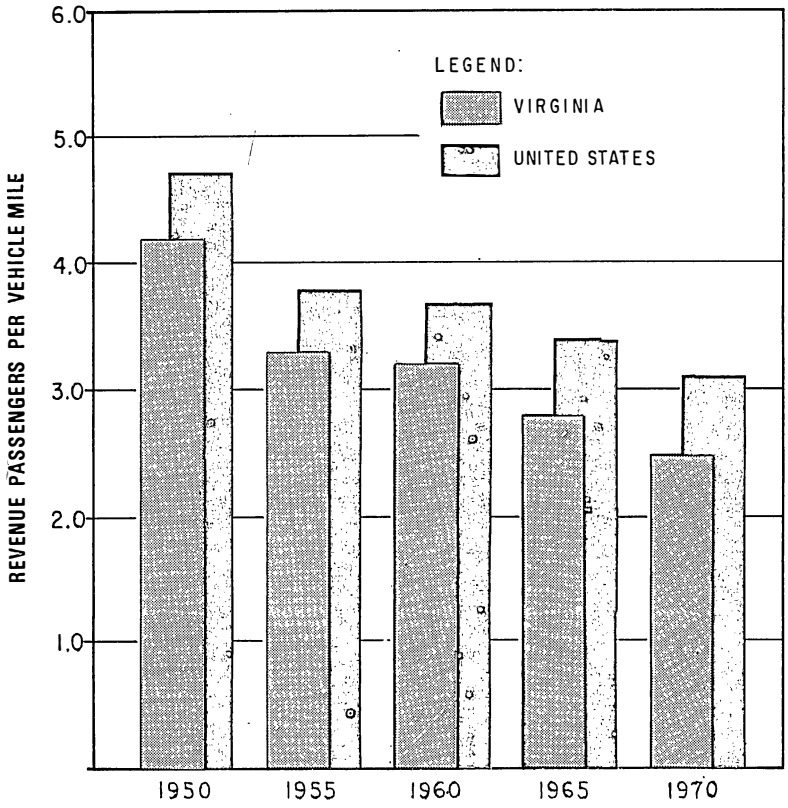
AREA	REVENUE PASSENGERS 1968 (000)	1970 (000)
Lynchburg		
19. Lynchburg Transit	3,494	3,385
Danville		
20. Danville Traction and Power	2,476	2,174
Tri-Cities		
21. Tri-Cities Coaches, Inc.	1,983	1,678
22. Maitland Bros. Bus Line	55	49
23. Hopewell Bus Company	65	0(4)
Subtotal	2,103	1,727
Bristol		
24. City Bus System (Public)	1,000	870(1)
Charlottesville		
25. Yellow Transit Company	1,069	969(1)
Martinsville		
26. City Transit (Public)	550	642(1)
Staunton		
27. Staunton Transit Service (Public)	597	599(1)
28. Quick-Livick Bus Company	86	70
29. Al's Cab Company	72	0(4)
Subtotal	755	699
TOTAL	108,744	96,143

(4) Company no longer operates fixed route service.

Operating Results

Many conditions affect cost and profitability. The density and spatial distribution of population and employment, the strength of the central business district, and the availability and cost of car parking strongly influence the volume and cost of transit service. Richmond, which showed the best profit, has a relatively high population density, a strong central area, and limited suburban routes. Its 4.2 passengers per bus mile enabled it to offer a relatively low fare. All of the Virginia companies showing profit in 1970 were able to achieve 2.5 to 3.0 passengers per mile, while Northern Virginia, with its longer hauls and high peaks, averaged under 2.0 passengers per mile.

Decreasing patronage (particularly in off-peak hours), the dispersal of population into thinly-settled suburbs, and the necessity of maintaining policy headways which often are not justified by the volume of patronage, have resulted in a sharp reduction in the number of passengers per vehicle mile in the United States as well as in Virginia, as shown in Figure 6.



REVENUE PASSENGERS PER VEHICLE MILE
U.S. TRANSIT INDUSTRY AND VIRGINIA TRANSIT SYSTEMS

Wilbur Smith and Associates

FIGURE 6

Cost Factors

Wage rates which are the primary determinant of total transit costs are highest and have experienced the sharpest rate of increase in Northern Virginia, rising by nearly 60 per cent since 1965, as shown in Table 11. The highest rate for operators in this region rose from $2.90 per hour in 1965 to $3.49 per hour in 1968 and $4.54 in 1971. It is already fixed by contract to reach at least $4.90 per hour by 1972.

Table 11

INCREASES IN BUS OPERATORS' WAGE RATES

Selected Virginia Transit System

1968-1971

AREA AND PROPERTY	WAGE RATE IN EFFECT;(1) Jan. 1965	Jan. 1968	Jan. 1971	INCREASE 1965-1971 Amount	Per Cent	MAXIMUM RATE ALREADY FIXED(2) 1971	1972
Northern Virginia							
A. B. & W.	$2.63	$3.16	$4.205	$1.575	59.9	$4.505	$4.585
W. V. & M.	2.90	3.495	4.545	1.645	56.7	4.755	4.905
Southeastern Virginia							
VTC-Norfolk	2.26	2.52	3.29	1.03	45.5	3.37	3.52(3)
Richmond							
VTC-Richmond	2.26	2.62	3.29	1.03	45.5	3.37	3.52(3)
Peninsula CRT-							
Newport News	1.90	2.14	2.63	0.73	38.4	2.60	-
Roanoke							
Safety Motor Transit	1.90	2.07	2.60	0.70	36.8	-	-
Lynchburg							
Lynchburg Transit	1.90	2.07	2.60	0.70	36.8	-	-
Danville							
Danville Traction	1.70	2.00	2.20	0.50	29.4	2.30	-
Bristol							
City Bus	1.35	1.45	1.70	0.35	25.9	-	-
Martinsville							
City Bus	NA	1.65	1.90			-	-

(1) Maximum rate for operators, dollars per hour.
(2) Future increases covered by union contracts; in some cases subject to additional future cost-of-living increases.
(3) $3.77 base rate effective 9/1/73 to 1/1,'74.

In the larger urban areas, the rate of increase in wages has been from 40 to 45 per cent since 1965. In two of the cities in this group, operators' rates advanced from $2.26 per hour in 1965 to the present $3.29 with a base rate of $3.77 fixed to be effective in 1973.

In the third city the increase was from $1.90 to $2.63 per hour. In the smaller cities, wages advanced by 25 to 37 per cent, and range from $1.70 to $2.60 per hour at present.

Peak-hour requirements for operators in combination with conditions specified in labor agreements can produce an even wider disparity than is reflected by the wage rate alone. The effects of productive (platform) hours and operators' pay hours, and the length of work week on earnings are shown in Table 12. Where the differences between productive revenue-producing bus

Table 12

DRIVER COST PER PLATFORM HOUR

Selected Virginia Transit Systems

1971

AREA	AVERAGE WEEKLY HOURS IN REGULAR RUNS			WAGE RATE(2)	WEEKLY PAY (RATE X PAY HOURS)	EFFECTIVE COST PER HOUR (PAY ÷ PLATFORM HRS.)	ANNUAL PAY(3)
	Platform (Productive)	Pay	Ratio Productive To Pay Hours				
Northern Virginia							
A.B.& W.	34.6	42.6	0.81	4.205	$179.13	5.18	$ 9,314
W.V.& M.	35.7	43.0	0.83	4.545	195.35	5.47	10,158
Southeastern							
VTC-Norfolk	43.3	44.3	0.97	3.29	145.75	3.37	7,579
Richmond							
VTC-Richmond	42.6	44.6	0.96	3.29	146.73	3.44	7,630
Roanoke							
Safety Motor	NA	55.0	-	2.60	143.00	-	7,436
Lynchburg							
Lynchburg Transit	51.0	54.0	0.94	2.60	140.40	2.75	7,300
Danville							
Danville Traction	49.0	50.2	0.97	2.20	110.40	2.25	5,740

(1) The figures in this table relate only to regular operators and do not reflect extra men's time and allowances.
(2) January, 1971.
(3) 52 weeks, including paid vacation.

hours and the hours that must be paid to operators in the form of minimum guarantees, overtime, and spread penalties are large, the effective cost per hour is increased. For example, while the W. V. and M. basic wage rate is $1.25 higher than that for Virginia Transit in Richmond, the lower ratio of productive to pay hours results in the effective cost per hour being $2.10 greater.

Financial Results

The 26 urban transit systems had total operating revenues of 29,399,260 in 1970. Although several companies showed a net profit from operations, the losses sustained by the other systems resulted in an aggregate net loss of $642,163 or 2.2 per cent of gross revenue, as shown in Table 13.

Table 13

OPERATING RESULTS

Urban Transit Systems in Virginia

1970

METROPOLITAN AREA AND COMPANY	OPERATING REVENUE	NET INCOME OR (LOSS) Amount	Per Cent of Revenue
Northern Virginia			
A. B. & W.	$ 7,028,667	$(182,497)	(2.6)
W. V. & M.	5,534,866	(377,219)	(6.8)
Subtotal	$12,563,533	$(599,716)	(4.5)
Southeastern Virginia			
Virginia Transit-Norfolk	4,096,275	42,649	1.0
Community Bus-Portsmouth	928,170	(22,875)	(2.5)
Elizabeth River Tunnel	218,840	(67,065)	(30.6)
Carolina Coach-Va. Beach (1)	409,400	7,500	1.8
Subtotal	$ 5,652,685	$(39,791)	(0.7)
Richmond			
Virginia Transit-Richmond	$ 5,688,766	$ 98,511	1.7
Peninsula			
Citizens Rapid Transit(1)	$ 1,703,294	$ 8,792	0.5
Hampton Rds. Bridge-Tunnel	7,623	(23,076)	(302.7)
Subtotal	$ 1,710,917	$(14,284)	(5.9)
Roanoke			
Safety Motor Transit	$ 1,182,575	$(69,787)	(5.9)
Lynchburg			
Lynchburg Transit	$ 751,346	$(43,267)	(5.8)
Danville			
Danville Traction	$ 502,648	$ 29,242	5.8
Tri-Cities			
Tri-Cities Coaches	$ 359,383	$ 15,173	4.2
Bristol			
City Bus System (Public)	$ 206,026	$(37,876)	18.3)

(1) Partially estimated or figures for prior years used in absence of 1970 information.

Table 13 (Cont'd)

METROPOLITAN AREA AND COMPANY	OPERATING REVENUE	NET INCOME OR (LOSS) Amount	Per Cent of Revenue
Charlottesville			
Yellow Transit	$ 206,000	$(14,214)	(6.9)
Martinsville			
City Transit (Public)	$ 101,743	$ 8,332	8.1
Staunton			
Staunton Transit (Public)	$ 75,600	$(8,196)	(10.8)
Subtotal-17 major systems	$29,001,222	$(635,873)	(2.2)
Total - 9 small companies	398,038	(6,290)	(1.6)
TOTAL STATE	$29,399,260	$(642,163)	(2.2)

The two companies serving Northern Virginia sustained the heaviest losses, amounting to $559,716 as shown in Table 14. This results from high

Table 14

NET INCOME OR LOSS BY POPULATION GROUPS AND AREAS

Urban Transit Systems in Virginia

1970

POPULATION GROUP AND METROPOLITAN AREA	OPERATING REVENUE	NET INCOME (LOSS)			
		Loss	Profit	Total	Per Cent Of Revenue
1. Northern Virginia					
Northern Virginia	$12,563,533	(599,716)	-	$(559,716)	(4.5)
2. Larger Urban Areas					
Southeastern Virginia	$ 5,652,685	(39,791)	-	-	-
Richmond	5,688,766	-	98,511	-	-
Peninsula	1,710,917	(14,284)	-	-	-
Subtotal	$13,052,368	(54,075)	98,511	$ 44,436	0.3
3. Other Areas					
Roanoke	$ 1,182,575	(69,787)	-	-	-
Lynchburg	751,346	(43,267)	-	-	-
Danville	502,648	-	29,242	-	-
Tri-Cities	359,383	-	15,173	-	-
Bristol	206,026	(37,876)	-	-	-
Charlottesville	206,000	(14,214)	-	-	-
Martinsville	101,743	-	8,332	-	-
Staunton	75,600	(8,196)	-	-	-
9 small companies	398,038	(6,290)	-	-	-
Subtotal	$ 3,783,359	(179,630)	52,747	$(126,883)	(3.3)
4. TOTAL STATE	$29,399,260	(793,421)	151,258	$(642,163)	(2.2)

wages and low passenger volumes, relative to the large areas served by these companies. The three larger urban areas, with the net earnings in the Richmond area offsetting smaller losses in the Southeastern and Peninsula regions, reflected a net profit of $44,436. The net loss for cities under 200,000 amounted to $126,883, although a few cities reported some net income.

Expressed in terms of gross revenues, the loss amounted to 4.5 per cent of gross revenues and 3.3 per cent in the smaller cities. The net profit in the three larger urban areas was 0.3 per cent of gross revenues.

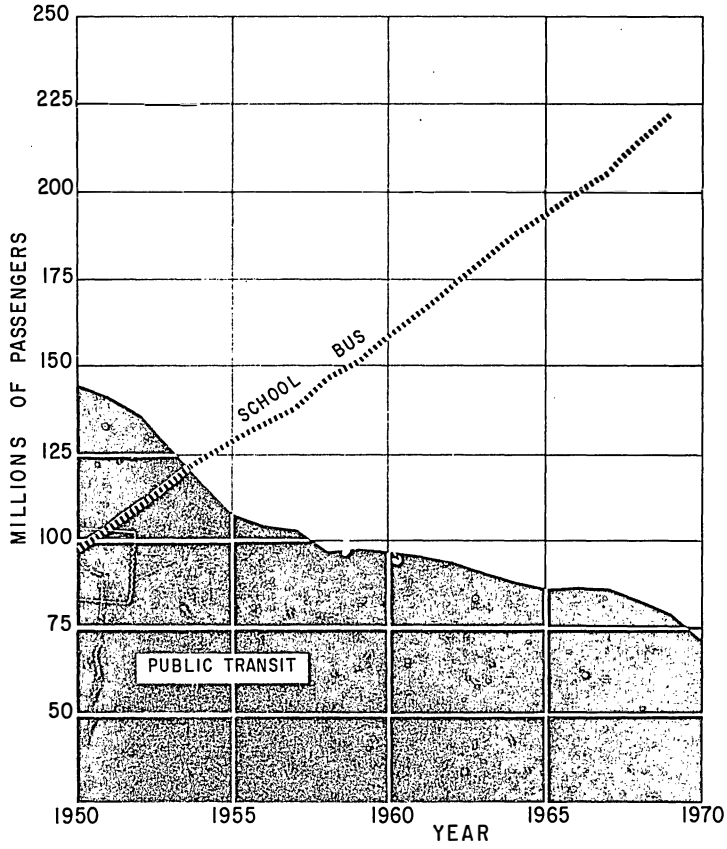
Impact of Fares and Service on Riding

If fares are increased to keep pace with sharply rising costs, they will reach levels which are far less competitive with the cost of private car travel. In the same manner, if service is severely reduced to live within income, transit will become less attractive choice to the urban traveler. Transit systems might become "profitable" on a much smaller scale but would fail to make a substantial contribution to the problems of urban mobility. In more and more cases, fare raises and service reductions appear to reach the point of diminishing returns, both financially and in terms of keeping transit usage at desirable and useful levels. Thus, there is a need to carefully evaluate the approach to the increasingly critical position of public transit in Virginia's urban areas.

Chapter 4

SCHOOL BUS SERVICE

The transportation of students to and from school is a major part of the total passenger transportation services provided in Virginia. Contrary to the trends for adult transit passengers, the number of school passengers is increasing each year, both on free buses operated by school authorities and on regular and special services provided by urban transit systems, generally at substantially reduced fares. The trends of passengers carried by urban transit lines (including fare-paying students) and on free school buses are shown in Figure 7.



TRENDS IN PASSENGERS CARRIED BY URBAN TRANSIT SYSTEMS AND FREE SCHOOL BUSES, VIRGINIA

Wilbur Smith and Associates

School Service on Urban Transit Systems

Until recent years students in urban areas used the regular city transit lines. Most pupils lived within walking distance of school and only a limited number required transportation. Since relatively little additional cost to the transit system was involved, the practice of transporting students at a cheaper fare than the regular rate was developed. As adult fares had to be increased, there were pressures for retaining the same low school fare. As a result, school fares are generally half, or less, of the adult rate for comparable journeys. Since the student's fare was paid by his parents, there was no cost to local or state government, and the free transportation of students was primarily in rural areas where there was no public transit service.

A number of changes in recent years have completely altered the dimensions and significance of pupil transportation needs within urban areas, and further expansion of vehicular transportation for students appears imminent. School districts have become larger in area with consolidation of schools and shifts of population to low-density suburban areas. Consequently, fewer students live within walking distance of their schools and their dependence on vehicular transportation has greatly increased. Concurrently, mounting traffic congestion on city streets and lack of sidewalks in some suburbs create hazards for many children walking to school, and increased demands for bus transportation. In many cases these conditions have reached the point of requiring substantial numbers of additional bus trips to accommodate students on regular lines, as well as the scheduling of additional special buses used only for school travel.

The assignment of pupils to schools distant from their homes as a means of achieving racial balance further increases the magnitude and complexity of pupil transportation in urban areas. Initial steps in this direction have been met in some Virginia cities by the use of older surplus buses already owned by the transit system, and staggering of school hours to permit multiple use of bus and driver. These expedients have obvious limitations both as to capital funds for more buses and labor costs for drivers as the number of students to be transported increases.

The increase in school riding which has already taken place has had a mixed effect on local transit companies in Virginia. As long as most students can be accommodated on regular services, school transportation augments transit revenues without incurring offsetting expenses. The basic problem is the peak-hour, single-direction movement requiring both bus and driver for only a few hours each day. Where school travel distances are short and school hours can be staggered enough to permit each bus to make several school trips, operating costs and capital requirements can be kept within feasible limits.

As a practical matter, it appears that the present levels of school riding, within the limits of available buses and reasonably productive utilization of drivers' time, is generally profitable to the transit system. However, if school riding is doubled or tripled, it will be beyond the financial capability of most transit systems to invest in the large number of additional buses needed, the employment of additional drivers becomes a problem, and it is doubtful that the operation could be made financially practical. For example, the Roanoke system now carries about 4,300 student passengers per day. While this requires the operation of some additional buses, older and fully-depreciated vehicles are used and the school fares represent a profitable addition to system revenue. However, when this number is increased to 10,000 students, the company would have to acquire a large number of buses for which there would be no use other than the school trips. In addition, there are obvious problems in getting drivers on a part-time basis. Where union contracts require a minimum daily or weekly pay, labor costs as well as capital investment can become prohibitive.

The lower capital and labor costs and the full tax exemptions associated with conventional publicly-owned school bus transportation, as well as the assured full loading on each trip, make it possible for school districts to provide the service at a lower cost per pupil than can be done by transit companies. In addition, a state subsidy of approximately 45 per cent of operating costs is available for free student transportation if prescribed types of buses are purchased, thus further reducing the local school district's outlay. When the volume of pupil transportation begins to exceed that which can be accommodated by the transit company with fares paid by the parents, the move to publicly-owned free school buses becomes the next cheapest solution of the problem as far as the school district is concerned. Since the provision of free transportation to some students will lead to demands for free transportation for *all* students, the loss of the profitable part of student patronage, which could have serious financial impacts on transit systems, is a distinct possibility.

Free School Bus Service

The provision of transportation for students by school districts at public expense had its origin in rural areas where there was no public transportation and distances to school were considerably greater than in cities.

In many states, free student transportation is not provided within cities or urban areas. This is not the case in Virginia, where there is no distinction between school services furnished by school authorities in urban and rural areas. The decision is left to the local school district and eligibility for state aid is automatic.

Free school bus service is provided throughout the state by 6,808 school buses, practically all of which are owned by school districts. In the 1969-70 school year the Commonwealth paid $9.1 million or 47 per cent of the $19.6 million operating cost of school bus service. The state appropriation for the school year 1971-72 is $10.8 million. As shown in Table 15, the current state appropriation for this purpose is nearly $3 million greater than in 1968.

Table 15

COST OF FREE PUPIL TRANSPORTATION SERVICE
AND STATE REIMBURSEMENT TO LOCAL SCHOOL UNITS

Commonwealth of Virginia
1950-1972

FISCAL YEAR ENDING JUNE 30	TOTAL NET COST OF PUPIL TRANSPORTATION (1)	REIMBURSEMENT BY COMMONWEALTH	
		Amount	Per Cent of Cost
1950	$ 4,445,232	$ 3,600,000	81.0
1951	5,007,961	3,700,000	73.9
1952	5,393,348	3,850,000	71.4
1953	5,810,453	4,000,000	68.8
1954	6,279,533	4,150,000	66.1

(1) Total operating cost less gas tax refund; excludes capital additions.
SOURCE: Pupil Transportation Division, State Board of Education.
NA = Not Available

Table 15 Cont'd

COST OF FREE PUPIL TRANSPORTATION SERVICE
AND STATE REIMBURSEMENT TO LOCAL SCHOOL UNITS

Commonwealth of Virginia
1950-1972

FISCAL YEAR ENDING JUNE 30	TOTAL NET COST OF PUPIL TRANSPORTATION (1)	REIMBURSEMENT BY COMMONWEALTH	
		Amount	Per Cent of Cost
1955	6,519,416	4,320,000	66.3
1956	6,824,974	4,500,000	65.9
1957	7,318,885	4,895,145	66.9
1958	7,718,338	5,035,145	65.2
1959	8,156,383	5,222,280	64.0
1960	8,495,210	5,367,075	63.2
1961	9,203,202	5,705,800	62.0
1962	9,781,519	5,891,500	60.2
1963	10,515,411	6,533,430	62.1
1964	11,205,593	6,762,670	60.4
1965	12,050,785	7,187,450	59.6
1966	12,796,363	7,431,750	58.1
1967	14,410,405	7,691,700	53.4
1968	15,447,463	7,960,910	51.5
1969	17,637,364	8,747,135	49.6
1970	19,632,047	9,140,460	46.6
1971	NA	10,076,275	-
1972	NA	10,796,205	-

(1) Total operating cost less gas tax refund; excludes capital additions.

SOURCE: Pupil Transportation Division, State Board of Education.
NA = Not Available

Present policy encourages public ownership and operation as the most economical and efficient means of school bus transportation. The regulations provide for state reimbursement of part of school bus operating costs only if the school district operates a special type of yellow bus equipped with flashing lights and specified signs and markings. These are designed to alert all road traffic when the school bus stops to pick up or discharge pupils. These procedures are designed for operation in rural areas and have little applicability to school trips within urban areas.

Proportion of Students Transported—A total of 618,960 or 55 per cent of the state's 1,128,921 enrolled students were transported by free school buses, as shown in Table 16. Over 323,800 of the students transported attended schools in the cities, towns and counties of the 12 metropolitan areas, amounting to 44 per cent of the enrolled students in those areas. Outside of the metropolitan areas nearly 296,000 students—75 per cent of those enrolled—were provided free transportation.

Table 16

PUPILS TRANSPORTED FREE BY SCHOOL BUS
IN RELATION TO TOTAL PUPIL ENROLLMENT

Commonwealth of Virginia
School Year 1969-70

AREA	NUMBER OF PUPILS ENROLLED (1)	PUPILS TRANSPORTED FREE BY SCHOOL BUS	
		Number	Per Cent of Enrollment
Northern Virginia			
Alexandria City	19,353	1,213	6.2
Falls Church City	2,196	282	12.9
Arlington County	27,279	9,600	35.2
Fairfax County	137,758	79,289	57.5
Total	186,586	90,384	48.7
Southeastern Virginia			
Norfolk City	61,208	558	0.9
Portsmouth City	27,803	2,674	9.6
Chesapeake City	25,903	17,205	66.4
Virginia Beach City	47,147	36,772	78.0
Nansemond County	10,014	7,034	70.0
Total	172,075	64,243	37.3
Richmond			
Richmond City	44,454	1,017	2.3
Henrico County	35,012	22,484	64.2
Chesterfield County	32,933	24,715	75.4
Total	112,399	48,216	42.9
Peninsula			
Hampton City	34,490	6,859	19.9
Newport News City	33,820	22,125	65.7
Poquoson Town	1,470	1,170	79.1
York County	8,737	7,132	85.0
Total	78,517	37,286	47.5
Roanoke			
Roanoke City	20,714	0	-
Roanoke County	21,826	17,563	80.4
Total	42,540	17,563	41.3
Lynchburg			
Lynchburg City	12,431	0	-
Bedford County	8,180	7,048	86.2
Total	20,611	7,048	34.2
Danville			
Danville City	10,658	0	-
Pittsylvania County	15,889	13,133	82.7
Total	26,547	13,133	49.5
Tri-Cities			
Petersburg	9,106	0	-
Colonial Heights City	3,789	0	-
Hopewell City	5,688	0	-
Prince George County	6,362	5,136	80.7
Dinwiddie County	5,544	4,751	85.7
Total	30,489	9,887	32.4

Table 16 (Cont'd)

AREA	NUMBER OF PUPILS ENROLLED[1]	PUPILS TRANSPORTED FREE BY SCHOOL BUS	
		Number	Per Cent Of Enrollment
Bristol			
Bristol City	3,661	0	-
Abingdon Town	1,042	777	74.6
Washington County	9,076	7,655	84.3
Total	13,779	8,432	61.2
Charlottesville			
Charlottesville City	7,539	0	-
Albermarle County	8,442	7,139	84.6
Total	15,981	7,139	44.7
Martinsville			
Martinsville City	4,867	0	-
Henry County	13,137	10,785	82.1
Total	18,004	10,785	59.9
Staunton			
Staunton City	4,873	0	-
Waynesboro City	4,378	0	-
Augusta County	10,591	9,259	87.4
Total	19,842	9,259	46.7
TOTAL 12 Metropolitan Areas	737,370	323,375[2]	43.9
TOTAL Outside Metropolitan Areas	391,551	295,585	75.4
STATE TOTAL	1,128,921	618,960	54.9

(1) Regular day schools only; includes elementary and secondary.

(2) Excludes 484 pupils for whom transportation by public carrier is paid or for whom direct payments of money in lieu of school transportation were made.

SOURCE: Table 52, 1969-70 Annual Report, Superintendent of Public Instruction.

In the three principal metropolitan area groups the proportion of enrolled pupils furnished free school bus transportation was as follows:

Northern Virginia—90,384 or 49 per cent of the total

Larger urban areas—149,745 or 41 per cent of the total

Smaller urban areas—83,246 or 44 per cent of the total

Free Pupil Transportation in Metropolitan Areas—The cost of operating the 3,028 school buses used to transport 323,375 pupils in the 12 metropolitan areas is $10.9 million per year, or $33.72 per pupil per school year as shown in Table 17. Based on a normal school year of 180 days, this number of pupils represents the equivalent of 116.6 million revenue passengers. Thus, the cost per pupil per trip, or "average fare," is 9.3 cents.

Table 17

FREE PUPIL TRANSPORTATION IN
METROPOLITAN AREAS OF VIRGINIA

School Year 1969-70

AREA	NUMBER OF SCHOOL BUSES	NUMBER OF PUPILS TRANSPORTED(1)	OPERATING COST(2)
Northern Virginia			
Alexandria City	11	1,213	$ 45,829
Falls Church City	3	282	15,520
Arlington County	70	9,600	471,293
Fairfax County	608	79,289	2,270,858
Arlington County(3)	-	NA	272
Alexandria City(3)	-	NA	26,712
Total	692	90,384	$2,830,484
Southeastern Virginia			
Norfolk City	5	558	0(5)
Portsmouth City	22	2,674	113,543
Chesapeake City	140	17,205	405,943
Virginia Beach City	256	36,772	755,521
Norfolk City(3)	-	213	5,500
Norfolk City(4)	-	127	19,565
Virginia Beach City(4)	-	1	250
Nansemond County	86	7,034	195,859
Total	509	64,584	$1,496,181
Richmond	14	1,017	84,102
Richmond City	-	NA	1,610
Richmond City	199	22,484	576,975
Henrico County	228	24,715	627,659
Chesterfield County	-	124	10,888
Henrico County(4)	441	48,340	$1,301,234
Total			
Peninsula			
Hampton City	64	6,859	191,610
Newport News City	221	22,125	570,978
Poquoson Town	16	1,170	32,785
Poquoson Town(4)	-	NA	95
York County	88	7,132	220,853
Total	389	37,286	$1,016,321
Roanoke			
Roanoke City(3)	-	NA	72,987
Roanoke County	130	17,563	402,303
Total	130	17,563	$ 475,290

(1) For comparison with total number of students enrolled see Table 16.
(2) Total operating cost less gas tax refund; excludes capital costs of $3,841,884.
(3) Transportation by public carrier.
(4) Direct payment of money in lieu of school bus transportation.
(5) Capital outlay only.

Table 17 (Cont'd)

AREA	NUMBER OF SCHOOL BUSES	NUMBER OF PUPILS TRANSPORTED(1)	OPERATING COST(2)
Lynchburg			
Lynchburg City(3)	-	NA	25,745
Bedford County	100	7,047	242,654
Bedford County(4)	-	1	143
Total	100	7,048	$ 268,542
Danville			
Pittsylvania County	191	13,085	1,884,960
Pittsylvania County(6)	1	48	6,120
Total	192	13,133	$1,891,080
Tri-Cities			
Petersburg City	0	0	0
Colonial Heights City	-	NA	1,216
Hopewell City(3)	-	NA	25,745
Prince George County	70	5,136	212,741
Dinwiddie County	86	4,751	193,783
Dinwiddie County(4)	-	12	2,273
Total	156	9,899	$ 435,758
Bristol			
Bristol City	0	0	0
Abingdon Town	3	777	11,307
Washington County	78	7,655	238,731
Total	81	8,432	$ 250,038
Charlottesville			
Charlottesville City(4)	-	NA	9,505
Albermarle County	107	7,139	312,967
Total	107	7,139	$ 322,472
Martinsville			
Martinsville City(3)	-	NA	8,703
Henry County	120	10,718	353,198
Henry County(6)	1	67	3,500
Henry County(4)	-	7	811
Total	121	10,792	$ 366,212
Staunton			
Staunton City(3)	-	NA	2,730
Waynesboro City(3)	-	NA	6,200
Augusta County	110	9,259	259,088
Total	110	9,259	$ 268,018
Total Metropolitan Areas	3,028	323,859	$10,921,630
Total - Outside Metropolitan Areas	3,780	296,113	8,958,509
Total State	6,808	619,972	$19,880,139

(6) Contract carrier.
(7) Detail by type of free school bus service provided.

Table 17 (Cont'd)

	BUSES	PUPILS	COST
96 Counties (Publicly-Owned & Contract)	6,029	524,792	$17,353,536
4 Towns (Publicly-Owned)	25	2,674	55,861
12 Cities (Publicly-Owned)	754	91,494	2,222,649
Public Carrier (4 Counties, 13 Cities)	-	372	176,138
Direct in lieu (23 Counties 4 towns or cities)	-	640	71,955
Total	6,808	619,972	$19,880,139

SOURCE: Annual Report of Superintendent of Public Instruction, 1969-70.

There is no restriction on providing school transportation within cities and urbanized areas, and state reimbursement is payable for this purpose. Extensive free transportation is provided in some cities, and very little or none at all in others. In many of the larger cities, most of the school transportation is provided by the local transit system, generally at fares one half or less than the regular adult rate. In some cases 25 to 45 per cent of the transit companies' buses are engaged wholly in making school trips.

Relationship of Transit and School Service—Annual school journeys in the metropolitan areas exceed those on public transit vehicles and constitute 55 per cent of the total as shown in Table 18. In the Northern Virginia region the 32.4 million annual school journeys exceed the 23.4 million transit passengers, and in the smaller urban areas the school travel is double the transit volume. In the three urban areas of Southeastern Virginia, Peninsula and Richmond, the 54.1 million school riders compare to than the 56.5 million transit patrons, reflecting the greater dependence on transit for school transportation that has prevailed in most of the cities in this group. The number of school buses is nearly twice the number of transit buses. School buses average 8,500 miles per year as compared with about 24,500 miles for urban transit buses.

Table 18

URBAN TRANSIT AND SCHOOL TRANSPORTATION
Metropolitan Areas of Virginia
1970

ITEM	URBAN TRANSIT	SCHOOL BUSES IN METROPOLITAN AREAS	TOTAL
Passenger Journeys[1]	96,143,000	116,415,000	212,558,000
Per Bus Mile	2.58	4.51	3.37
Bus Miles	37,268,000	25,793,000	63,061,000
Expense Per Bus Mile (cents)	80.6	43.3	64.3
Number of Buses Owned	1,517	3,028	4,545
Average Miles Per Bus	24,567	8,518	13,874
Approximate Original Cost of Buses[2]	$45,510,000	$24,224,000	$69,734,000

(1) Equivalent to transit revenue passengers.
(2) Estimated at $30,000 average cost of transit buses and $8,000 average for school buses.

School buses are operated only at times pupils are riding to and from school, and do not have to provide service during midday and evening periods when there is little traffic. In addition, school buses are operated by part-time drivers, who generally earn substantially less per hour than transit bus operators, and are paid only for the hours they work. In consequence, the cost per mile for school bus operations is 43 cents contrasted with 80 cents per mile for transit.

Expenditures for Urban Transit and School Bus Transportation—The total annual operating costs of providing urban transit and school bus service throughout the Commonwealth is $49.9 million, as shown in Table 19. Since only transit buses have offsetting revenues, the combined deficit amounts to $20.5 million. Of this amount $9.2 million is met by the Commonwealth, $10.8 million by local governments, and $514,282 represents the losses sustained by privately-owned transit companies.

Table 19

EXPENDITURES FOR URBAN TRANSIT AND SCHOOL BUS TRANSPORTATION
Commonwealth of Virginia
1970

ITEM	URBAN TRANSIT	SCHOOL BUSES	COMBINED TOTAL
Operating Revenue	$29,399,260	0	$29,399,260
Operating Expenses[1]	30,041,423	19,880,139[2]	49,921,562
Net Deficiency	$(642,163)	$(19,880,139)	$(20,522,302)
Source of Funds to Meet Deficiency:			
1. State government	$ 90,141[3]	$ 9,140,460	$ 9,230,601
2. Local government	37,740[4]	10,739,679	10,777,419
3. Private bus companies	514,282	0	514,282
Total	$ 642,163	$19,880,139[2]	$20,522,302

(1) Excludes capital expenditures.
(2) $10,921,630 or 55 per cent of this amount expended in the counties, towns, and cities comprising the 12 metropolitan areas.
(3) Tunnel bus services in Hampton Roads area operated by State Department of Highways.
(4) Three publicly owned transit systems.

Regulation and Control of School Buses—The State Board of Education exercises effective control over the safety, adequacy, and efficiency of local school bus services through its Pupil Transportation Division. The proper design of school bus routes to eliminate excess mileage and provide adequate coverage is prescribed, and assistance of departmental staff is available. The amount of state reimbursement of school bus operating costs is based on a three-point formula which gives weight to the number of pupil transported, the number of buses in daily use, and the bus miles run.

Reports—Detailed reports of operating expense by accounts, number of pupils transported, bus miles run, and equipment are filed with, audited and reviewed by the Pupil Transportation Division. The filing of such reports is made a condition of receiving state reimbursement funds.

Quality of Statewide Information—The quality, detail, and *ready availability* of uniform and meaningful information on school bus services helps to ensure efficient operation in each local community and forms a sound basis for decision and control of state appropriations for reimbursement. *It suggests the need for information of similar quality in respect to urban transit operations.*

Coordination of School Buses and Urban Transit

School transportation offers a useful supplement to transit system revenues only to the extent that large numbers of additional buses are not required, and students can be handled largely on regular services. School and urban transit peaks usually coincide, except where authorities stagger school hours to permit better utilization of equipment, as has been done in several Virginia cities.

Local transit systems, however, are not in a position to provide buses and drivers to accommodate the much more extensive busing of students in urban areas which is now taking place. The lower costs of providing school transport with cheaper school-owned body-on-chassis buses works against major expansion of this service by transit companies, as they could not profitably provide the service at the average cost of less than 10 cents per pupil-trip which the publicly-owned school buses incur. The loss of present school riding would reduce the gross volume of transit business, and its net income potentials.

An additional practical complication is the probable unwillingness of parents to pay for urban school travel when other pupils are being transported free in increasing numbers.

Every effort should be made to maintain as much school travel by transit bus as possible and to expand the present limited practice of making payments for travel by students on public buses in certain cases. However, the consolidation of school and public transit does not appear to be appropriate, as long as the current operating cost differentials prevail.

Reimbursement for School Transportation by Transit Lines—There appears to be no reason that local school authorities in urban areas should not be made eligible for reimbursement of school transportation costs incurred under appropriate arrangement with local transit systems. The requirement to use a particular type of bus for school transport in urban areas should be removed.

Chapter 5

FRANCHISES, REGULATION, AND LEGAL ASPECTS

The basic regulation and control of urban transit systems in Virginia is exercised by the city or town in which the company operates. This jurisdiction, however, ends at the municipal limits. Operations beyond that point come under the jurisdiction of the State Corporation Commission. Thus, for a transit operation which extends beyond the boundaries of a single city or town, control is fragmented between two or more governmental units, each exercising authority over only parts of what is in fact a single transport system. There is no single government agency with jurisdiction over the entire operations of a multi-jurisdictional transit system, as in the case of state public service commissions in some states; nor can the jurisdiction of a city be extended beyond its limits, as in other states.

Franchises

The concept of a municipal franchise for transit operations arises from the power of cities and towns to control the right to sue their streets, bridges, and public ways. In its historical origin the municipal transit franchise was a grant to horsecar and later electric street railway companies to construct tracks in public streets and erect poles and wires along the roadway. Such franchises conferred a valuable right to use the public streets for the conduct of a profitable private business and at the same time provided the public with what was then the most practical means of urban travel.

As the city then generally encompassed the whole built-up area, few extra-jurisdictional problems arose and the city was the logical governmental jurisdiction.

Street railway franchises generally contained specific provisions as to the fares to be charged, the levels of service to be provided, and the maintenance of the roadway around its tracks. They usually required the payment of a fee or tax to the city as compensation for the right to use the streets.

With the advent of the widespread use of private automobiles, growing urban populations spilled beyond municipal boundaries into adjacent counties or cities. At the same time, the motor bus replaced the street car. Thus, the municipal franchise today controls a completely different type of transit system, operating under wholly different conditions from those in which it had its origin.

Changing Objectives—Historically, the purpose of the franchise was to ensure adequate service at reasonable cost to the public, provide compensation to the city for the privilege of using public streets, and to prevent the holder of the franchise from making an excessive profit. Today the motor bus represents a relatively small use of the public streets; increasing costs and diminishing patronage have made it difficult for transit companies to earn an adequate return on their investment, and the franchise right in many cases has become a liability.

Municipal Franchises in Virginia—The franchises under which private transportation companies operate in Virginia vary greatly in scope, terms, and complexity. The more comprehensive franchises cover routes, fares, schedules, operating methods, accounting procedures, taxes, equipment, and almost every aspect of the operation. Other franchises are narrower in scope, covering only routes, fares, and service schedules. In only a few instances are operating and

financial reports required to be filed regularly, so that information on the transit system tends to be limited to that gained from exhibits filed periodically with applications for increases in fares.

Limitations on Franchise Grants—The power of municipalities to grant franchises is not without limitation. The Commonwealth reserves the right to see that rates are reasonable. The Virginia Constitution, Section 164 (1902), provided that the right of the Commonwealth to regulate common carriers and public service corporations should never be abridged. This section represents a variant statement of the principle that the police power of the State shall never be abridged. It is now incorporated in the 1971 Constitution as Article IX, Section 6.

Advantages and Disadvantages—Where most of the urban population is within the jurisdiction of a single city, the municipal franchise affords workable local control over local service. An incidental effect of the single-city franchise concept works to the financial advantage of the transit company by encouraging the restriction of its services to the city. Since the city generally has a more compact population, this gives the transit operator the advantage of serving the most profitable areas and avoiding thinly-settled suburban sections on likely to be profitable or self-supporting.

Municipally-Owned Transit Systems

While Virginia's transit service is predominantly provided by privately-owned companies operating under franchise, three cities have exercised the right to provide public transportation to its residents as a public function. In each case the establishment of the publicly-owned service followed discontinuance of operations by the previously franchised private company.

A city-owned and operated transit service was instituted by the City of Staunton in 1947. This is a direct city operation under a superintendent of public transportation, who is also responsible for parking meter collections, traffic sign erection, and other traffic functions. This arrangement provides work for bus drivers in off-peak periods, thus producing a more effective use of city employees.

In 1965, the City of Bristol, Virginia, acting jointly with the City of Bristol, Tennessee, formed the publicly-owned and operated transit system now serving the two cities. The transit operation is directed by two city officials, one from each city, and a salaried employee who acts as manager. The two cities make up the deficit in operating expenses from general funds, based on the proportion of route mileage in each city.

The third municipally-owned system is that of the City of Martinsville. It is operated under contract by a private firm which is also engaged in the trucking business. Since its inception in 1967, this operation has been able to earn a small profit, which is returned to the city.

Although not included in the metropolitan areas, the City of Winchester also operates a municipal bus service and meets operating deficits from general funds.

Multi-Jurisdictional Urban Areas

Neither private company franchise operations nor municipal ownership of transit present any problem where service is required only within the municipal boundaries. Difficulties arise where population growth has created a single urbanized area extending into two or more cities, towns, or counties. The jurisdictional and functional problems created by this condition impinge on many aspects or urban public services, of which transit is one.

Transportation District Act of 1964

To provide a mechanism for coordinated areawide public transit service in multiple political jurisdictions, the General Assembly of Virginia enacted the *Transportation District Act of 1964*. This authorizes any two or more counties or cities, or combination thereof, to constitute a transportation district for the purpose of providing transit service. The transportation district is created by ordinances of the participating counties and cities, which fix the boundaries of the district. The transportation district thus created is a body corporate exercising usual corporate powers as well as the specific powers granted by the act.

A commission is created under the act to manage and control the functions, affairs, and property of the district corporation. The commission consists of an agreed number of persons appointed by the governing body of each participating county and city from among its members, who serve at the will and pleasure of the appointing body. Members of the commission receive no salary but are entitled to their expenses and to per diem pay for time spent on official duty.

Governmental Function—The act provides that any function carried out by the transportation district is in all respects to the benefit of the people of the State and is a public purpose, and that the members of the commission controlling the district perform an essential governmental function in the exercise of the powers conferred on it. Accordingly, the transportation district is exempted from the payment of all taxes and assessments on any property acquired by it or under its jurisdiction, control, possession, or supervision. The operation and maintenance of transportation facilities and the revenues therefrom, as well as the property and income derived from it, is also exempted from all state, municipal, and local taxation.

Intrastate Districts—Where the transportation district is located within a metropolitan area and contiguous territory wholly within the Commonwealth of Virginia, the transit district commission is required to prepare a transportation plan for the district in accordance with planning processes and procedures detailed in the act. Upon the adoption of such transportation plan, the commission is authorized to (a) construct, or acquire by purchase or lease, the transit facilities specified in the plan, and (b) enter into agreements or leases with private companies for the operation of its facilities. The Commission is specifically prohibited from operating any such facilities unless, upon application, the State Corporation Commission finds that the transit commission has been unable to execute a lease or agreement with any private company on terms compatible with the public interest and that the operation of such facilities is required by the public convenience and necessity.

A private company operating transit services under agreements with a transportation district remains fully subject to the jurisdiction of the State Corporation Commission.

Interstate Transportation Districts—When the transportation district is located within a metropolitan area which also includes territory within another state or states contiguous to Virginia, the transportation planning is done in collaboration with the planning processes for the whole metropolitan area.

When the transportation plan is adopted, the commission may enter into contracts or agreements with an agency authorized by the General Assembly of Virginia to plan for or provide transportation facilities and service. Such contracts provide for contribution to the capital required for the construction or acquisition of transportation facilities and for meeting expenses and obligations incurred in the operations of the facilities. The obligation of the transportation district under such agreements must be based on and supported by contracts

between the transportation district and its component counties and cities in Virginia.

The Commission may also enter into contracts or agreements with the counties and cities in the transportation district to provide or cause to be provided transportation facilities and service to cities and counties.

Powers and Duties of Counties and Municipalities

Counties and cities embraced in a transportation district are *authorized* to enter into contracts with the commission for the transportation district to (a) provide the transportation facilities specified in an adopted transportation plan, and (b) render transportation service. Obligations arising from such contracts are declared to be for a public purpose and may be paid for, in the discretion of each county or city, in whole or in part by appropriations from general revenues or from the proceeds of a bond issue or issues. Governing bodies of counties and cities participating in the transportation district are also authorized to appropriate funds for the administrative expenses of the commission.

Acquisition of Right-of-Way for Transit—When the commission for the transportation district, the State Highway Commission, and the governing bodies of the component governments determine that it is necessary to acquire median strips in any Interstate highway for transit facilities, the cities and counties within the district are authorized to pay to the State Highway Commission an agreed amount to provide it with the necessary matching funds to acquire the median strip.

Control Over Commission—The Transportation District Act of 1964 provides the mechanism for two or more cities, acting in concert with each other and with contiguous counties, to provide transit service in a multi-jurisdictional urbanized area in the same manner a single city could do if the urban area lies wholly within the one jurisdiction. A transportation district and its governing commission is in effect a joint agent of the constituent counties and cities in the same manner that a transit commission appointed by a single city is an agency of that city.

The component governments of a transportation district make the initial decision as to whether the district should be created; they are represented on the district commission by members appointed from their own group; and they can change its membership at will. In addition, the transportation district is wholly dependent upon the component governments for financial support.

Several state agencies also exercise significant control in specific areas of the transit district's activities. The act requires that financial accounts and records be transmitted to the Governor, who has the power to specify the frequency and content of these records and reports. The State Corporation Commission has jurisdiction over any private company operating facilities itself.

The Chairman of the State Highway Commission or his designee is a member, ex officio, of the commission of any transportation district. The planning provisions of the act require that the State Highway Commission be advised of plans, policies, and actions requiring its consideration, and it has the power to appoint members from its own staff to technical committees authorized under the act.

State courts have jurisdiction under the act over contracts between local governments and the transportation district commission.

Limitations on Creation of a Present Debt

Restrictions on debts which local governments may incur are contained in

Virginia Constitution, Sections 115-a, 127 (1902), now embodied in Virginia Constitution, Article VII, Section 10 (1971). State debts were restricted by Virginia Constitution, Sections 184, 184-a (1902), which has been changed and is now embodied in Virginia Constitution, Article X, Section 9 (1971). In addition, there is a restriction on the use of the Commonwealth's credit, formerly found in Virginia Constitution, Section 185 (1902), now Virginia Constitution Article X, Section 10 (1971), with an addition to permit the General Assembly to establish "an authority with power to insure and guarantee loans to finance industrial development and industrial expansion. . ."

The latest in a long series of cases construing the debt and credit clauses of the 1902 Constitution are companion cases, *Board of Supervisors v. Massey*, 210 Va. 253, 169 S.E. 2d 556 (1969), and *Board of Supervisors v. Massey*, 210 Va. 680, 173 S.E.2d 869 (1970). These concerned the constitutionality of the action of Fairfax County and the City of Falls Church entering into a "Transit Service Agreement" with the Washington Metropolitan Area Transit Authority and other public bodies.

In its 1969 opinion, the Supreme Court of Appeals of Virginia said that the agreement obligated the County and the City to underwrite and guarantee a proportionate share of an unknown "operating expense" deficit of the transit system, and this obligation, being fixed and absolute, constituted a present debt within the meaning of the constitutional limitations on County and City debt.

However, despite finding the threshold constitutional violation, the Court went on to find that the Authority was created by compact to solve the transportation needs of Northern Virginia and the entire Washington, D.C., metropolitan area. Thus it found that the Authority was exercising a governmental function for public purposes. Prior opinions had found no violation of the credit clause through payments by the Commonwealth and a locality to aid an authority in exercising its governmental function. This is true even though others might incidentally profit from the operation, financing, and use of a facility established by the Authority.

The agreements as to financing the transit system were basically changed prior to the second or 1970 opinion. The County and the City were to pay only for transit services actually provided. This, the Court found, was a service contract, and, as such, immune from the local debt prohibitions of the Virginia Constitution. The rule applied to service contracts recognized that a commitment for services to be paid for only after the services are rendered is not a commitment for debt or indebtedness within the meaning of constitutional limitations or prohibitions, but rather a commitment to honor each year the account payable incurred for services rendered that year.

The opinion emphasized that the agreements were for an essential public service for the benefit of their residents; that the obligations of the County and the City to pay for the transit service were conditioned upon the service being rendered; and that their obligations were to pay over a period of years as service was rendered. While the language has been changed, it is not believed that the provisions of the 1970 Constitution adversely affect this holding.

Northern Virginia Transportation Commission

The Northern Virginia Transportation Commission is the only district thus far created under the provisions of the act. This commission was created under the interstate provisions of the Transportation District Act of 1964 by another act of the General Assembly approved on the same date. The Northern Virginia Transportation Commission consists of four members from Fairfax County, three from Arlington County, two from the City of Alexandria, one from the City of Falls Church, one from the City of Fairfax, and the Chairman of the State Highway Commission or his designee.

Washington Metropolitan Area Transit Commission

To provide for the regulation of transit on a coordinated basis throughout the Washington Metropolitan Area without regard to political and legal jurisdictions, the States of Virginia and Maryland and the District of Columbia entered into a compact creating the Washington Metropolitan Area Transit Commission. This commission, acting as an instrumentality of each of the three governments, is the regulatory agency for transit systems operating between points within its defined jurisdiction.

A certificate of public convenience and necessity issued by the commission is required to authorize the operation of any transportation service within the area. The Commission has general jurisdiction over fares, accounting practices, the issuance of securities, and the hearing and adjudication of complaints.

The Washington Area Metropolitan Transit Commission is composed of three members, one each appointed by the Governors of Virginia and Maryland and by the Board of Commissioners of the District of Columbia. Members are appointed from the members of the commission or agency of each state which has jurisdiction over the regulation of mass transit—in Virginia, the State Corporation Commission.

Rate of Return—The legislation creating the Washington Metropolitan Area Transit Commission declares as a matter of legislative policy that in order to assure the area an adequate transportation system operating as private enterprises, a carrier providing service should be given the opportunity of earning such a return as to make the operation an attractive investment. The opportunity to earn a return of at least 6.5 per cent net on gross operating revenues, after all taxes chargeable to transportation operations, including but not limited to income taxes, is not considered unreasonable under the provisions of the Act.

Limitation on Intrastate Transportation in Virginia—Because of the provision in Virginia's Constitution then in existence, the legislation creating the Washington Commission contains a provision specifically withholding from it jurisdiction over transportation wholly within the Commonwealth of Virginia, and reserving such powers to the State Corporation Commission of Virginia. The provisions of the new (1971) Virginia Constitution appear to no longer require this exception to the full jurisdiction of the Washington Metropolitan Area Transit Commission.

Reporting Procedures

The work of the first Virginia Metropolitan Areas Transportation Study Commission, as well as the present Commission, has been rendered more difficult and the results less satisfactory by the lack of readily available records on a uniform and comprehensive basis for many—but by no means all—of the transit systems in Virginia. In many cases the most elemental information, such as revenue and expense by standard accounts, revenue by class, and bus miles by type of service, has been obtained only on a partial basis and after considerable effort. In a number of cases certain items of basic information appear not to be recorded.

Need for Basic Records—The basic financial and operating records referred to are those which any prudent owner or manager of a private business would require for the making of decisions in respect to the conduct of his business. Where the business is a transit system rendering an essential public utility service, and where local and state governments are called upon to make decisions which will affect both the public interest and the interests of the private company, the ready availability of meaningful information upon which to base such decisions is essential. The information requirement is not a mere

proliferation of paperwork for abstract or theoretical statistical purposes, but is a *matter of substance underlying important decisions affecting the public* and the transit systems alike.

Diversity of Present Reporting Requirements—The fragmented control over transit operations in Virginia works against the orderly compilation of necessary data. Generally, there is no requirement for the filing of financial and operating report by transit systems with the local or state government having jurisdiction over them, although the Washington Metropolitan Area Transit Commission and some cities require the filing of some type of report on an annual basis. In other cities, the only financial and operating reports are those which are filed periodically with applications for fare increases. The most worthwhile information on transit operation in Virginia was obtained from the standard financial, operating and statistical reports maintained by a number of the transit companies for internal management control.

Under the reserved police powers, the General Assembly of Virginia would appear to have the authority to require reports of a uniform nature from transit systems, *including* those operated by municipalities and public agencies. The constitutional plan would have these reports made to the State Corporation Commission. The commission could by legislation be delegated the duty of prescribing the form and content of, and compiling, auditing, analyzing, and disseminating these reports.

Timeliness of Reports—The upward movement of costs and the frequency of fare revisions and other changes affecting transit operations has been at such a fast pace in recent years that the filing of annual reports only, particularly if they are not filed until several months after the expiration of the year, means that *many actions could be taken on the basis of outdated information.* Most privately-owned transit systems produce complete financial reports for internal management purposes on a *monthly* basis, usually containing comparative data for the previous year and for a cumulative period ending in the month for which the report is prepared. While it is not practical or desirable for this volume of detailed reporting to be carried out for regulatory purposes, a one-page monthly summary of financial and operating results, showing revenue and expense by general accounts, passengers, and miles, and noting wage, fare and other significant changes for each month and for the 12 months ending the current month, would serve to keep state and local officials informed on a current basis and *forewarned of any critical situation which may be developing.*

Chapter 6

FUTURE TRANSIT REQUIREMENTS

The future of transit in Virginia, in the final analysis, depends on public attitude toward it. This attitude is reflected in the actions of local and state officials toward measures of financial support to preserve transit service.

In an automobile-oriented society, one such decision might be that if transit cannot pay its own way as a commercial business venture, it should be allowed to die in the same manner that other businesses have expired as a result of change. While this viewpoint has prevailed in a number of smaller cities, generally under 50,000 population where transit service is no longer provided, it does not reflect the general viewpoint or the public needs in larger urbanized areas. The great metropolitan centers such as New York and Chicago could not function without their extensive mass transportation systems. In medium-size cities, transit performs a less critical but still vital role. In small urbanized areas just how essential transit is becomes less clear and may depend upon differing conditions of density and concentration of population, work patterns, and economic conditions.

While the importance of transit may be subject to review in some individual locations, there is general agreement about it in most state and Federal legislation and financing policies which support the need for transit service in urban areas. In the declaratory section of the Transportation District Act of 1964, the General Assembly of Virginia found that:

> "The development of transportation systems, composed of transit facilities, public highways, and other modes of transport, is necessary for the orderly growth and development of the urban areas of the Commonwealth, for the safety, comfort, and convenience of its citizens, and for the economical utilization of public funds."

In the Virginia legislation assenting to the creation of the Washington Metropolitan Area Transit Compact, the General Assembly found that the movement of persons and vehicles within the metropolitan area was hampered by traffic congestion and by the lack of adequate and coordinated mass transit facilities.

The legislative findings in the Federal Urban Mass Transportation Act of 1964 were:

> "That the welfare and vitality of urban areas, the satisfactory movement of people and goods within such areas, and the effectiveness of housing, urban renewal, highway and other Federally-aided programs are being jeopardized by the deterioration or inadequate provision of urban transportation facilities and services, the intensification of traffic congestion, and the lack of coordinated transportation. . ."

The stated purposes of the Federal legislation are to assist in the development of mass transportation facilities, to encourage the planning and establishment of areawide urban mass transportation systems, and to provide assistance to state and local governments and their instrumentalities in financing such systems.[1]

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1. Federal Aid is currently limited to capital costs.

The first Virginia Metropolitan Areas Transportation Study Commission found that transit was a major mode of travel and that intra-urban transportation problems cannot be resolved without the efficient use of urban transit.[2] The act creating the present study commission is directed toward the development of proper programs and plans to deal effectively with the problems of mass transportation in Virginia's urban areas, including financial assistance for transit.

National Trends

Virginia has been fortunate that its transit companies have not reached a financial crisis as soon as those in other states. The transit industry in the United States has been operating at a loss each year since 1963. These losses reached the massive proportion of $288 million in 1970, as shown in Table 20. As a result, 80 per cent of the transit service in the United States is now operated by public agencies.

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2. See Appendix A-3 for text of recommendations.

Table 20

RESULTS OF TRANSIT OPERATION IN THE UNITED STATES

1960 - 1970

YEAR	OPERATING REVENUE (000)	OPERATING EXPENSES (000)	NET REVENUE (000)	ALL TAXES (000)	OPERATING INCOME OR (LOSS) (000)	PER CENT OF OPERATING REVENUE
1960	$1,407,200	$1,289,850	$ 117,350	$ 86,660	$ 30,690	2.18
1961	1,389,700	1,295,770	93,930	77,200	16,730	1.20
1962	1,403,500	1,306,000	97,500	77,800	19,700	1.40
1963	1,390,600	1,312,560	78,040	78,920	(880)	(0.06)
1964	1,408,100	1,342,580	65,520	77,910	(12,390)	(0.87)
1965	1,443,800	1,373,760	70,040	80,650	(10,610)	(0.73)
1966	1,478,500	1,423,760	54,740	91,180	(37,070)	(2.51)
1967	1,556,000	1,530,864	25,136	91,740	(66,568)	(4.28)
1968	1,562,739	1,625,314	(62,575)	98,497	(161,072)	(10.31)
1969	1,625,633	1,744,989	(119,356)	101,156	(221,512)	(13.62)
1970	1,707,418	1,891,743	(184,325)	103,887	(288,212)	(16.88)

(1) Including depreciation but excluding interest.

SOURCE: American Transit Association, Transit Fact Book, 1970.

Five-Year Financial Estimates

Virginia is in a position to profit from experience elsewhere and be better able to meet its impending problems. This chapter undertakes to evaluate the problem in the immediate short-range period by a series of five-year estimates of financial results, capital requirements, and alternate conditions.

Forecast Procedure and Assumptions—The preparation of estimates of revenues and expenses for future years for any business involves making judgments as to a large number of variables. Some of these are reasonably predictable, such as wage and price inflation, while others may result from future conditions for which there is wider variance of probability. For example, the provision of more or cheaper parking, or the shift of major employers out of the central area, can adversely affect transit demand, while higher parking costs, a revitalization of the central business district, or constraints on automobile use could increase transit patronage.

Detailed information was available for the following properties in each of the three major groups:

Northern Virginia
A. B. & W. Transit Company—Alexandria
Washington, Virginia, and Maryland Coach Company, Inc.—Arlington

Larger Urban Areas
Virginia Transit Company—Richmond
Virginia Transit Company—Norfolk
Citizens Rapid Transit Company—Hampton—Newport News

Other Areas
Safety Motor Transit Company—Roanoke
Lynchburg Transit Company—Lynchburg
City Bus—Bristol
City Bus—Martinsville

The base year 1970 was used with no changes in passengers, miles, or average fares. Operating expenses were adjusted on the assumptions of (a) an annual increase in wages and salaries of eight per cent for the larger properties and five per cent for the smaller ones; (b) trend increases in the percentage of employer contributions to pensions, hospitalization, other employee welfare plans, and higher Social Security rates applied to increased wage payments; (c) moderate increases in fuel costs; (d) a three per cent annual increase in all non-payroll expenses; and (e) equipment and other capital costs borne by public funds. The same proportionate increases were applied to the other systems.

The resulting estimated operating statement, exclusive of return on investment, for urban transit in Virginia in 1975 is shown in Table 21. *The $10.0 million deficit amounts to 34 per cent of revenues at current fares and patronage.*

Table 21

ESTIMATED OPERATING RESULTS[1]

Urban Transit Systems in Virginia, 1975

METROPOLITAN AREA AND COMPANY	REVENUES AT CURRENT FARES (000)	ESTIMATED 1975 EXPENSE (000)	ESTIMATED 1975 DEFICIT AT CURRENT FARES (000)
Northern Virginia			
A.B.&W.	$ 7,029	$ 9,747	$(2,718)
W.V.&M.	5,535	7,667	(2,132)
Subtotal	$12,564	$17,414	$(4,850)
Southeastern Virginia			
VTC-Norfolk	4,097	5,346	(1,249)
Community Bus	928	1,206	(278)
Carolina Coach	409	532	(123)
Elizabeth River Tunnel Comm.	219	307	(88)
Subtotal	5,653	7,391	(1,738)
Richmond			
VTC-Richmond	5,689	7,363	(1,674)
Peninsula			
Citizens Rapid Transit	1,674	2,176	(502)
Hampton Road Bridge Tunnel	8	20	(12)
Subtotal	1,682	2,196	(514)
Roanoke			
Safety Motor Transit	1,183	1,569	(386)
Lynchburg			
Lynchburg Transit	751	1,005	(254)
Danville			
Danville Traction	503	654	(151)
Tri-Cities			
Tri-Cities Coaches	359	467	(108)
Bristol			
City Bus	204	314	(110)
Charlottesville			
Yellow Transit	206	268	(62)
Martinsville			
City Bus	102	127	(25)
Staunton			
Staunton Transit	76	99	(23)
Subtotal of 17 properties	$28,972	$38,867	(9,895)
Subtotal of 9 small bus systems[2]	398	517	(119)
TOTAL	$29,370	$39,384	(10,014)

(1) Based on calculations for 8 representative large, medium and small properties, representing 84 per cent of revenue for which support data was available, and percentage increases on the remaining systems; assumes no change in miles.

(2) Principally suburban services; 3 of the 12 companies in this group in 1968 have since discontinued fixed route services or gone out of business entirely.

The estimated annual expenses and deficits for each year from 1971 through 1975 inclusive, calculated in the same manner, are shown in Table 22. Operating expense, exclusive of return, increases from the 1970 figure of 80.4 cents to $1.05 per bus mile in 1975. Thus, assuming patronage and service remain constant in the five-year period, the aggregate deficit would total $29.4 million over the five years. In the light of wage and cost increases in recent years, the assumptions appear conservative; the effect of the recent wage and price freeze remains unknown at this time.

Table 22

ESTIMATED OPERATING RESULTS BY YEARS

Urban Transit Systems in Virginia
1970 - 1975

YEAR	REVENUES[2] (000)	EXPENSE[1] Amount (000)	Increase Amount (000)	Increase Per Cent	Per Bus Mile (cents)	DEFICIT (000)
1970	$ 29,370	29,974			80.4	(604)
Estimated						
1971	29,370	31,472	1,498	5.0	84.4	(2,102)
1972	29,370	33,202	1,730	5.5	89.1	(3,832)
1973	29,370	35,028	1,826	5.5	94.0	(5,658)
1974	29,370	37,130	2,102	6.0	99.6	(7,760)
1975	29,370	39,384	2,254	6.1	105.6	(10,014)
5-YEAR TOTAL	$146,850	$176,216	$9,410			$(29,366)

(1) Based on 1970 bus miles.
(2) At 1970 fares; includes charter, advertising, and miscellaneous operating revenues.

Adjustments for Other Probabilities—Financial analyses should, however, reflect changes in patronage and in bus miles which are likely to occur over the next five years, as the result of continued urban growth, suburban expansion, and changing travel patterns. A sound operation should also have some surplus over and above actual out-of-pocket expenses. Continued private ownership requires this reserve to provide a reasonable return on investment, after allowing for income taxes. In the case of public ownership, the surplus provides reserves for debt retirement, capital additions, and unforeseeable contingencies.

These adjustments are estimated in Table 23 on the basis of assumptions which past experience indicates are realistic. Revenue passengers were decreased by five per cent per year to account for trend declines and, to a limited extent, the impact of necessary fare increases. Longer travel distances to new suburbs, lower overall population densities, and the general demand for higher levels of service, make it difficult to adjust bus miles in proportion to passenger declines. On the basis of past experience, it is reasonable to assume that the number of passengers per bus mile will continue to decline. Accordingly, the number of passengers per mile has been assumed to decrease from 2.6 to 2.1 over the five-year period. These figures, applied to the anticipated number of revenue passengers, result in the total bus miles remaining relatively constant.

Table 23

ESTIMATED COST OF SERVICE AND REQUIRED FARE
TO COVER INCREASED COST INCLUDING RETURN

Urban Transit Systems in Virginia
1970-75

YEAR	REVENUE PASSENGERS[1] (000)	BUS MILES[2] (000)	PASSENGERS PER BUS MILE[3]	COST PER BUS MILE[4] (Cents)	OUT OF POCKET EXPENSE[5] (000)	EXPENSE INCLUDING RETURN[6] (000)	INDICATED AVERAGE FARE[7] (Cents)
1970	97,901	37,268	2.6	80.4	$29,774		30.5
				80.4	29,774	$33,346	34.1
ESTIMATED							
1971	93,000	37,200	2.5	84.4	$31,397	$35,165	37.8
1972	88,400	36,800	2.4	89.1	32,789	36,724	41.5
1973	84,000	36,500	2.3	94.0	34,310	38,427	45.7
1974	79,800	36,300	2.2	99.6	36,155	40,493	50.7
1975	75,800	36,100	2.1	105.6	38,122	42,696	56.3

(1) Assumes average 5 per cent per year loss in patronage.
(2) Based on passengers per mile.
(3) Assumes decreasing number of passengers per mile due to suburban expansion and higher levels of service.
(4) See Table 22.
(5) Excludes return to company.
(6) Includes 12 per cent to allow 6 per cent net after income taxes.
(7) Estimated average fare required to cover expense, including return.

The previously developed unit costs per bus mile, as applied to the estimated bus miles, produces total expense, exclusive of return. These figures were increased by 12 per cent to provide for a six per cent return after Federal and state income taxes, or, in the case of public ownership, to provide reasonable reserves.

Based on the estimated number of passengers, the required average fare increases from the 34.1 cents in 1970 (30.5 cents in 1970 without return on investment) to 56.3 cents in 1975.

These forecasts assume a normal commercial level of service and *do not include the cost of any extensive amount of promotional, developmental or policy ("public benefit") services,* or the revenue losses from the granting of reduced fares to special groups or areas.

The 56.3-cent fare requirement would have to be met by some non-user charges. If this fare were met by users alone, additional patronage declines would occur.

Capital Improvements

Meeting operating expenses is the most pressing problem of Virginia's transit system in the decades ahead. The capital costs of replacing and modernizing equipment and facilities is also important.

Since the earnings of privately-owned companies have not been sufficient in recent years to underwrite the necessary investment in new vehicles, equipment replacement often has been deferred. There is a backlog of over-age buses needing replacement. Of the State's 1,517 transit buses, 58 per cent (884 buses) are over 12 years old, and another 18 per cent (272 buses) will reach that age in the next five years. The average age of all transit buses was 12 years at the end of 1970.

The expected useful life of buses in the transit industry have been considered to be from 10 to 15 years. From the standpoint of attracting passengers and avoiding higher maintenance costs, a 12-year life has been used as representing the maximum desirable figure. If however, the 15-year life is adopted, the number of buses requiring immediate replacement would be reduced to 637, or 42 per cent of the total.

Financing of Recent Bus Purchases—Despite growing financial difficulties, Virginia's transit systems have expended over $8 million for the purchase of 267 buses in the preceding five-year period, as shown in Table 24. Only 23 of these buses were received by the publicly-owned systems in Bristol and Martinsville in 1967 and amounted to a total of $245,000 or 3 per cent of the total capital expenditures for buses in the 1966-1970 period. Thus the Federal capital grant program has had little effect in Virginia.

Table 24

BUS PURCHASES 1966-1970, AND NEEDED 1971-1975

Urban Transit Systems in Virginia

	NORTHERN VIRGINIA		LARGE URBAN AREAS		SMALL URBAN AREAS		STATE TOTAL		FEDERAL	NET LOCAL
	Number	Cost (1) (000)	Number	Cost (1) (000)	Number	Cost (1) (000)	Number	Cost (1) (000)	GRANTS	COST (000)
Purchased in Past Five Years										
1966	17	$ 561	25	$ 763	5	$ 100	47	$1,424	$ -	$1,424
1967	39	1,326	18	567	29 (2)	510	86	2,403	245	2,158
1968	25	875	19	608	6	132	50	1,615	-	1,615
1969	22	770	16	520	17	391	55	1,681	-	1,681
1970	16	576	5	165	8	192	29	933	-	933
Total	119	$ 4,108	83	$2,623	65	$1,325	267	$8,056	$ 245	$7,811
Average Per Year	24	$ 822	17	$ 525	13	$ 264	53	$1,611	-	
Needed in Next Five Years (3)										
1971	207	$ 7,452	504	$16,185	173	$5,133	884	$28,770	$19,180	$9,590
1972	36	1,361	68	2,317	16	480	120	4,158	2,772	1,386
1973	25	993	20	726	-	-	45	1,719	1,146	573
1974	41	1,706	29	959	1	29	71	2,694	1,796	898
1975	21	918	5	168	1	30	27	1,116	744	372
Total	330	$12,430	626	$20,355	191	$5,672	1,147	$38,457	$25,638	$12,819
Average Per Year	66	$ 2,486	125	$ 4,071	38	$1,135	229	$ 7,691	-	

(1) Estimated
(2) Includes 23 buses for Bristol and Martinsville acquired under Federal grants totalling $245,000.
(3) Based on replacement of buses after 12 years; assumes two-thirds Federal grants.

Bus Replacements—To replace all buses after 12 years of use will, however, involve purchase of 1,147 buses, or an average of 229 per year over the five year period 1971-1975. Capital costs would total $38.5 million. This estimated figure allows for inflation in the price of buses and for the estimated proper proportion of large, medium, and small vehicles. It does not, however, include the Federal excise and state sales taxes that would have to be paid if the buses were purchased by private companies.

Meeting capital expenditures of this magnitude is clearly beyond the capabilities of privately-owned companies and would severely tax the resources of state and local governments. It is in this situation that the Federal capital grants under the Urban Mass Transportation Act of 1964 contribute greatly to making a solution possible. Assuming that the regional planning and other requirements of the act are met, Federal grants of two-thirds of the capital cost would be available, reducing the amount to be raised from local sources to $12.8 million, as also shown in Table 24.[1]

Other Capital Needs—Improvements in shop facilities, communications and control systems, fare collection devices, and bus shelters and stops are also needed. The increasing prevalence of air conditioning in homes, offices and private automobiles indicates the desirability of air conditioned bus service. Accordingly, buses in the existing fleet under seven years old should be air conditioned, based on a five-year service life for bus air conditioning units.

Total Capital Requirements—The estimated capital requirements of Virginia's transit systems over the next five years amount of $43 million, as shown in Table 25. This estimate assumes approximately the same level of service as is presently provided. A 20 per cent increase in bus miles would call for an investment of approximately $52 million; a 20 per cent reduction in service could reduce the investment to $35 to $40 million.

1. Detail by companies of capital additions for replacement of rolling stock are shown in Appendix Table A-4.

Table 25

SUMMARY OF ESTIMATED CAPITAL ADDITIONS

Urban Transit Systems in Virginia
1971-1975

Capital Additions Required	COST(1)
Replace 884 buses over 12 years old in 1971	$28,770,000
Replace 263 buses that will become 12 years old in 1971 through 1975	9,687,000
Replacement of shop facilities, shelters, communications, and fare collection equipment	3,800,000
Air condition 153 buses under 7 years old	765,000
Total	$43,022,000
One-third of which is	$14,341,000(2)

(1) Exclusive of Federal excise and state sales taxes applicable to purchases by private companies.

(2) Local part of cost if two-thirds Federal grant available.

Federal Capital Grants—The Federal Capital Grants Program is administered by the Urban Mass Transportation Administration of the Department of Transportation. Grants are available to public agencies for up to two-thirds of the capital cost of buses and other transit facilities under the Urban Mass Transportation Act of 1964, as amended. Privately-owned transit companies may participate through contractual agreements with a public agency.

Assuming eligibility for and availability of Federal appropriations, the two-thirds grant provision indicates that the $43 million estimated capital requirements of transit in Virginia over the next five years could be met by a local expenditure of $14.3 million, or $2.9 million per year, assuming continuance of present service levels.

Chapter 7

FINANCIAL ASSISTANCE TO TRANSIT

The need for public support of transit is increasingly being recognized and accepted in the United States. Local and state aid is consistent with the role of transit as an essential urban public service.

The extent, form, and sources of aid will reflect the public attitudes and financial capabilities of each community. Local government participation in financial assistance to transit should be prerequisite to state support of operating and capital costs.

This chapter suggests methods, standards and controls which might be applied in giving necessary financial assistance to Virginia's transit system.

Public Service Aspects of Transit

Today public transportation is recognized as an essential public service (in the same category as fire, police and health protection, sanitation and schools) rather than as a profit-making utility enterprise which must be regulated in the public interest. This extends the role of public transportation beyond that of merely providing commercial or economic services. It calls for levels of service, fares, and convenience designed to improve urban mobility, retain present patronage, and attract travel from private automobiles—thereby reducing urban street and parking requirements. Additionally public transport must meet the urban travel needs of the many urban residents who depend on it—the aged, the unemployed, and those unable to drive a car by reason of income, age or physical disability. The "public benefit" aspects of transit in the modern city necessarily involve noneconomic, marginal and speculative services.

Public Finance Implications—It is generally recognized that the costs of a transportation service should be borne by users as well as other segments of tne community which benefit from it. It is now clear that the farebox revenues cannot provide the only source of transit financing without imposing fares so high that they will depress patronage and encourage further shifts to private car travel. The issue is not one of forcing the rider to pay the transit bill, but of inducing him to ride in the first place and to find a broader economic base for sustaining the transit system.

Many factors exist today which make total reliance on transit user charges impractical. There are in fact other cross-subsidies within the transport system which constitute departures from the concept of self support. For example, urban motorists may subsidize rural roads, suburban residents may subsidize travelers on center city freeways, off-peak hour highway users may subsidize peak-hour travelers, and patrons of busy transit routes may subsidize lightly-patronized lines. Present experience increasingly indicates that user charges which are not self-defeating are insufficient to meet all operating costs. In addition, there are non-user beneficiaries of an efficient public transport system, as reflected by both direct benefits to adjacent properties and by general community benefits.

Local Control and Support

The principle of local control and support of transit should not be abandoned. However, the limited tax resources and financial difficulties of local governments suggest the need for consideration of state financial assistance from local transit in appropriate cases. Such assistance is not without

precedent. For example, in Virginia direct state assistance for the provision of free transportation for students by local school districts has increased from $7 million in 1965 to nearly $11 million for the 1971-72 fiscal year.

Matching Funds for Operating Deficits—Financial assistance to local governments to help meet operating deficits (as distinguished from capital investment) could be in the form of matching funds. Since the local government should continue to control (a) service standards, (b) rates of fare, and (c) efficiency of operation, state contributions should be based on a specified matching contribution by the local government.

State aid could be based, for example, on a grant of 50 per cent of the annual net loss *exclusive* of any special taxes collected by the city or other local government unit, i.e. taxes applicable only to the transit system and not leveled uniformly on all taxpayers. To encourage reasonable fares, the state grant could be limited to 50 per cent of the net loss, or 15 per cent of the gross revenues, whichever is the lesser.

These limitations on the amount of state contribution would provide for a fair and liberal distribution among all urban areas, taking into account conditions beyond the control of the transit system (such as low population density, high peak-hour concentration and congested roads) which affect the costs of providing service. At the same time, they would tend to inhibit unduly low fares or excessive costs or levels of service by automatically reducing state aid where this occurs.

Magnitude and Control of State Contributions—The application of the suggested alternative limits to the year 1970, when transit losses were relatively small, is shown in Table 26. In all but two cases the 50 per cent of net loss formula would have controlled in 1970, the state subsidy in that year would have been approximately $415,000 based on actual service, cost and fare levels in that year.

Table 26

APPLICATION OF CONTROL FIGURES ON STATE CONTRIBUTION TO 1970 OPERATIONS

Urban Transit Systems in Virginia

METROPOLITAN AREA AND COMPANY	OPERATING REVENUE	NET INCOME OR (LOSS)	STATE CONTRIBUTION(1) Limit A 50 Per Cent of Net Loss	STATE CONTRIBUTION(1) Limit B 15 Per Cent of Operating Revenue
Companies Operating a Loss:				
Northern Virginia				
A. B. & W.	$7,028,667	$(182,497)	$ 91,000 *	$1,050,000
W. U. & M.	5,534,866	(377,219)	189,000 *	830,230
Southeastern Virginia				
Community Bus-Portsmouth	928,170	(22,875)	11,438 *	139,200
Elizabeth River Tunnel	218,840	(67,065)	33,537	32,800 *
Peninsula				
Hampton Roads Bridge Tunnel	7,623	(23,076)	11,538	1,140 *
Roanoke				
Safety Motor Transit	1,182,575	(69,787)	34,900 *	117,386
Lynchburg				
Lynchburg Transit	751,346	(43,267)	21,633 *	112,700
Bristol				
City Bus System (Public)	206,026	(37,876)	18,900 *	30,900
Charlottesville				
Yellow Transit	206,000	(14,214)	7,100 *	30,900
Staunton				
Staunton Transit (Public)	75,600	(8,196)	4,098*	11,340
9 Small Companies	398,038	(6,290)	3,145 *	59 700
Subtotal - Loss Companies	$16,537,751	$(852,362)	$426,289	$2,416,296

Table 26

APPLICATION OF CONTROL FIGURES ON STATE CONTRIBUTION TO 1970 OPERATIONS

Urban Transit Systems in Virginia

Companies Operating a Profit:			
Southeastern Virginia			
Virginia Transit-Norfolk	$4,096,275	$ 42,649	
Carolina Coach-Virginia Beach	409,400	7,500	
Richmond			
Virginia Transit - Richmond	5,688,766	$ 98,511	
Peninsula			
Citizens Rapid Transit-Hampton	1,703,294	8,792	
Danville			
Danville Traction Company	502,648	29,242	
Tri-Cities			
Tri-Cities Coaches	359,383	15,173	
Martinsville			
City Transit	101,743	8,332	
Subtotal - Profit Companies	$12,861,509	$ 210,199	
TOTAL	$29,399,260	$(642,163)	
Amount of Contribution as determined by application of formula			$415,154*

(1) Figure marked by asterick is the controlling figure.

As shown in Table 27, in 1975 the subsidy would increase to $4.4 million with the application of estimated 1975 operating costs, assuming continuance of 1970 fare structures and service levels. All transit systems would, under the assumed conditions, operate at a loss. With the much higher losses in this year, the 15 per cent of operating revenue limit would control the amount of state contribution in 13 of the 18 cases, although in 10 cases the differences are marginal.

Table 27

APPLICATION OF CONTROL FIGURES ON STATE CONTRIBUTION TO 1975 OPERATIONS

Urban Transit Systems in Virginia

METROPOLITAN AREA AND COMPANY	OPERATING REVENUE	NET LOSS	STATE CONTRIBUTION(1) Limit A 50 Per Cent Of Net Loss	STATE CONTRIBUTION(1) Limit B 15 Per Cent Of Operating Revenue
Northern Virginia				
A. B. & W.	$7,029,000	$(2,718,000)	$1,359,000	$1,054,000*
W. V. & M.	5,535,000	(2,132,000)	1,066,000	830,250*
Southeastern Virginia				
Virginia Transit-Norfolk	4,097,000	(1,249,000)	624,500	614,550*
Community Bus-Portsmouth	928,000	(278,000)	139,000*	139,200
Elizabeth River Tunnel	219,000	(307,000)	153,500	32,850*
Carolina Coach-Va. Beach	409,000	(123,000)	61,500	61,350*
Richmond				
Va. Transit-Richmond	5,689,000	(1,674,000)	837,000*	853,350
Peninsula				
Citizens Rapid Transit	1,703,000	(502,000)	251,000*	255,450
Hampton Rds. Bridge Tunnel	8,000	(12,000)	6,000	1,200*
Roanoke				
Safety Motor Transit	1,183,000	(386,000)	193,000	177,400*
Lynchburg				
Lynchburg Transit	751,000	(254,000)	127,000	112,650*

(1) The figure marked by asterick is the controlling figure.

Table 27 (Cont'd)

METROPOLITAN AREA AND COMPANY	OPERATING REVENUE	NET LOSS	STATE CONTRIBUTION(1) Limit A 50 Per Cent Of Net Loss	STATE CONTRIBUTION(1) Limit B 15 Per Cent Of Operating Revenue
Danville				
Danville Traction	$ 503,000	$(151,000)	$ 75,500	$ 75,450
Tri-Cities				
Tri-Cities Coaches	359,000	(108,000)	54,000	53,850*
Bristol				
City Bus System (Public)	204,000	(110,000)	55,000	30,600*
Charlottesville				
Yellow Transit	206,000	(62,000)	31,000	30,900*
Martinsville				
City Transit (Public)	102,000	(25,000)	12,500*	15,300
Staunton				
Staunton Transit Public	76,000	(23,000)	11,500	11,400*
9 Small Companies	398,000	(119,000)	59,000*	59,700
TOTAL	$29,399,260	($10,014,000)(2)	$5,116,500	$4,409,450
Amount of Contribution as determined by application of formula			$4,384,950*	

(2) No companies at profit in this year.

The suggested formula is further applied to total deficits from 1971 through 1975 in Table 28. For the first four years, the 50 per cent of net loss formula controls, while in the fifth year, when the estimated deficits exceed $10 million, the 15 per cent of revenue provision comes into effect to reduce the amount of state aid, thus encouraging a more realistic level of service. Under this plan the subsidy would range from $415,000 in 1970 to $4,409,000 in 1975, the latter figure based on existing level of service and no fare increase. Alternate service levels would change the total; if 20 per cent more service was provided, the subsidy would reach approximately $5.3 million. If 20 per cent less was provided, it would be about $3.5 million.

Table 28

CONTROL FIGURES ON STATE CONTRIBUTION

Urban Transit Systems in Virginia

YEAR[2]	STATE CONTRIBUTION[1]	
	Limit A	Limit B
	50 Per Cent of Net Loss	15 Per Cent of Operating Revenue
1970	$ 426,000*	$2,416,000
1971	1,050,000*	4,405,000
1972	1,900,000*	4,405,000
1973	2,830,000*	4,405,000
1974	3,380,000*	4,405,000
1975	5,117,000	4,409,000*

(1) The figure marked by asterick is the controlling figure.
(2) Estimated, 1971-1975.

Selective Subsidy of Marginal Services

Consistent with the desire of the community to provide services for general community benefit, consideration could be given to the selective subsidy of marginal transit routes. Those routes which the community may desire to provide for the public benefit might be supported from general fund contributions. Accordingly, the well-patronized routes of the community would not have to carry the weak routes. Theoretically this would provide a very precise identification of the cost and benefit of the various components of the transport system and would be consistent with good public finance practice.

Implementation of this system however, would call for detailed accounting for specific routes, and for a far greater detail of recording and reporting line statistics than generally exists. It also involves difficult problems as to allocation of revenues and of general overhead costs to specific lines.

State Tax Relief

Privately-owned bus companies in Virginia are exempt from one cent of the seven-cent motor fuel tax. A publicly-owned system would be exempt from the entire tax as publicly-owned school buses are now exempt. The fuel tax amounts to $65,000 to $115,000 per year for the larger operations in the State.

Privately-owned transit systems are already exempt from the two per cent state road tax and from the two per cent vehicle sales and use tax, so that no additional savings in this area are possible. Private companies are not, however, exempt from the motor vehicle license fee, amounting to approximately $60 per bus per year.

Further state tax relief could be helpful to Virginia's larger transit properties, permitting them to reduce substantially operating deficits in the short-term future.

Local Tax Relief—The gross receipts tax imposed by franchise or operating agreements has been eliminated or reduced to nominal amounts in most Virginia cities. However, the five per cent gross receipts payments in Richmond and Norfolk are among the highest in the nation and represent a substantial part of the operating expenses of these companies.

Public ownership and operation of the transit system—a possible ultimate course of action—will achieve most of the potential tax savings. Under public ownership, the systems can still be operated by private companies under an appropriate management contract. Such a contract can be carefully designed to permit the full tax savings which accrue to public ownership. However, one of the largest tax items in a transit operation are the Social Security and Unemployment Compensation levies. Increasingly higher employer contribution rates covering higher earnings have increased these tax items appreciably in recent years. No exemption is available through public ownership.

Impact on Net Income or Loss—Tax savings, while representing a useful dimunition of expense, are generally not of sufficient magnitude to make the difference between profit or loss. As shown in Table 29, full remission of the principal tax items of state motor fuel tax and municipal gross receipts payments would have produced net income for only one of the five companies reporting a loss. However, they would have substantially increased net income for three companies and reduced losses. Tax remission in Richmond, Norfolk, and Hampton would have materially improved the small net earnings, but about half of the tax savings would have been absorbed by income taxes.

Table 29

EFFECT OF TAX REMISSIONS ON NET INCOME
Selected Virginia Transit Systems

Year 1970

COMPANY	NET INCOME (LOSS) BEFORE INCOME TAXES	STATE MOTOR FUEL TAX	NET INCOME INCOME TAXES IF TAX REMITTED	MUNICIPAL GROSS RECEIPTS TAX	NET INCOME BEFORE INCOME TAXES IF BOTH REMITTED
VTC-Richmond	$+193,564	$115,064	$ 308,628	$261,277	$+569,905(2)
VTC-Norfolk	+ 91,254	78,395	169,649	203,712	+373,361(2)
Citizens Rapid Transit-Hampton	+ 10,149	33,011	43,160	12,462	+ 55,622(2)
Community Bus-Portsmouth	(22,876)	29,027	6,151	12,996	+ 19,147
Lynchburg Transit	(21,929)	16,326	(5,603)	1,741	(3,862)
Roanoke	(72,876)	25,392	(47,484)	11,769	(35,715)
A. B. & W.	(182,483)	85,000(1)	(97,483)	22,176	(75,307)
W. V. & M.	(377,219)	65,000	(312,219)	10,121	(302,098)

(1) Estimated.
(2) Approximately 30 to 48 per cent of tax savings would be absorbed by income taxes.

Northern Virginia Transportation District

The Northern Virginia urbanized area of Arlington and Fairfax Counties, and the cities of Alexandria, Fairfax and Falls Church has immediate and special financial problems arising from its participation in the Washington Area Metropolitan Transportation Authority under an interstate compact with the State of Maryland and the District of Columbia.

Rail Rapid Transit System—Thirty of the 98 miles of rail rapid transit line now under construction extend into and serve these northern Virginia cities and counties which constitute a part of the Washington metropolitan region. The capital cost of this system was estimated at $2.5 billion in 1968; this estimate has now been increased to $3.0 billion, as shown in Table 30. The Northern Virginia communities' share, originally estimated at $149.9 million, has increased to $204.9 million, representing 6.7 per cent of total project cost, as shown in Table 31.

Table 30

ESTIMATED CAPITAL COSTS OF WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY RAIL RAPID TRANSIT SYSTEM AND SOURCES OF FUNDS

ITEM	1968 ESTIMATES Amount (millions)	1968 ESTIMATES Per Cent of Total Cost	1971 ESTIMATES Amount (millions)	1971 ESTIMATES Per Cent of Total Cost
Total Project Cost(1)	$2,555.5	100.0	$3,046.5	100.0
Revenue Bonds	835.0	32.7	876.0	28.8
Balance	$1,720.5	67.3	$2,170.5	71.2
Federal Grants(2)	1,147.0	44.9	1,447.0	47.5
Balance-local share	$ 573.5	22.4	$ 723.5	23.7
Distribution of local share				
District of Columbia	$ 208.7	8.1	$ 269.7	8.8
Virginia	149.9	5.9	204.9	6.7
Maryland	197.0	7.7	248.9	8.2
Subtotal	$ 555.6	21.8	$ 723.5	23.7
Future allocation	17.9	0.7	-	-
Total - local share	$ 573.5	22.4	$ 723.5	23.7

(1) Includes net interest during construction.
(2) Includes $300 million interest subsidy under 1971 plan.

Table 31

ESTIMATED VIRGINIA SHARE OF CAPITAL COSTS OF WMATA RAIL RAPID TRANSIT SYSTEM BY CITIES AND COUNTIES IN NORTHERN VIRGINIA TRANSPORTATION DISTRICT

LOCAL GOVERNMENT	1968 ESTIMATES Amount (millions)	Per Cent	Amount (millions)	Per Cent
Alexandria City	$ 30.6	20.5	$ 39.9	19.5
Arlington County	54.0	36.0	76.1	37.1
Fairfax County	61.9	41.3	84.7	41.3
Fairfax City	2.6	1.7	3.2	1.6
Falls Church City	0.8	0.5	1.0	0.5
TOTAL - Northern Virginia	$149.9	100.0	$204.9	100.0

The Northern Virginia local governments have already paid more than $55 million of their obligation to the project from existing tax sources. All of them have entered into Capital Contribution Agreements with the Washington Metropolitan Area Transit Authority to pay their allocated shares over a seven year period ending in 1977. Construction of the system began in 1969. Major parts of the system in Virginia are expected to be in service by September, 1975.

Bus Services—In addition to the funds required for the regional rail rapid transit system, the Northern Virginia jurisdictions will in the next few years require an as yet unspecified amount for the purchase of bus equipment and facilities, for local funding of the Shirley Highway Demonstration Project, and for administrative and planning requirements.

Additional information as to specific Northern Virginia transit needs is included in Appendix A-5.

Chapter 8

ORGANIZATION AND ADMINISTRATION

It is, of course, desirable and in accord with the established legislative policy of Virginia that transit service continue to be provided by tax-paying private enterprise companies earning sufficient revenues to meet all expenses and attract private investment risk capital. Unfortunately, this desirable objective has become increasingly less possible of attainment in recent years. This does not mean, however, that public ownership is imminent in every city or that privately-owned transit systems cannot continue to participate in and render a useful service through purchase-of-service agreements or in the management and operation of publicly-owned transit systems, under management contracts.

Public Ownership

Public ownership is more likely to come into focus as a means of meeting a crisis in a particular city than through conscious design. The cities in Virginia which have already assumed ownership of their transit service did so when the private company failed or went out of business and the earning prospects were not sufficient to attract new private capital. The same basic condition is true as to the increasing number of private transit systems which have been taken over by local government in the past few years throughout the nation.

The current position of transit in the United States, and more recently in Virginia, clearly indicates that it is not realistic to expect that even present levels of service can be maintained much longer wholly from user revenues without charging fares that would be higher than the cost of a comparable journey by private car, and which would work a severe hardship on those substantial segments of the population which by reason of age, physical disability, low income, or unemployment cannot acquire or drive a private automobile. To meet the spiraling costs of providing urban transit service by raising fares commensurate with the cost increases, or by reducing the level of service, would have socially undesirable effects both as to the accommodation of those dependent on it for urban mobility and on inducing greater use of transit to relieve road congestion. Many private transit companies throughout the country have concluded from their experience that extremely high fares are not in fact productive and that public ownership is the ultimate answer. At least three major holding companies which owned large numbers of transit systems have undertaken to dispose of their properties in recent years. Smaller individually-operated companies with limited financial resources are even less able to withstand the impact of spiraling costs.

Public Subsidy of Privately-Owned Transit Systems

Public subsidy of privately-owned and operated transit systems can be accomplished in two ways—reductions of tax and other expenses by government action, and "purchase of services" in a manner that will overcome revenue deficiencies.

Reduction of Expense—The primary method of expense reduction that can flow from government action lies in the elimination of general and special taxes, such as franchise, gross receipts, and motor fuel. As indicated in the previous chapter, with two exceptions municipal gross receipts taxes in Virginia have been waived or reduced to nominal amounts. The other tax of major proportions which could be eliminated is the state motor fuel tax. The largest tax item for most transit systems is the employers' contributions to Social Security and

unemployment compensation funds which are treated as taxes although as a practical matter are part of labor cost. These cannot be eliminated or reduced. Tax relief measures should be fully utilized before moving into direct subsidy.

Debt Service Expense—Substantial reductions of interest and debt service expense can be accomplished by the purchase of buses and other physical facilities by local governments under the two-thirds Federal capital grants program. The use of Federal grant buses by private companies under contractual arrangements with their local governments is possible and has been accomplished in a number of cases. Capital additions secured in this manner will permit modernization and upgrading of equipment, and result in greater attractiveness of the service and reduction in maintenance expense. However, most private companies have in fact been unable to invest in new equipment and are to a substantial extent operating older buses which have been paid for and in many cases fully depreciated, and therefore have greatly reduced depreciation expense. The acquisition of new buses in this manner will not therefore, change their financial picture materially.

Measures to Increase Average Needs—Savings in expense resulting from higher average operating speeds due to road traffic improvements and preferential traffic controls for transit offer a valuable means of improving the quality of service and effecting operating economies. However, to be effective, such increased speed will have to be of sufficient magnitude to permit one bus and driver to make two trips where it formerly made only one, and the time saving must apply to a substantial portion of its operations.

Purchase-of-Service Arrangements—Virginia cities can, under existing legislation, enter into agreements to purchase transit service from private companies under terms which cover the full cost of service and thus eliminate operating deficiencies. In most U. S. cities where this is done the local (and in some cases the state) assistance is provided from general funds, and in other cases by the proceeds of specially earmarked tax levies.

Tax Problems of Subsidy Plans—Two problems arise in connection with the subsidy of privately-owned companies. The first and most difficult one arises from the fact that the return to the private company must necessarily include funds for payment of Federal income taxes. Thus to give the transit company a net income *after* taxes of $100, it must receive approximately $200 *before* income taxes. This means that the local government in effect is paying Federal and state income taxes. While any service or commodity purchased by government from a private company necessarily includes the income tax component of cost, this problem does present some objectionable features.

The second tax problem relates to the purchase of buses by privately-owned companies, as they are not exempt from the Federal excise tax and the state sales or use taxes. This problem disappears when the buses are purchased on a tax-exempt basis by the local government, using the Federal grant funds, and leased to the private company.

Public Ownership with Private Operation

Financial capabilities, the difficulty of attracting a sufficient volume of private capital, and the tax problems associated with subsidy, suggest the probable eventual public *ownership* of most transit systems. This, however, does not mean that they will necessarily have to be *publicly-operated.* Public ownership will automatically achieve the advantages of full tax exemption and public financing resources. As far as the day-by-day operation of the system is concerned, however, there is no advantage in public operation. Labor cost, working conditions, and employee welfare and benefit payments will be no less, and in fact may tend to be higher in public operations than in private ones.

Management Contracts—The advantages of private enterprise management can be retained under public ownership through the execution of a management contract with a private company on a negotiated fee basis. Arrangements of this kind were first made in the early 1960's in connection with public acquisitions in Memphis, St. Louis, and Miami. More recently, management contract arrangements have been made in Minneapolis-St. Paul, Rochester, Denver, Baltimore, Duluth and Peoria.

The management contract device permits the transition to public ownership to be carried out with minimum disturbance of existing conditions and makes immediately available a trained and qualified staff. Where the arrangement calls for the management company to provide all personnel for the operation of the system, difficult problems in respect to the union labor contracts, pension and welfare plans, seniority, and many other personnel matters are avoided. The management company would work directly under the commission appointed for the transportation district which would act in the capacity of a board of directors.

Transportation Districts

The Virginia Transportation District Act of 1964 provides the mechanism for the creation where necessary and appropriate of a unified transit system transcending city and county boundaries. The determination of the specific area to be included in a transit district is left to the participating cities and counties, and there is no requirement that they necessarily conform to regional boundaries established for other purposes. For example, regional agencies for long-range planning may need to encompass a larger territory than the presently built-up urbanized area; agencies for water or sewage purposes may include or exclude portions of an area for specific reasons relating to that function.

Mass transportation, as the term implies, deals with the movement of substantial numbers of persons in groups, and not to intermittent or individual transportation needs in thinly-settled areas. The political form of a local government unit in Virginia—county, city, or town—does not always reflect the population characteristics usually associated with those terms. For example, Arlington County is in practical effect a "city", while the City of Chesapeake encloses a very high proportion of unoccupied rural land with no urban characteristics.

From the standpoint of establishing the boundaries of a multi-jurisdictional transit district or authority, the United States Bureau of the Census "urbanized area"—not the SMSA— [1] usually best defines the urban-in-fact area constituting the "city." The urbanized area concept has been adopted by the U. S. Department of Transportation as the basic unit for transit planning purposes and this appears to be a realistic procedure, and one for which usable data is available.

In addition to the already established Northern Virginia Transportation District, several other urbanized areas in Virginia appear ultimately appropriate for the creation of districts. These are:

(1) The Southeastern Virginia Regional Area, comprising the cities of Norfolk, Portsmouth, Chesapeake, and Virginia Beach;

(2) The Richmond Regional Area, consisting of the City of Richmond and adjacent urbanized portions of Henrico and Chesterfield counties;

1. The Standard Metropolitan Statistical Area, or SMSA, includes whole counties, including rural areas, and therefore does not delineate an urban area.

(3) The Peninsula Region, including the cities of Newport News and Hampton and the contiguous portions of York and James counties.

(4) The Roanoke Regional Area, including the cities of Roanoke and Salem, the town of Vinton, and urbanized portions of Roanoke County adjacent to them;

(5) The Petersburg-Hopewell-Colonial Heights Area, encompassing those cities and some intervening urbanized area.

(6) The Lynchburg area, encompassing the City of Lynchburg and contiguous urbanized portions of Amherst and Campbell Counties; and,

(7) The Danville area, including the City of Danville and contiguous urban portions of Pittsylvania County.

This is not to say that there is an immediate need—if at all—for the creation of a regional transportation district in each of these districts. In the Roanoke, Peninsula, and Petersburg-Hopewell-Colonial Heights regions, most of the urbanized areas are already being served by the dominant transit systems. In both the Richmond and Norfolk (Southeastern Virginia) areas there is more fragmentation of existing service. In Southeastern Virginia long-established separate systems in Portsmouth and Virginia Beach involve difficult but not insoluble problems of integration. In Richmond the dominant company serves Richmond and expands as the City of Richmond annexes territory. The probable effect of integration of services in the Richmond area would be to increase the cost of service without a commensurate increase in revenue, due to the greater demands for service that would be made on a larger system.

In many areas annexation suits are in process and the ultimate decision will be on the basis of issues other than transit service. In some cases proposed annexations may result in the whole urbanized area coming within the jurisdiction of a single city, in which event the creation of a multi-jurisdictional transportation district would cease to be necessary. These conditions suggest that the component local agencies begin consideration of the coordination of transit service, in the light of the other issues which are being approached.

State Transit Agencies

On the basis of the character and short-term outlook of the transit problem in Virginia and the existing framework of legislation, it does not appear that a new statewide agency is required to handle the State's participation in transit development and improvement. Existing state agencies, such as the State Highway Department or the State Corporation Commission could handle the collecting, recording, analyzing and disseminating the background of information on the operations of public transit systems in the State with small technical staff additions. On the basis of this information the agency could make the necessary investigations and certifications in respect to any appropriations that might be made by the General Assembly in aid of transit.

Chapter 9

TRANSIT-RELATED STATE HIGHWAY PROGRAMS

The 1962 Federal-Aid Highway Act, which required continuing transportation studies in metropolitan areas of over 50,000 population, resulted in a new service by the Virginia Department of Highways—the inclusion of transit as well as highways in the total transportation plans for metropolitan areas. As a result, the Virginia Department of Highways has developed several transit studies as a part of the basic transportation studies and compiled valuable data on urban transit and its inter-relationship with highways as components of a balanced transportation system.

Highway Department officers served in an ex-officio capacity on both of the Virginia Metropolitan Areas Transit Study Commissions and provided assistance and access to transit data collected by the Department.

Three activities are currently being tested by the Department of Highways to assist transit operations. They are: (1) exclusive bus lanes; (2) fringe parking areas; and (3) measures to aid transit in the TOPICS programs.

Exclusive Bus Lanes

The exclusive bus use of reversible lanes on Interstate 95 (Shirley Highway) in Northern Virginia is a highly successful demonstration which has resulted in increased bus patronage and time savings of 20 to 30 minutes for each direction of travel. The project incorporates the exclusive use by buses of the reversible center lanes of this limited-access freeway.

The project was begun in September, 1969, and initially accommodated 190 buses with a daily patronage of 8,650 passengers. Each month since then, the patronage has risen until at the current time there are 200 buses carrying 9,700 passengers per day. In the peak-hour, the busway carries more people than the accompanying lanes to and from downtown Washington (Table 32).

Table 32

PEAK-HOUR BUS VOLUMES ON URBAN FREEWAYS

City	Facility Location	Vehicles Per Hour		Passengers Carried			Per Cent Carried By Bus
		Bus	Car	Bus	Car	Total	
Union City, New Jersey	Route 495	397	2,753	17,800	4,630	22,430	79.4
Washington, D.C.	Shirley Highway	120	2,760	5,600	4,100[1]	9,700	57.7
New York City	George Washington Bridge	136	3,659	6,936	6,220	13,156	52.7
San Francisco Oakland	Oakland Bay Bridge	216	6,185	7,812	9,250[1]	17,062	45.8

Table 32

PEAK-HOUR BUS VOLUMES ON URBAN FREEWAYS

City	Facility Location	Vehicles Per Hour Bus	Vehicles Per Hour Car	Passengers Carried Bus	Passengers Carried Car	Passengers Carried Total	Per Cent Carried By Bus
St. Louis	3rd St. Expressway	30	1,265	1,349	1,961	3,310	40.8
Chicago	N. Lake Shore Drive	99	10,007	5,595	15,011	20,606	27.2
Atlanta	North Expressway	19	4,915	1,892	8,500	10,392	18.2
Dallas	Central Expressway	30	4,380	1,567	7,008	8,575	18.2
Cleveland	Shoreway West	32	6,340	1,872	8,800	10,672	17.2
San Francisco	Bayshore Expressway	35	6,800	2,270	10,880	13,150	17.3
Los Angeles	Hollywood Freeway	41	8,010	2,268	12,050(1)	14,318	15.8
Philadelphia	Schuylkill Expressway	18	4,335	1,080	6,500	7,580	14.2

(1) Estimated at 1.5 persons per car.

SOURCE: Adapted from The Potential for Bus Rapid Transit by Wilbur Smith and Associates, 1970, and data collected by the American Transit Association. Shirley Highway data estimated from peak 2.5-hour count.

At the same time, traffic volumes throughout this section of Interstate 95 have remained relatively constant with heavy congestion and back-up occurring where a recently constructed six-lane segment becomes a four-lane section leading to Washington. At present, the remainder of this route is under construction and a meaningful measure of traffic congestion is difficult to determine because of the changing configuration of the roadway during construction of the final portions of the busway.

The busway has attracted national and international attention. Travel time savings on buses approximate 20 to 30 minutes per trip, and have been significant in encouraging additional patronage.

At present, the I-95 busway is the only facility operating in Virginia where transit vehicles use an exclusive lane. The concept being used in Northern Virginia can be adaptable to other locations in the State where the need exists and roadways can be designated for specific vehicles and carefully controlled.

Fringe Parking Areas

The Virginia Department of Highways is currently experimenting with the installation of fringe parking lots in suburban locations. From them it is anticipated that direct transit service would be provided to major traffic

generators in the downtown areas of cities. This program has already been undertaken in Henrico County, where a fringe parking lot on Parham Road is to have scheduled bus service to downtown Richmond. The Department of Highways can obtain Federal aid for the purchase and construction of the fringe parking lot. However, there is a need to get buses to serve the parking lot.

Current policy in the Urban Mass Transit Administration precludes Federal aid grants for buses where other Federal aid funds from other agencies have been used to procure the basic facilities. Consequently, it is necessary for the local transit company to provide the bus service. The type of service anticipated would feature buses over freeway-type facilities from the fringe parking areas to the downtown area, thus relieving the highways of traffic loads and providing bus riders with a faster trip.

The Virginia Department of Highways has expressed an interest in testing the merits of this type of service and has indicated its willingness to participate in fringe parking area projects throughout the metropolitan areas of the State. However, the Department will not provide fringe parking areas unless bus service is assured.

Other locations throughout the State where this type of fringe parking lot with bus service can be a feasible means of providing improved transit services are being explored. The experience of the Department in attempting to establish this type of operation indicates the need for coordination and cooperation of all participating agencies.

TOPICS Programs

The Virginia Department of Highways is carrying out a number of Federally-aided studies called "TOPICS" (Traffic Operation Programs to Improve Capacity and Safety) in seven major urban areas of the state—Northern Virginia, Southeastern Virginia, Peninsula, Richmond, Roanoke, Lynchburg, and Danville. These studies include an evaluation of current traffic operations and assessment of the critical needs in each metropolitan area. The purpose of the study is to identify immediate improvements which improve traffic operations and can be accomplished with minimum capital expenditures. The recommendations of these studies generally involve improved traffic signalization, street and intersection channelization, widening of intersections to improve capacity, bus turnouts, and other measures directed toward improved traffic capacity and operations.

As traffic movement is improved by reduced congestion and greater street capacity, transit vehicles will be able to speed up their operating schedules. In the Richmond TOPICS study, recommended improvements included one-way pairs of streets, interchanges to replace existing at-grade intersections, street widenings at critical points, channelization of intersections to provide for right-turn lanes and left-turn storage lanes, and improved traffic signal systems. Recommendations specifically directed toward transit involve construction of bus shelters at key transfer points, and bus turnouts to improve intersection capacity and provide for safer bus operation.

In every case the recommendations of TOPICS studies are fully coordinated with representatives of cities and the transit companies to assure that implementation will have local support.

A number of examples of how various roadway facilities can be adjusted to facilitate bus operations are given in Table 33.

Table 33

ILLUSTRATIVE ADJUSTMENTS TO
ROADWAY FACILITIES FOR BUS TRANSIT

General Application
All Types of Roads

1. Special bus streets.
2. Reserved bus lanes (CBD or arterial).
3. Reversible lanes for bus use only.
4. Bus lanes opposite to traffic direction.
5. Preferential traffic signal timing. Traffic signal preemption devies to give preference to bus movements.
6. Special turn regulations applicable to buses only.
7. Heavier pavement, better lighting, special lane-lighting and signing at bus stops.
8. Removal of obstructive signs, stanchions, poles and utility installations at bus stops.
9. Bus turnouts or other loading zone improvements.
10. Bus stop shelters.
11. Bus terminals.

Application Limited to
Freeway or Express Bus Service

1. Special busways (private right-of-way).
2. Special busway lanes in freeway right-of-way (e.g.Shirley Highway).
3. Special bus-only entrance-exit ramps and flyovers (e.g. New Jersey-New York tunnel approach).
4. Fully or partially reserved lanes on freeways for buses.
5. Lanes reserved for buses and car pools.
6. Special short sections of freeway for buses only to transition from freeway to bus terminal or surface street (e.g. AC Transit bus terminal San Francisco).
7. Special turnout lanes to permit bus stops along freeway and passenger access facilities to intersection streets (e.g. Hollywood Freeway).
8. Metering inflow of general traffic to freeways to reduce peak-hour congestion but giving buses preferential entry.
9. Park and ride facilities.

The Highway Department's expanding program of urban street construction also provides direct relief for transit operations in such cases where transit routings utilize streets proposed for improvement. Many cities have urban projects under construction which involve widening from two to four lanes, and in some cases the widening from four to six lanes. Improvements of this nature have a direct effect upon all vehicular traffic in that increased capacity is provided to meet travel demands. Considering urban highway projects as such, any improvement to the highway system results in an improvement of traffic flow to all types of vehicles.

Years ago Virginia was an innovator in transit when the nation's first street car operated in the State. Innovative techniques in mass transit will continue to appear, and demonstrations will be required. The Department of Highways should be counted upon to provide opportunities for testing such innovations.

Chapter 10

CONCLUSIONS AND RECOMMENDATIONS

Recent trends in fares, revenues, and expenses of urban public transit in Virginia, and throughout the United States, point inescapably to the fact that rising costs of operation and of capital investment can no longer be met from revenues even if fares are raised to levels which sharply reduce patronage and work a hardship on those segments of the urban population most dependent on mass transportation. Transit systems which have established fares of 40 to 50 cents are still in financial difficulty, and in some instances the higher fares have failed to produce additional revenue due to patronage losses.

At the same time, pressing problems of air and noise pollution, depletion of fuel and energy sources, and the social and financial costs of providing roads and parking facilities for an ever-increasing proportion of individual private car travel in urban areas, emphasize the critical importance of transferring a greater proportion of urban trips to public transport vehicles. Thus the question of sources of funds to preserve and improve transit takes on larger dimensions than the mere survival of a transit system, whether publicly or privately owned.

Capital and Operating Costs

As transit farebox revenues declined and costs increased, net earnings became insufficient to support the needed capital investment in new equipment and other facilities. Property acquisitions were of necessity deferred or held to a minimum. Ten years ago the Federal urban mass transportation financial assistance program came into being, providing non-repayable grants up to two-thirds of the net capital cost of both replacement and new transit facilities. These grants made it possible in many cases to upgrade transit equipment without heavy capital outlays or major increases in debt service expense.

More recently, however, spiraling wage rates and increases in the costs of day-to-day supplies and services have resulted in operating deficits of increasing severity. When revenues are insufficient to meet out-of-pocket operating expenses, assistance in acquiring capital assets becomes of secondary importance to survival. In this situation, an increasing number of transit systems have been subsidized or taken over by public agencies to avoid discontinuance of service.

Determining the Future Role of Transit

Transit service in most Virginia cities is still provided by privately-owned companies without any public subsidy or support, and in many cases still paying special privilege or franchise taxes. Their operations are at best financially marginal, and many companies are incurring operating losses. Private operation cannot be expected to continue much longer in the face of sharply rising costs, declining productivity of additional fare increases, and the critical need to make long-deferred capital improvements.

Commercial and Public Benefit Services—Viewed strictly as a commercial enterprise, transit must restrict operations to those portions of the urban area with sufficient density and distribution of population to generate substantial transit use, and must continue to raise its fares to cover costs and provide a margin of profit sufficient to justify and attract private investment. On this basis it cannot undertake the operation of "public benefit" services, however much these may be needed from the standpoint of the community as whole,

since such services are generally not self-supporting. The provision of levels of transit service sufficient to achieve a better balance between private and public transport in the interest of relieving urban congestion and air pollution, providing for the needs of persons dependent on transit for most trips (such as the indigent, elderly, and handicapped), and expanding service into thinly-settled outlying areas, involves costs which can only be met by public funds.

Availability Cost—Electric, gas, water and telephone utilities can incorporate a minimum or "stand-by" charge into their rate structure, and secure payment for the costs of extensions into thinly-settled areas where potential revenues will not otherwise justify the capital investment. Transit, however, cannot do this—if its service is not used, it collects nothing. Thus a public subsidy can be considered as a means of providing the stand-by element of transit cost.

Objectives—The basic objectives of the public transportation program are:

(a) To maintain and expand public transportation to meet the needs of urban residents and to form an effective part of a balanced

(b) To accomplish this through the medium of private enterprise transit companies to the fullest extent possible;

(c) To ensure efficient and economical operation of publicly-owned services where they become necessary; and,

(d) To provide the level and cost of service deemed necessary and desirable by the local community.

Private Operation

The continued participation of privately-owned transit companies can be achieved in several ways. Within the limits of commercial levels of service, privately-owned and operated systems can be assisted by:

(1) Remission of general and special taxes which constitute a substantial part of the cost of providing service;

(2) Prompt and timely action on reasonable requests for fare increases and service adjustments; and,

(3) The carrying out of traffic improvement measures to expedite and give priority to the movement of buses, thus increasing speed and reducing costs.

Tax Relief—Immediate relief for transit from certain state and local taxes will assist in extending the period of time that private operation can continue, and in expediting the eventual transition when necessary. Public ownership will involve exemption from taxes in any event, so that an interim tax relief is essentially a matter of timing. Further, tax relief for the transit industry represents a reduction in highway costs since maintaining an effective and attractive public transit system can result in decrease use of private cars.

The principal items of tax which should be considered as interim measures include:

(1) Exemption of privately-owned transit companies from the remaining six cents of the seven-cent state motor fuel tax, saving approximately $500,000 in operating expense for Virginia's transit system;

(2) Exemption from the $60 per bus state license fee, amounting to about $90,000 per annum; and,

(3) Relief from municipal gross receipts or privilege taxes aggregating about $550,000 on a statewide basis, although 85 per cent of this amount is collected in two cities.

Subsidy—Public agencies responsible for transit operations can subsidize private companies through purchase-of-service agreements covering both commercial and "public benefit" types of service as desired. While there are certain tax problems associated with this arrangements, they are not insoluble, and purchase-of-service agreements constitute one major approach to the preservation and expansion of transit service.

Management Contracts—Where public ownership of the transit facilities and properties becomes necessary, the execution of contracts with privately-owned companies to manage and operate the system for the local public authority should be considered. This concept is coming into more general use in the United States as public acquisitions of transit properties increase.

Public Ownership

The effective advantages of public ownership are the exemption from taxes, and the use of public funds or credit to finance capital improvements and to absorb operating losses. There is basically no advantage in wage and employee benefit expenses, and savings in materials and supplies are principally in exemption from sales, use and excise taxes. Generally, depreciation expense tends to increase if standard accounting and fiscal procedures are followed, as the public operation usually can make the new capital investments which privately-owned companies cannot afford.

The density and distribution of population and employment, income levels, car ownership, the dominance and location of the central business district, topography, continuity of street patterns, and the historical trends of transit usage in the community will influence the degree of success of a publicly-owned transit system in the same manner as a privately-owned one.

Historically in the United States publicly-owned transit systems have been units of a municipal government. Where urbanization extended beyond municipal limits, multi-jurisdictional public authorities came into being. Many, but not all of the earlier systems were required to adjust service and fares to cover all operating costs, but more recently public ownership has been a means of providing public financial support.

The Local Character of Transit

While its aggregate impacts are nationwide in scope, each transit system is essentially a local function within its own urban area. Each has its own individual characteristics, needs, problems and opportunities, without direct impact on other urban areas. This suggests underlying local responsibility for the direction and support of transit.

Where the built-up or urbanized area lies within a single political jurisdiction, the appropriate local unit of government is the city or county. In most cases, however, population growth and business activity has spilled over political boundaries, so that a single urbanized area may encompass a number of cities, towns and counties. The Virginia Transportation District Act of 1964 provides the legal mechanism for cities, towns and counties, each having jurisdiction over part of an urban area, to join together in providing a unified transit service.

The local urban community—whether a single city, or a group of contiguous cities and counties acting together through the transportation district—is the appropriate unit of government to determine the type of transit

service it needs and desires and how it should be funded. Such a decision will involve a balancing of needs and desires with the feasible and productive limits of fare charges, and the ability and willingness of local taxpayers to provide tax funds.

The financing of the transit system, either by a single city where appropriate, or by a group of cities and counties acting in concert under the Transportation District Act, is dependent largely upon funds raised by the local governments.

Alternate 1—Local Financial Support

Under present legislation the city, or the group of cities and counties constituting a single urbanized area and acting under the Transportation District Act of 1964, has the responsibility for local transit within its jurisdiction.

The concept for financial support by a Transportation District involves agreements by each of the constituent local governments to contribute its proportionate share of the cost (whether capital or operating) of the jointly-operated and unified transit system in excess of that collected in fares. This leaves it to each local government to secure the funds for its share from its own local tax sources. This method of financing a multi-jurisdictional transportation district appears more consistent with the principle of taxes being levied by elected representatives of the taxpayers than would a district with separate taxing powers. It takes into account varying tax resources of individual cities or counties, and gives greater flexibility for each in the allocation of its tax resources.

In addition, the "district" contemplated by the Act of 1964, being controlled by a commission consisting of elected officials of each constituent city or county, is in effect a joint agent of each, and does not in practical aspect constitute an "extra layer of government."

Possible Sources of Funds—The limited tax sources of local governments in relation to their responsibilities suggest the need for additional revenue sources to be authorized by the General Assembly, to be exercised by the local government in its discretion and as required to provide funds to meet its commitments to the Transportation District. The authorization of such additional tax sources would not preclude a local authority from meeting its obligation to the Transportation District in whole or in part from existing revenue sources.

Taking into account the allocation of ad valorem and other present taxes to general local government purposes, legislation authorizing the following local tax sources for transit subsidy appears worthy of consideration:

(1) *A local motor vehicle registration fee* authorizing cities and counties within an established Transportation District to increase their local motor vehicle registration fee to a maximum amount of $5.00 in excess of the limitation now imposed by Section 46.1-65 of the State Code of Virginia. The revenues produced by the additional fee would be earmarked to support the needs of public transit. Its imposition would be optional at the local level by each local government in the transportation district.[1]

1. This concept was suggested by the Virginia Department of Highways as a potential means of support for transit in the State.

(2) *An additional tax on motor fuels* to be designated for public transit needs and allocated to Transportation Districts for such purposes.[2]

(3) *A sales tax* to be optional for local governments within an established Transportation District, these funds produced by it to be used specifically for public transit needs.

(4) *An additional percentage of the state income tax* levied on taxpayers residing within the defined area of the Transportation District, to be used for support of transit.

(5) *A household unit tax* which would authorize cities and counties supporting urban transit services, either separately or as participants in a Transportation District:

a. to appropriate funds for the purchase of transit service and to meet the capital needs of such service; and,

b. to levy excise and/or additional business privilege taxes to be used for the purchase of such service and to meet capital needs.

The household tax could be levied on all persons within the jurisdiction (or in the case of a Transportation District, within the defined area of the district) who are billed for municipal utility or sewer taxes in an amount, for example, not to exceed $1.00 per month for each housing unit, or household. The tax could also be levied on businesses, based on the number of employees, but not to exceed for example, $12.00 per month.[3]

Single Jurisdiction Transit Systems—In some smaller cities and towns the transit system may not extend significantly beyond municipal limits. In addition, future annexations could result in a transit system coming within the jurisdiction of a single local government. Provision should be so that the adopted tax source authorization would not fail in such cases. This could be done by amending the Transportation District Act of 1964 to permit single-jurisdiction districts, or by exempting the single jurisdiction from the requirement of being in a Transportation District.

Alternate 2—State and Local Financial Support

This alternative contemplates that the Commonwealth undertake to reimburse cities or Transportation Districts one-half of their costs of maintaining public transit service. This would require:

(1) *State Funds for Operating Costs*—That the General Assembly appropriate funds to reimburse cities and counties, acting singly, or jointly as constituent units of Transportation Districts to the extent of one-half of all amounts they may expend for the operation or purchase of transit service within their jurisdiction in excess of the amounts collected in fares and from

2. The Northern Virginia Transportation District by resolution in July, 1971 proposed the levy of (a) a one-cent statewide tax on gasoline for use in meeting transit and transit-related needs, and (b) consideration of an additional one-cent tax levy within Transportation Districts.

3. Similar legislation enacted in 1965 by the State of Washington *(Chapter 35.95, Revised Code of Washington)* has been used to support transit service in three major cities in that state, in each case being approved by referendum.

other revenue sources, provided that the amount of state reimbursement does not in the aggregate exceed 15 per cent of the gross operating revenues of the transit system. In computing the amount to which the reimbursement shall apply, the full amount of any special taxes levied or collected by a city or county (i.e. taxes applicable only to the transit system) shall be deducted.

(2) *State Funds for Capital Costs*—That the State appropriate funds to reimburse cities and counties, acting singly, or jointly as constituent units of Transportation Districts for one-half of the required local contribution which they pay to the cost of purchasing buses or other transit facilities under the two-thirds Federal capital grants program, without distinction as to whether such buses and facilities are to be used by privately or publicly-owned transit systems.

(3) *Authorize Local Tax Sources*—That the General Assembly authorize cities and counties to levy and collect additional taxes, as set forth under Alternative (1), to be used for the purpose of meeting the local share of such operating and capital costs.

Based on continuation of present fares and passenger volumes, but taking into account probable increases in labor and other costs, the State portion of the subsidy of operating expenses in the 1971-72 biennium would amount to approximately $2,500,000.

Because of the large number of over-age buses presently in operation, capital replacement costs in the 1971-72 biennium would be very high, one-half of the local one-third amounting to about $4 million. By spreading the replacement program out over a longer period of years, one-half of the local share for the 1971-72 biennium could be reduced to $1.5 to $2.0 million.

Control Standards—In the interest of fiscal control and equal treatment of all areas of the State, the following conditions are suggested as prerequisites to state aid:

(a) Demonstrated efficiency of operation as exhibited by comparative unit operating revenue and expenses in comparable cities.

(b) Reasonable and realistic route coverage and headway standards, measured in relation to normal industry practice and related to traffic volume.[4]

(c) Normal and reasonable pay scales, working conditions, and employee benefits for both management and labor.

(d) Reasonable and realistic fares with a minimum of preferential and concession fares unrelated to the cost of service.

(e) Continued operation by private enterprise to the fullest extent possible.

(f) Current filing of monthly and annual reports, including year-end audit, by the local transit system.

(g) Assured availability of necessary local funds which the State contribution will match.

(h) Full advantage taken by the local system to secure Federal grants for capital items and to reduce interest expense.

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4. Procedure Manual 8-A, *Recommended Standards, Warrants, and Objectives for Transit Service and Facilities*, by the National Committee on Urban Transportation could be used as a guide for this condition.

(i) The local government to effect or have plans to effect reasonable and necessary traffic control measures, such as parking prohibitions, traffic signal controls, preferential treatment for transit vehicles, to avoid delays and increase the speed of transit vehicles and thus reduce costs.

(j) The State to retain the right to make management and financial audits and inspections of the transit system.

Certification for disbursement of funds could be made by the appropriate existing state agency on the basis of the financial and operating data required to be filed.

Other Recommendations

Applicable equally to both Alternates 1 and 2 are the following additional recommendations:

(a) *Creation of Transportation Districts*—The Transportation District Act of 1964 leaves the boundaries of a multi-jurisdictional district to be fixed by agreement among the constituent cities, towns and counties at the time the district is created. Since transit deals with the movement of persons in groups within urban areas and cannot successfully or economically provide transport in thinly-settled outlying areas, it is recommended that the standards used by the Bureau of the Census be employed as a general guide in determining the urbanized area to be included in the Transportation District.

In addition to the already established Northern Virginia Transportation District, other urbanized areas in Virginia should consider similar action. These include:

(1) *The Southeastern Virginia Regional Area,* comprising the cities of Norfolk, Portsmouth and Virginia Beach in their entirety, and that portion of the City of Chesapeake which may be delineated as "urbanized" on the basis of the standards used by the United States Bureau of the Census for the definition of an urbanized area in the 1970 census;

(2) *The Richmond Regional Area,* consisting of the City of Richmond, and the adjacent and contiguous portions of Henrico and Chesterfield counties delineated as a part of the Richmond urbanized area;

(3) *The Peninsula Region,* including the cities of Newport News and Hampton, and the immediately adjacent and contiguous portions of York and James City Counties which are delineated as a part of the Newport News-Hampton urbanized area;

(4) *The Roanoke Regional Area,* including the cities of Roanoke and Salem, the town of Vinton, and the intervening and contiguous portions of Roanoke County delineated as urbanized;

(5) *The Petersburg-Hopewell-Colonial Heights Area,* encompassing those cities and the intervening and adjacent areas included in the urbanized area;

(6) *The Lynchburg Area,* encompassing the City of Lynchburg and the contiguous portions of Amherst and Campbell Counties included in the 1970 census Lynchburg urbanized area; and,

(7) *The Danville Area,* including the City of Danville and contiguous urbanized portions of Pittsylvania County.

(b) *Reporting*—The lack of basic financial, operating and statistical

records on a uniform and readily accessible basis for Virginia's transit operations should be remedied by a specific requirement for the filing of such reports. It is recommended that legislation be enacted requiring all urban transit systems in Virginia, both publicly and privately-owned, to file with an appropriate existing state agency a detailed annual financial and operating report and a monthly summary report in the form and manner to be prescribed by the Commission. The State agency should be charged with the duty of receiving, evaluating, compiling, and distributing such reports to the Governor, relevant committees of the General Assembly, and appropriate State and local officials.[5]

(c) *School Buses*—The requirement that school buses be painted yellow and carry certain distinctive markings does not appear necessary or useful within urban areas. It is therefore recommended that school bus transportation services operated by urban transit systems for school districts within urban areas be relieved of the necessity of operating a particular type of bus as a condition of State reimbursement of school bus costs.

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5. See Appendix A-6.

APPENDICES

APPENDIX A-1

DEFINITIONS OF FORMS OF URBAN PUBLIC TRANSPORTATION-U.S. DEPARTMENT OF TRANSPORTATION

DEFINITIONS [1]

Urban public transportation services include all forms of transportation of passengers primarily between points within an urbanized area, available on a regular basis to anyone paying the prescribed fare, or where no fare is charged, otherwise meeting the requirements for use.

1. *General service, fixed routes and schedules*

These services, commonly referred to as "transit", operate on fixed routes and schedules, and collect from each rider a prescribed fare, usually set by public agencies. They have the legal status of public utilities or common carriers. The service may be provided by several types of vehicles, including:

Motor buses, generally ranging from 12 to 50 or more seats per vehicle. They include the "conventional" 35 to 53-seat buses used in most cities, smaller buses used in light traffic areas, and special types of small vehicles (e.g., "minibuses") generally serving special types of routes.

Electric trolley buses, generally similar to conventional motor buses except that power is drawn from a double-wire overhead electric line.

Electric street cars, or trolley cars, with 40 to 60 seats, drawing power from a single underground or overhead electric line, and operating on fixed rails, primarily on city streets.

Bus rapid transit, including motor buses operating (a) wholly or in part on separate rights-of-way, or (b) wholly or in part on freeways, with or without exclusive lanes or other preferential treatment.

Rail rapid transit cars, with 40 to 80 seats and variable standing capacities, operating singly or in trains of two or more cars on fixed rails in separate rights-of-way from which all other vehicular and foot traffic is excluded. The tracks may be located in underground tunnels, on elevated structures, in open cut, or at surface level where road crossings are constructed. While most rapid transit systems use the conventional dual-rail, steel-wheeled cars, this category also includes (a) rubber-tired tracked vehicles with steel guidance rails, and (b) suspended or over-riding monorail units.

Commuter railways, with electric or diesel-powered locomotives pulling trains of one or more cars, or with rail-motor units, operating on fixed rails in a separate right-of-way. In some cases the track or the right-of-way may be shared with freight and other passenger trains, and the right-of-way may be crossed at track level by vehicular roads and streets. The service is similar to that provided by rail rapid transit except that distances are usually greater, stations more widely spaced, and central business district delivery usually limited to one or two major stations.

1. Source: *National Transportation Planning Manual*, Manual C: Urban Public Transportation, Appendix A, U. S. Department of Transportation Urban Mass Transportation Administration and Office of the Secretary, January, 1971.

Passenger ferries, including those which also transport passenger cars and trucks. This classification includes conventional ferry vessels as well as hydrofoil and other higher-speed units.

Developmental and potential vehicles, not currently in general use, including air-cushion vehicles, compressed-air tube vehicles, linear induction automated tracked vehicles without driver, dual-mode vehicles, specialized aircraft for urban trips, and other systems under development.

2. *General services, not on fixed route*

These elements of public transport service are available to anyone desiring to making use of them, upon payment of the prescribed fare. They include:

Taxicabs, providing service on demand between points within an urbanized area, at fares prescribed by public authorities and measured by metering devices or zone systems. The passenger determines the destination of the trip, and group travel to different destinations is not generally practiced. Ordinary automobiles, or special vehicles of similar size, are used.

Limousine services, operating primarily or partially on fixed routes to and from airports, with passengers to or from predetermined locations sharing the same vehicle and paying an individual fare. These vehicles include "stretched" sedans, small buses, and conventional buses.

Jitneys or service cars, using passenger cars or van-type vehicles equipped with seats, and running to some extent on fixed routes and at uniform charges. These are generally competitive with the transit system, and may be regulated or unauthorized operations.

Micro-systems, for short-haul feeder (or "distribution") transport in central business districts and other concentrated areas. These systems are sometimes referred to as "people-movers", and envision the use of continuously moving belts (with or without cars), smaller scale trains or buses, or similar technologies. Except for limited specialized installations, these types of systems are still in the developmental stage.

3. *Limited service, fixed or variable route*

The following classes of passenger transport are available to (a) specified, limited groups of the public, or (b) for special purposes. This category includes:

School buses, operated by or for schools solely for the transportation of students to and from school, and for related school purposes. They may be owned by the school and driven by school employees, or may be owned and operated by contractors paid by school authorities. This does not include students travelling to and from school on regular or special routes of transit systems, and paying a prescribed fare (these are included in regular transit system passenger and revenue figures).

Charter and sightseeing buses, which may be operated as an incidental service by fixed route transit systems, or by companies engaged only in charter and sightseeing activities. In many cases charter service is a significant source of supplemental revenue for transit systems, and in some smaller companies may equal or exceed revenues from fixed route operations.

Special Purpose Private Buses, operated without charge at large plants and airports to provide transportation for employees, customers and visitors.

4. *Excluded Public Transport Services*—transport services carrying passengers between the urbanized area and points outside of it are excluded from the definition of urban public transportation. These excluded services include long-distance passenger trains and intercity bus lines serving points beyond the urbanized area. In some cases intercity trains and buses may carry some passengers between points within the urban area on their intercity scheduled runs. Such trips would be considered as part of the local transit travel by rail or bus.

Appendix A-2

ACT ESTABLISHING SECOND VIRGINIA METROPOLITAN AREAS TRANSPORTATION STUDY COMMISSION

Patrons: Messrs. Sears and Dudley 4/24/70mmh

CHAPTER 659

Whereas, the General Assembly in 1968 created the Virginia Metropolitan Areas Transportation Study Commission by Senate Joint Resolution No. 21; and

Whereas, that Commission submitted a report to the Governor and General Assembly fully outlining the scope of the matters which must be studied further to develop proper programs and plans to deal effectively with the problems of mass transportation in our urban areas; and

Whereas, the areas outlined by that Commission are complex and will require an adequate staff to evaluate them and assist in the preparation of a total program for improved transit; now, therefore,

Be it enacted ty the General Assembly of Virginia:

1. This act establishes the second Virginia Metropolitan Areas Transportation Study Commission which shall consist of eleven members to be appointed as follows: two by the President of the Senate, three by the Speaker of the House and six by the Governor. Members shall be appointed to serve for the life of the Commission. In addition, the State Highway Commissioner and the Director of the Division of State Planning and Community Affairs shall be members of the Commission ex officio. The Commission shall elect its Chairman from the membership.

2. The Commission shall proceed to conduct a thorough study of transportation needs in the metropolitan areas of the Commonwealth, utilizing the work prepared by and for the Virginia Metropolitan Areas Transportation Study Commission of 1968-1970 and shall examine the following areas, in addition to such other matters which it deems relevant: the Transportation District Act of 1964, regional transit authorities, franchises, financial assistance for transit, public versus private transit facility ownership, school bus service, relevant federal programs, the State's highway program in relation to mass transit, and the proper State organization to implement transit programs and transportation activities in the Commonwealth.

3. The members of the Commission shall be paid their necessary expenses incurred in the performance of their duties but shall receive no other compensation. In the conduct of its study, the Commission shall be authorized to employ full-time or part-time staff personnel including, without limitation, such professional aides as a staff director, research and operating engineers, attorney, economist and draftsmen and such clerical and stenographic assistance as required.

4. The Commission may accept and expend gifts, grants, and donations from any or all sources or persons for the purpose of carrying out its study, including appropriations made to it by law.

5. All agencies of the State and the governing bodies and agencies of

all political subdivisions of the State shall cooperate with and assist the Commission in its study.

6. The Commission shall submit its final report to the governor and the General Assembly not later than July 1, 1971, and may submit interim reports in advance of such date.

There is hereby appropriated to the Virginia Metropolitan Areas Transportation Study Commission from the general fund of the State treasury the sum of thirty thousand dollars for the purposes of this act.

Appendix A-3

RECOMMENDATIONS OF THE FIRST VIRGINIA METROPOLITAN AREAS TRANSPORTATION STUDY COMMISSION OF 1968-70

RECOMMENDATION
COURSE FOR FURTHER ACTION

Urban transit in Virginia is beset with problems which range from limited revenue to regulation and control. Since transit is a major mode of travel, its problems cannot be aided by simple programs that are not properly administered.

In densely populated areas where thousands of people live and work, lack of easy access to major activity centers adds a frustrating dimension to intra-urban travel which cannot be resolved without the efficient use of urban transit. Yet the cost of keeping and increasing ridership implies heavy investment in equipment that transit operators cannot now afford with present ridership and fare levels.

At the federal level of government there has been increasing emphasis on urban transit affairs. In addition to money now available, it is proposed to greatly increase the long-term financing for expanded urban public transportation programs and other related purposes.

Virginia should address itself to a total program of improved transit prior to the time when the situation will have reached the crisis level as has happened in the more urbanized states of the Union. A simplistic approach cannot be advocated, for in addition to the basic problems uncovered during the course of the Commission's study, there are other distinct areas of concern for urban transit: the interrelationship of highways and transit, the concern for the efficient expenditure of public funds for urban transport system development, and the need to achieve a model balance in urban transport systems as well as in statewide transportation systems.

The transit industry in Virginia lacks identity and is restricted by fragmented state and local control. With the development of a transit program the state can provide much needed assistance through the determination of suitable goals supported by a legislative program for state involvement. The only form of government assistance previously employed has been fragmented tax relief at both the state and local level in times of financial crises.

Under a total program effort transit would receive much needed recognition as well as having the state take a positive role to insure that transit will best serve the needs of urban Virginians.

In view of the complex nature of urban transit and limited time, staff, resources and data, a comprehensive program for legislative consideration could not be prepared at this time. The Commission's findings, however, indicate significant problems regarding urban transit affairs in Virginia. Since transit is not only an important element in urban transport systems but is also vital to the health of the state's urban society, it is felt that continued study is warranted.

The Commission is of the opinion that a new study group should be appointed in the same manner as the present Commission to consist of eleven members and two ex-officio members.

Representatives of the transit industry, existing regional transit

authorities, local government, the general assembly and appropriate state agencies, would constitute a body of broad based interests necessary to actively seek and develop the program required to assist transit. To support this new study group, the Commission proposes that the General Assembly appropriate $150,000 per annum to be utilized for the acquisition of full-time staff personnel and for expenses incidental to the accomplishment of the tasks charged to them.

Upon its creation, the newly appointed body would employ its staff and set forth the limits of the work effort. The program may attack any problems and questions which this Commission's efforts have uncovered; however, it is felt that special consideration should be given to the following tasks:

Transportation District Act of 1964

Evaluate the Transportation District Act of 1964 in relation to the establishment of Regional Transit Authorities.

Regional Transit Authorities

Number?
Locations?
Powers and duties?
Should establishment be voluntary or mandatory?
Composition?

Franchises

In-depth study of franchises and their relation to the State Constitution, State Corporation Commission and local governing bodies.

Financial Assistance for Transit

Should the State make a financial commitment to transit?
If so, what form should assistance take?

a. Match portions of federal grant projects?
b. Loans?
c. State level grants?
d. Special projects?
e. Additional tax relief?

Public Ownership Vs. Private Ownership

Investigate the feasibility and the economic desirability of acquiring privately owned transit with the objective of improving overall transit service and ridership.

School Bus Service

Study the possibility of aid for the transportation of city school children, the merit of the yellow school bus requirements for state aid, and the effect state regulations have on urban transit operation and local citizen school bus costs.

Federal Program

How can present and future federal aid programs for transit be most effectively used in Virginia?

Highway Program and Mass Transit

How can the Highway Program be directed to complement and support urban transit operation?

Upon the completion of its work in two years, the entire effort of the new study group should result in a comprehensive state program for transit. As a part of its charge, the study group should solidify its efforts by making an objective determination of the best statewide organization suitable for implementing its transit program and for eventually coordinating all transportation activities in Virginia.

Transit is a single element of a total transport system: however, with the growth and change that is now taking place in our metropolitan areas, it is becoming more important to recognize its necessity in our urban society. Virginia is fortunate to be able to experience from the fate of others. The State has yet to reach the level of urbanization characteristic of other areas of the nation, but the trend is already established. The efforts of the Virginia Metropolitan Areas Transportation Study Commission have resulted in the compilation of valuable information regarding the present status of transit in the Commonwealth. The problems and thoughts that have been developed during the course of the Commission's study should not be discarded without the further development of a program for positive State action for the betterment of transit in Virginia.

CONCLUSION

We wish to emphasize the value of the background work done for the Commission by the Staff. The Staff Report is being made available to the General Assembly and interested parties and copies may be obtained through K. M. Wilkinson at the Department of Highways.

The entire Staff worked diligently and has prepared much valuable groundwork for the comprehensive study we are recommending in this Report. We wish to express our appreciation to them for their fine efforts.

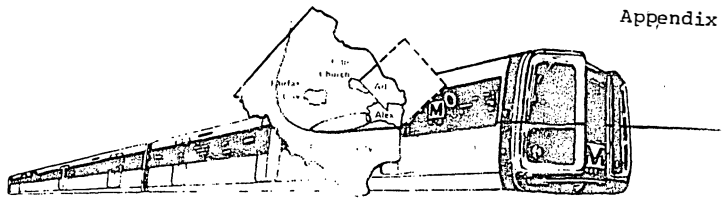
Appendix Table A-4

DETAIL OF CAPITAL ADDITIONS - REPLACEMENT OF ROLLING STOCK

Virginia Urban Transit Systems
1971-1975

Metropolitan Area	1971 Number of Buses	1971 Cost (000)	1972 Number of Buses	1972 Cost (000)	1973 Number of Buses	1973 Cost (000)	1974 Number of Buses	1974 Cost (000)	1975 Number of Buses	1975 Cost (000)	Total 1971-75 Number of Buses	Total 1971-75 Cost (000)	1964-70 Fleet Number	Total Fleet Number	Total Fleet Per Cent Replaced
Northern Virginia															
A. B. & W.	149	$ 5,364	21	$ 794	10	$ 397	26	$1,082	21	$ 918	227	$ 8,555	74	301	75
W. V. & M.	58	2,088	15	567	15	596	15	624	-	-	103	3,875	93	196	53
Total	207	$ 7,452	36	$1,361	25	$ 993	41	$1,706	21	$ 918	330	$12,430	167	497	66
Southeastern Virginia															
V. T. C. - Norfolk	163	$ 5,379	31	$1,074	6	$ 218	5	$ 191	-	-	205	$ 6,862	13	218	94
Community Bus	41	1,127	1	29	-	-	11	350	5	$ 168	58	1,674	15	73	79
Carolina Coach	-	-	-	-	-	-	1	42	-	-	1	42	11	12	8
Elizabeth River Tunnel	17	468	-	-	-	-	-	-	-	-	17	468	-	17	100
Suffolk City Transit	4	100	-	-	-	-	2	58	-	-	6	158	4	10	60
Total	225	$ 7,074	32	$1,103	6	$ 218	19	$ 641	5	$ 168	287	$ 9,204	43	330	87
Richmond															
V. T. C. - Richmond	181	$ 5,973	26	$ 901	14	$ 508	10	$ 318	-	-	231	$ 7,700	32	263	88
Commonwealth	3	75	-	-	-	-	-	-	-	-	3	75	-	3	100
Bon Air	3	75	4	105	-	-	-	-	-	-	7	180	1	8	88
West End	6	150	-	-	-	-	-	-	-	-	6	150	-	6	100
Fairfield	10	330	-	-	-	-	-	-	-	-	10	330	-	10	100
Total	203	$ 6,603	30	$1,006	14	$ 508	10	$ 318	-	-	257	$ 8,435	33	290	89
Peninsula[1]															
Citizens Rapid Transit[1]	76	$ 2,508	6	$ 208	-	-					82	$ 2,716	26	108	76
Roanoke															
Safety Motor Transit	38	$ 1,754	6	$ 208	-	-	-	-	-	-	44	$ 1,462	26	70	63
Roanoke-Starkey	5	125	-	-	-	-	-	-	-	-	5	125	-	5	100
Pendleton	6	150	-	-	-	-	-	-	-	-	6	150	-	6	100
Total	49	$ 1,529	6	$ 208	-	-	-	-	-	-	55	$ 1,737	26	81	68
Lynchburg															
Lynchburg Transit	26	$ 858	-	-	-	-	-	-	-	-	26	$ 858	17	43	60
Danville															
Danville Transit	27	$ 891	4	$ 116	-	-	-	-	-	-	31	$ 1,007	4	35	89
Tri-Cities[2]															
Tri-Cities Bus	20	$ 550	-	-	-	-	-	-	-	-	20	$ 550	9	29	69
Maitland Bros.	5	125	1	$ 26	-	-	-	-	-	-	6	151	1	7	86
Total	25	$ 675	1	$ 26	-	-	-	-	-	-	26	$ 701	10	36	72
Bristol															
City Bus	12	$ 330	-	-	-	-	-	-	-	-	12	$ 330	16	28	43
Charlottesville															
Yellow Transit	11	$ 275	-	-	-	-	-	-	1	$ 30	12	$ 305	10	22	55
Martinsville															
City Transit	2	$ 50	-	-	-	-	-	-	-	-	2	$ 50	12	14	14
Staunton[3]															
Staunton Transit	6	$ 150	2	$ 52	-	-	1	$ 29	-	-	9	$ 231	6	15	60
Quick-Livick	15	375	3	78	-	-	-	-	-	-	18	453	-	18	100
Total	21	$ 525	5	$ 130	-	-	1	$ 29	-	-	27	$ 684	6	33	82
Total - 25 Companies	884	$28,770	120	$4,158	46	$1,719	70	$2,694	27	$1,116	1,147	$38,457	370	1,517	75
Per cent of 1970 fleet	58		8		4		5		2		76		24	100	

(1) Includes buses chartered to Hampton Roads Tunnel Bus, age distribution estimated
(2) Hopewell Bus (Tri-Cities) no longer in fixed route service
(3) Al's Cab (Staunton) no longer in fixed route service



Northern Virginia Transportation Commission

RADIO BUILDING 2030 16TH STREET, NORTH ARLINGTON, VIRGINIA 22201 TELEPHONE (703) 524-3322

September 3, 1971

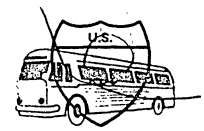
Mr. J.P. Royer, Jr.
Wilbur Smith and Associates
2 North 5th Street
Richmond, Virginia 23219

Dear Mr. Royer

As you know, for the past several years the Northern Virginia political sub-divisions have been participating through an Interstate Compact with the District of Columbia and Montgomery and Prince George's Counties in Maryland in the development of a regional rail rapid transit system. Construction on that regional system, which is presently estimated to cost approximately $3 billion, is underway. The share of this cost, which will have to be borne by the Northern Virginia political sub-divisions, is approximately $200 million. Of this amount, we have already contributed more than $55 million.

It would be extremely burdensome for us to meet these obligations under the present tax structure and base and, accordingly, additional revenue sources must be made available. We have been exploring this problem over the last couple of years and we are encouraged by the growing realization in the Executive and Legislative branches that State Aid for urban transit is both necessary and appropriate in Virginia, as it has been found to be in other urban areas.

We are aware that the problems of urban transportation are not unique to Northern Virginia but such problems exist in every urban area in the Commonwealth. Although the problem is the same in all



Sponsor of the transit service element
for the I 95 Shirley Highway, Express Bus-On Freeway Demonstration Project

our urban areas -- an adequate system for the movement of people and goods -- the solution will vary to meet the particular needs of each urban area. In Northern Virginia our program encompasses, in addition to the rapid rail system, the probable acquisition of the several private bus companies serving the area, providing bus service in special bus lanes in median strips of highways carrying heavy commuter traffic and possible commuter service on existing rail facilities. We are aware that all the other urban areas of the Commonwealth are faced with deteriorating bus service and facilities and that funds are required for capital improvements, new rolling stock, operating subsidies and purchase of private bus companies. In the Tidewater area, additional bridges and tunnels may be an essential element for the improvement of urban transportation.

In view of the fact that transit is a State-wide problem, we have been developing a legislative program designed to provide appropriate State financial assistance for all the affected urban areas. This program is set forth in Resolution No. 18 of the Northern Virginia Transportation Commission, a copy of which is enclosed herewith. You will observe that the Resolution sets forth a broad scope of eligible programs in order to encompass the needs of all the urban areas.

Based on our exploration of the problem, it appeared that the appropriate form of State assistance would be through an increase in the State tax levied on gasoline and other motor fuels to be ear-marked for the eligible transit programs. In this connection, we understand that the State Department of Highways will seek a 2¢ per gallon increase in those taxes at the forthcoming session of the General Assembly and that it is reasonable to expect that a portion of that increase may be made available for transit. It appears that 1¢ of that increase, which will produce approximately $20-$30 million per year, will be needed to provide adequate assistance for transit throughout the Commonwealth.

The enclosed Resolution also proposed that consideration be given to legislation which would authorize any transportation district organized under the Transportation District Act of 1964 (Code of Virginia, Section 15.0-1342, et seq.) to levy a 1¢ per gallon tax on gasoline and other motor fuels. If you have not already done so, it might be well for you to examine this legislation to see whether it would provide an administrative mechanism for handling of your transit problems.

Our counsel, Jerome M. Alper, Esquire, has prepared a Memorandum setting forth the several legislative provisions which need to be enacted in order to implement the proposed program for State

assistance and analyzing and discussing several areas requiring policy decisions. During the forthcoming two months, Mr. Alper will also be drafting legislation to implement this program.

We, of course, hope you will support this program.

Sincerely,

NORTHERN VIRGINIA TRANSPORTATION COMMISSION

By

Joseph Alexander
Chairman

JA/bcm

Enclosures

NORTHERN VIRGINIA TRANSPORTATION COMMISSION
2030 - 16th Street, North
Arlington, Virginia 22201

RESOLUTION # 18

SUBJECT: Legislative Program for Transit in Northern Virginia and Throughout the Commonwealth to be Submitted to the 1972 Session of the Virginia General Assembly.

WHEREAS: The need to complete the Metro Rapid Rail Transit System is critical and the need for interim relief for transit throughout the Northern Virginia Transportation District is imminent; and

WHEREAS: The commitment of the local jurisdictions in Northern Virginia of $150 million for the rapid rail transit system extends the fiscal resources of the Cities of Alexandria, Fairfax, and Falls Church and the Counties of Arlington and Fairfax to the maximum point; and

WHEREAS: There is a need to meet the added requirement of the Metro for Northern Virginia of $50.9 million from an alternative source of revenue which must be met in order to construct the system; and

WHEREAS: There is an increasing need to meet the local funding obligations: for the purchase of capital bus equipment in the interim prior to completion of the Metro system; for planning and administrative requirements of the Northern Virginia Transportation District; for local funding of the national Shirley Highway Demonstration Project; and for the planning and administrative requirements in the local coordination of land use and station access for the advent of Metro;

NOW, THEREFORE BE IT RESOLVED, that the Northern Virginia Transportation Commission, upon recommendation of its Legislative Sub-Committee, does hereby direct the staff to prepare legislation to implement the following:

1) A one-cent State-wide tax on gasoline to be levied for use in meeting transit and transit-related needs. Such taxes shall be allocated to transportation districts or Cities and Counties based on a specific adopted formula contained in the Bill. The following programs will be eligible:

a) Rapid rail transit and/or commuter rail.

b) The local share for purchase of bus companies by a public authority or support of capital grants for bus equipment.

c) Operating support of transit operations of a public or private authority including locally supported and operated toll facilities and roads.

d) The provision of the capital and/or operating needs to meet requirement of regional public authorities for authority tunneling projects.

2) An additional Transportation District regional one-cent gasoline tax shall be considered.

This review shall include a detailed financial program projecting the tax revenues and their utilization for transit and/or transit related needs.

AND, THEREFORE BE IT FURTHER RESOLVED, that appropriate organizations and officials be provided a copy of this resolution and their comments be solicited.

Adopted this 29th day
of July, 1971
Northern Virginia Transportation Commission

Joseph Alexander, Chairman
Northern Virginia Transportation Commission

Harold J. Casto, Secretary-Treasurer
Northern Virginia Transportation Commission

NORTHERN VIRGINIA TRANSPORTATION COMMISSION
2030 - 16th Street, North
Arlington, Virginia 22201

RESOLUTION # 19

SUBJECT: State Funding - Northern Virginia Transportation Commission.

WHEREAS: The Virginia General Assembly in 1964 created the Northern Virginia Transportation District comprised of five political jurisdictions: the Counties of Arlington and Fairfax and the Cities of Alexandria, Falls Church, and Fairfax; and

WHEREAS: The Northern Virginia Transportation Commission was created to manage the affairs of the Transportation District and to represent its more than 950,000 citizens in transportation matters within the region, and

WHEREAS: It is constituted by eleven appointive members from the five elected city and county governments within the District and one member representing the Virginia Department of Highways, and;

WHEREAS: The legislation creating NVTC intended that the Commission be continually involved as the liaison, coordination, and communication arm of Northern Virginia in the development of a rapid rail transit system and participate in activities relating to studies and recommendations concerning all modes of transportation to assist the orderly flow of traffic in Northern Virginia, and;

WHEREAS: The basic functions of NVTC as set forth in the Compact in the Transportation District Act of 1964 are:

Appoint the Directors and Alternates from Virginia on the Board of WMATA;

Participate in the processes of planning the regional transit system;

Formulate the tentative policy and decisions of NVTC with respect to the planning, design location, construction, and financing of transportation facilities;

Cooperate with the component government and the Virginia Department of Highways to develop the Virginia position on transit planning;

Review WMATA proposed transit plans, or any alteration, revision or amendment prior to adoption, and;

Allocate among the component governments the capital and operating costs to be borne by each county and city in financing the construction and operating costs of the transit system; and

WHEREAS: The general provisions in the law creating the Northern Virginia Transportation Commission were not specific enough to enable the Commission to perform a number of functions necessary to the implementation of the Metro rapid transit plan, or to meet other transit needs in Northern Virginia, and;

WHEREAS: At the Commission's request the Virginia General Assembly in 1970 enacted amendments to make the 1964 Act more responsive to these needs, making it possible for the Commission to: (1) acquire land in advance of actual need for such uses as fringe parking; (2) contract with others to supply transportation services in the District; (3) accept grants or loans from government agencies; (4) exercise the power of eminent domain; (5) purchase or lease, as lessor or lessee, transit facilities, and;

WHEREAS: Funds for NVTC activities are derived from three sources: Federal, State, and local contributions. Federal funds to the Commission are solely in support of the Shirley Highway Express Bus-on-Freeway Demonstration Project primarily for the purchase of equipment and facilities, and any administrative expense directly related to the project, and;

WHEREAS: To date the Department of Transportation has approved and allocated $2,099,003 to implement the project with a second application filed in the amount of $2,455,239, which make a total amount of $4,554,242 obligated and anticipated Federal expenditures through FY 1973, and;

WHEREAS: The duly appointed legislative sub-committee of the Northern Virginia Transportation Commission has reviewed the Commission's fiscal program for its participation in the Regional Rapid Rail Transit System, METRO and in other Federal and local transportation improvement projects for the region, and;

WHEREAS: The Northern Virginia Transportation Commission currently receives an appropriation from the Commonwealth of Virginia of $50,000 per year on a 3:1 matching basis for its planning and administrative budget requirements, and;

WHEREAS: The legislative sub-committee recognizes the overwhelming need to expand Transportation Commission programs to meet the needs of the 950,000 Northern Virginia residents to such areas as: the provision of new and expanded bus service to residential areas of the District through the acquisition of bus equipment; improve bus operations on major radial corridors such as Columbia Pike through the provision of special signalization devices, lane control signing and bus turnouts; advance acquisition of Metro sites for use as suburban fringe parking areas; transit impact planning to deal with the implications of transit station locations; continue the on-going Shirley Highway Express Bus-On-Freeway Demonstration Project and modify, expand and improve service through continual review of the bus operation; and continue the on-going planning and liaison functions with respect to the development of the regional rapid rail transit system, METRO, and;

WHEREAS: Since 1964 each of the five local jurisdictions have been contributing to activities of NVTC as well as to the regional subway agency (WMATA); such contributions have passed the $55 million mark and except for the $100,000 during this biennium to NVTC, there has been no direct State financial assistance to transit improvements in Northern Virginia, and;

WHEREAS: The majority of the cost of transit has been borne by the local Northern Virginia jurisdictions but will benefit the entire State of Virginia with a virtual boom in commercial and business investment which can be translated in terms of additional State tax revenue and employment opportunities in Virginia and with the multiplier effect of this activity generating additional jobs and economic activity, Metro will strengthen the fiscal position of the State more than any other single program in the modern history of the Commonwealth, and;

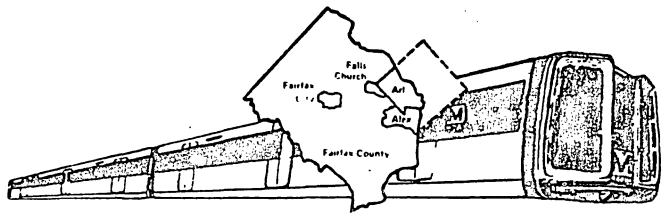
WHEREAS: The legislative sub-committee review included a comparison of the fiscal program of NVTC's sister agency, the Washington Suburban Transit Commission which receives a direct appropriation from the State of Maryland with no local matching fund requirement, and;

WHEREAS: Commonwealth funding of the Northern Virginia Planning District Commission, a planning agency in Northern Virginia, is on a 1:1 matching ratio, and;

WHEREAS: The new NVTC budget for the coming fiscal year reflects growing transit needs which makes it mandatory to seek an increase in local funds from its jurisdictions to meet transportation requirements;

NOW, THEREFORE BE IT RESOLVED, that the Northern Virginia Transportation Commission in an official meeting on July 29, 1971, in the Arlington County Board Room, Arlington County, Virginia does hereby upon recommendation of its legislative sub-committee direct the Commission staff to take appropriate action to request the Commonwealth of Virginia to increase funds appropriated for the Northern Virginia Transportation Commission's planning and administrative budget from $50,000 to $100,000 per year to be matched by local jurisdictions' funds on the minimum ratio of 2:1 and that said funds be authorized for participation in Federal programs.

This resolution is a part of the Commission files.



Northern Virginia Transportation Commission

RADIO BUILDING 2030 16TH STREET, NORTH ARLINGTON, VIRGINIA 22201 TELEPHONE (703) 524-3322

September 21, 1971

Mr. E. P. McCallum
W.S. & A.
4500 Jackson Boulevard
Columbia, South Carolina 29206

Dear Mr. McCallum:

It was good to see you yesterday in Richmond and I am pleased to enclose the material we discussed.

I am looking forward to working with you in the future.

Best personal regards,

Sincerely,

Judson E. Edwards

Enclosure

JEE:clg

Sponsor of the transit service element for the I-95 Shirley Highway Express Bus-On-Freeway Demonstration Project

MEMORANDUM

TO: Northern Virginia Transportation Commission

DATE: 8/11/71

FROM: Jerome M. Alper

RE: *Legislation for State Aid to Transit*

By Resolution No. 18, adopted July 29, 1971, the Northern Virginia Transportation Commission directed its Staff to prepare legislation making available State assistance for transit in Northern Virginia and throughout the Commonwealth through the levy of a 1¢ statewide tax on gasoline and by authorizing transportation districts organized under the Transportation District Act of 1964 (Code of Virginia (1950) (1964 Replacement Vol., § 15.1-1342, *et seq.*)) to levy a 1¢ gasoline tax within the area encompassed by any such district. A copy of that Resolution is annexed hereto as Exhibit A.

The statewide needs for transit have been considered in a report prepared for the Virginia Metropolitan Areas Transportation Study Commission (*Public Transportation Needs in the Metropolitan Areas of the Commonwealth of Virginia*, prepared by Wilbur Smith and Associates, June, 1971) This study, which does not give any consideration to the financial needs of the rapid rail system in Northern Virginia, indicates that the requirement for capital additions for transit systems in Virginia over the next five years is approximately $42,500,000. Assuming two-thirds of those costs would be provided under the National Urban Mass Transit Program, the non-federal one-third share would approximate $3,000,000 per year on the basis of a five-year program. The study also discloses that a subsidy of operating expenses in the magnitude of some $2,500,000 per year would be required.

The financial requirements for the Northern Virginia area are of significantly greater magnitude. The regional rapid transit project was originally estimated to approximately $2.5 billion, and it is presently estimated that the regional system will cost slightly under $3 billion. It is estimated that system revenues will support approximately $880,000,000 of revenue bonds to be issued by the Washington Metropolitan Area Transit Authority. The remaining approximately $1.7 billion of capital costs are to be provided on a two-thirds—one-third matching basis by the Federal Government and the local political subdivisions, including the District of Columbia. The federal share approximates $1.1 billion, and the local share approximates $575,000,000. Of this amount, approximately $150,000,000 is the share to be borne by Northern Virginia. There is attached hereto as Exhibit B a schedule showing the allocation of this commitment among the participating Virginia counties and cities. All of the participating local governments have entered into a Capital Contributions Agreement with WMATA under which they have obligated themselves to pay their respective allocated shares over a seven-year period ending 1977.

The financial plans developed by WMATA anticipate that the $500,000,000 cost overrun would be financed by the Federal Government and the local political subdivisions on a two-thirds—one-third grant basis, and the total share allocated to the Virginia counties and cities would be approximately $50,000,000. Legislation is presently pending before the Congress with respect to the federal share, but the local political subdivisions have not as yet entered into any commitments for their share.

In addition to the substantial sums required for the regional transit system, the Virginia jurisdictions will require an as yet unspecified amount for the purchase of bus equipment in the interim period prior to completion of the regional system, for local funding of the Shirley Highway Demonstration Project, for planning administrative requirements of the Northern Virginia Transportation District, and for the planning and administrative requirements and the local coordination of land use and station access for the regional system.

The regional transit project is essential to the proper growth and development of Northern Virginia and to the economy of the Commonwealth. The magnitude of the costs of the project, however, requires that the Northern Virginia counties and cities seek State financial assistance.

There is set forth below a discussion of the several components of the legislative package required in order to implement the Resolution of the Northern Virginia Transportation Commission.

STATEWIDE GASOLINE TAX

1. *Levy of the Tax.* The Commonwealth levies a 7¢ per gallon tax on gasoline (Code of Virginia (1950) (1969 Replacement Vol., § 58-711) and a separate levy in the same amount on other types of fuels for motor vehicles defined as "all combustible gases and liquids" (Code, § 58-732). It is understood that the Highway Department will seek a 1¢ per gallon increase in the tax on both types of fuels. The Resolution of NVTC specifies a levy only on gasoline, and, therefore, clarification is required to determine whether the levy proposed by NVTC is to be limited to gasoline.

The increase in either or both taxes may be accomplished very simply by amending the present law (Code, § 58-711 and 58-744) to replace the 7¢ per gallon rate with the increased rate of tax.

2. *Earmarking of the Tax for Transit and Other Designated Purposes.* In several states, diversion of highway user taxes is prohibited by constitutional provision. In Virginia, however, control of the use of highway user charges is a matter of statute.

The gasoline and other motor fuels taxes are collected by the Commissioner of Motor Vehicles and are paid by him into the State Treasury. Disposition of the revenues from both taxes is restricted by specific language in the tax legislation appropriating the revenues for "the construction, reconstruction and maintenance of highways and the regulation of traffic thereon and for no other purpose" (Code, § 58.730 (Motor Fuel) and § 58.757 (Special Fuels Tax)).

Under present law, six exceptions to the anti-diversion restriction on gasoline tax revenues are specified in the statute (Code, § 58.730). In order to make funds available for transit purposes, it would be necessary to amend that section to add an appropriate exception. A similar exception should be added to Section 58.757 if revenues from an increased tax on motor fuels other than gasoline are to be earmarked for transit purposes.

3. *Administration of the Aid.* An examination of these six exceptions discloses that in some of the situations the funds earmarked for non-highway purposes are administered by the Department of Highways, but in two other situations the funds are held in the State Treasury as a special fund with disbursements therefrom made at the instance of the agency entitled to use the funds. The distinction in the treatment of the funds appears to be based on whether the funds are to be utilized for highway-related or unrelated purposes. Specifically, the funds are administered by the State Highway Department under the exceptions permitting the diversion for (1) a contribution towards the

construction, reconstruction, or maintenance of streets in cities and town; (2) the operation and maintenance of the State Highway Department and the Division of Motor Vehicles; (3) inspection of gasoline and motor grease measuring and distributing equipment and for inspection and analysis of gasoline impurity; and (4) payment to counties which have withdrawn from the secondary system of State Highways (Arlington and Henrico Counties). In two other situations where the funds are not utilized for highway-related purposes, the special fund technique is used. In one case, the special funds may be disbursed upon the order of the State Corporation Commission, on warrants of the Comptroller to defray the cost of the administration of laws relating to aviation, and for the construction, maintenance, and improvement of airports and landing fields. In another case, a special fund known as the Virginia Agricultural Foundation Fund was created to finance the cost of research and educational phases of the agricultural program of the Virginia Polytechnic Institute.

Thus, statutory precedents provide alternative arrangements for administration of the funds, and a policy decision must be made as to whether the funds are to be administered by the State Highway Department or by a special fund technique with the funds held either by the State Treasury or the State Highway Department.

In any event, the specific arrangements for administration of the fund should be incorporated into the exception to be engrafted on Sections 58-730 and 58-757.

4. *Eligible Programs.* The NVTC Resolution proposes a statewide tax earmarked for transit and transit-related needs throughout the Commonwealth and specifies the four programs as eligible for assistance:

"a) Rapid rail transit and/or commuter rail.

"b) The local share for purchase of bus companies by a public authority or support of capital grants for bus equipment.

"c) Operating support of transit operations of a public or private authority including locally supported and operated toll facilities and roads."

"d) The provision of the capital and/or operating needs to meet requirement of regional public authorities for authority tunneling projects."

At present, there is no established policy for State assistance to any of these programs.

The Report prepared for the Virginia Metropolitan Areas Transportation Study Commission, referred to above, examines the transportation needs for the urban areas in terms of bus service. That Report, therefore, only deals with b) and that part of c), above, related to operating support for transit. It does not provide any information on the needs for locally supported and operated toll facilities and roads under c), above, or on rapid rail transit and/or commuter rail under a), or of capital and/or operating needs for regional authorities for tunneling projects under d).

Information with respect to the magnitude of the needs of these programs will have to be developed in order to support the proposed 1¢ per gallon earmarked tax. Such information may also be relevant to the determination of the formula to be established for allocating the earmarked revenues throughout the Commonwealth, Maryland, the District of Columbia, and the Federal Government. In order for WMATA to sell its revenue bonds to the public,

scheduled for early 1972, it must have commitments from all participating jurisdictions to assure that funds are available to complete the project. Thus, these commitments must be executed before construction can proceed.

In these circumstances, State assistance for the Northern Virginia project should be as definite as possible with respect to the amount of the assistance and the timing of the assistance. The allocation formula should reflect this requirement.

Another factor having a bearing on the establishment of an allocation formula is that the mass transit for the Washington metropolitan area regional system was adopted on March 1, 1968, after extensive public hearings and approval by all participating jurisdictions and the NVTC. Engineering on the total system is in advanced stages, and substantial parts of the system are under final design. In this circumstance, it is not feasible to delegate any control over planning and design in the allocation formula.

Thus, the function of the State agency administering the program should be in the nature of a conduit with responsibility to assure that the funds are utilized only for eligible purposes. The legislation should deal rather specifically with the documentation required to be submitted to support a warrant to draw down funds.

An examination of the various approaches presently utilized for allocating funds in State assisted projects discloses that in some cases, such as the allocations made by the Highway Department, the formula incorporates a large element of discretion. In others, the formula is based on specific factors, such as education (ratio of school-age children) and alcohol beverage (population). The latter type specific formula is more adaptable to the problems of financial aid for transit. With respect to transit, it would seem that the most suitable formula would be a refund to each jurisdiction of the revenues produced by the earmarked tax, perhaps, less the cost of administration of the tax.

It is to be recognized, however, that each political subdivision of the Commonwealth may not at all times have an eligible program within the limits specified by the NVTC Resolution. In order to deal with this situation, it may be desirable to expand the eligible programs to include other types of capital projects for those jurisdictions which do not have transit projects. As an alternative, the revenues could be earmarked solely for the projects specified in the NVTC Resolution and distributed only to those subdivisions and agencies which are engaged in the specified eligible projects. This presents a political issue which must be resolved before legislation may be drafted.

It must also be recognized that transit projects are not presently underway in the various areas of the Commonwealth and that these projects may be undertaken at different times. In light of this circumstance, the legislation should provide for the investment of any undistributed revenues in the fund. In addition, it may be desirable to enable an agency with currently very heavy commitments to overdraw against any excess monies in the fund, to be offset in later years by underdraws.

As a matter of draftsmanship, the programs eligible for assistance should be spelled out in the amendments to Sections 58-730 and 58-757 of the Code referred to above.

5. *Allocation Formula.* The utilization of a statewide tax, rather than an authorization to transit districts created under the Transportation District Act of 1964 to levy a regional tax, requires the enactment of a formula to allocate the revenues produced by the tax among the affected agencies and subdivisions of the Commonwealth.

It is to be understood that the financing of transit, except for one-shot capital grant type aid, involves long-range planning to finance construction requirements covering several years. This is particularly so in the case of the rapid rail transit in Northern Virginia and would be so for any large-scale public project, such as marine tunneling. The matter of financial planning is further complicated in the Northern Virginia project, reflecting the multiple jurisdictions involved, namely, five counties and cities in Virginia, two counties in Maryland and the District of Columbia.

DISTRICT TAX

The NVTC Resolution directed that consideration also be given to the levy of a 1¢ per gallon tax on gasoline by transit districts created under the Transportation District Act of 1964.

In this connection, it is to be recalled that the General Assembly in 1968 amended the Transportation District Act to authorize transportation districts to issue bonds and provide for the payment of debt service thereon "by such taxes as shall be levied or authorized to be levied or assessed by the General Assembly." (Acts of Assembly, Chapter 551, Code, § 15.1-1358.1, *et seq.*) The tax to be levied was not specified at that time.

The present NVTC proposal is designed to carry out the legislative policy adopted in the 1968 amendments that transit districts should be given a bonding and taxing power to assist the member governments in meeting the heavy cost of providing a rapid rail transit system.

The utilization of a regional tax levied by a transit district, rather than a statewide tax, would avoid the problems of determining the programs other than transit which would be eligible for State assistance and the formula for allocating the earmarked revenues among the eligible entities. Moreover, under the regional tax approach a better balance between tax revenues and project requirements could be achieved for each area.

In addition to providing for a specific tax, several other amendments are required to the Transit District Act of 1964, as amended. These are set forth below:

1. *Levy and Collection of the Tax.* Article 4.1 should be amended to specify the tax authorized to be levied and the relevant details regarding the collection and administration. In the interest of simplicity and of relieving the affected business community of the burden of filing an additional tax return with NVTC, it may be preferable to have the tax collected by the Commissioner of Motor Vehicles, who collects the State tax, and have him remit the revenues produced by the regional tax to NVTC. A conforming amendment would be made to Section 15.1-1358.1 of Article 4.1 to eliminate the "provided" clause at the end of the Section.

2. *Elimination of Requirement for Referenda.* Section 15.1-1358.1 (a) provides for a referendum to empower a transit district to issue bonds and levy supporting taxes, and paragraph (c) of that Section requires a further election to approve the issuance of bonds. In each case, a majority of the qualified voters voting in the election in each of the cities and counties is required for approval.

This is an extremely cumbersome and expensive procedure. Moreover, the transit project has already been submitted to voter appraisal in the referenda held in 1969 in Fairfax and Arlington Counties and in Falls Church and Fairfax Cities [1] in connection with the issuance of bonds by those jurisdictions to

1. No referendum was required to be held in Alexandria.

support the commitments of Northern Virginia under the present financial plan and received overwhelming approval. Construction is well underway, and each political subdivision in the three jurisdictions (Virginia, Maryland, and the District of Columbia) must provide its contributions at scheduled times to permit the continuous flow of construction and avoid the great costs of delays. A procedure which entails multiple elections poses a threat to the project which must be avoided.

There appears to be no legal impediment to the elimination of the referenda requirement. The Constitution requires a referendum for approval of the issuance of debt by a county, or district thereof, or by a regional government. The transit districts authorized by the Transportation District Act of 1964 are multi-jurisdiction, special purpose districts and do not fall into any of the categories dealt with under the Constitution. The General Assembly, under the long-established principle in Virginia that the General Assembly may exercise all powers not denied to it in the Constitution, may create special purpose transit districts under such terms and conditions as it deems appropriate. This was the legislative basis for the 1968 amendments to the Transit District Act of 1964, and the new Constitution does not suggest a different conclusion. In this connection, it is to be observed that there is no requirement that bonds to be issued by a Service District created under the Virginia Area Development Act of 1968 be submitted to a referendum (Code, § 15.1-1438 (b) (3)). It was not found necessary to change that Act to conform to the new Constitution.

3. *Debt Limitation.* Section 15.1-1358.2 (a) (1) of the Transit District Act of 1964 imposes a limitation upon the amount of bonds which may be outstanding at any one time to 9% of the true value of real estate in the district subject to local taxation. Such a limitation is not relevant for bonds to be supported by a tax on gasoline rather than by an *ad valorem* tax on real estate. It would seem preferable to adopt a limitation on bonded indebtedness specified in the Virginia Area Development Act (Code, § 15.1-1431 (b) (4)) which authorizes Service Districts to contract debts, borrow money, and make and issue bonds and other evidences of indebtedness within the constitutional limitations imposed upon cities.

Several other amendments, including the elimination of the 6% interest ceiling on bonds, should be made, but, since these are largely technical in nature, they are not listed and discussed in this Memorandum.

WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY

EXPLANATION OF REVISED FINANCIAL PLAN

William I. Herman

The General Manager has just outlined the President's proposal for an equitable, viable and obtainable financial plan for WMATA's $2.98 billion transit program. I should like to discuss some of the details and implications of that plan.

Table I presents WMATA's Estimated Income Statement for 1990—our target year for ridership and revenue forecasts and about midway through the terms of our bond issues. We estimate in that year the users of the system will provide $195.5 million in fare box revenue. With an additional $8.3 million expected to be realized from non-fare box sources such as parking fees and moderate advertising and concessions, the total gross revenue anticipated in 1990 is $203.8 million.

Our studies indicate that it will cost $107.2 million to operate and maintain the system in 1990. In order to insure modern and efficient equipment and facilities, we are allowing $15.3 million for depreciation and replacement purposes. Thus, *net* revenue *after* depreciation totals $81.3 million. This is the amount available for payment of debt service on the Authority's bonds.

Approximately $900 million of bonds could be financed with that revenue—if such bonds could be marketed. At the Airlie VI Conference, our financial consultants were adamant in their conviction that the Authority could not issue straight revenue bonds without either a guarantee or a pledged tax to support them.

The President's program thus provides needed assistance in three ways. The Federal guarantee will insure the marketability of the bonds at reasonable interest rates; the guarantee also places the entire risk of a default of payment on the bonds on the Federal Government; and, finally, the 25 percent interest rate subsidy allows the sale of about $300 million of additional bonds than could be financed without such an interest rate subsidy. This, in turn, reduces the net project cost of the system by the $300 million.

Table II compares the revised financial plan with the original plan. Total construction costs plus the additional net interest required during the construction period have resulted in an increase in the total project cost of about $490 million. As explained at Airlie VI, this is somewhat offset by higher fare box revenues.

The original plan assumed a 5 percent interest rate which would have allowed the sale of $835 million of bonds. The resulting net project cost was $1.7 billion. The revised plan contemplates the sale of almost $1.2 billion of bonds. It is estimated that about $900 million of these Federally-guaranteed bonds could be financed from the Authority's fare box revenues at an assumed interest rate of 7 percent. Because of the Federal interest rate subsidy of 25 percent—in addition to the Federal guarantee—the effective interest rate to the Authority becomes 5-1/4 percent and thus, the same fare box revenues with the interest rate subsidy permit the sale of $1.2 billion of bonds.

Under the revised financial plan, therefore, the net project cost—*after* deducting the $300 million Federal contribution in the form of the interest subsidy—becomes $1,870 million. Of this amount, $1,147 million of Federal grants have already been authorized. This sum, plus the $300 million additional

Federal contribution in the form of the interest rate subsidy is just twice the $723 million required from the area governments—thus maintaining the 2:1 matching formula previously established.

Table III shows the estimated distribution of the $723 million among the area governments. Before going through the estimated amounts for the individual jurisdictions, two points need clarification.

The first is that the data shown in this table are only estimates. They represent our best guess as of today but they are still only estimates. As you will recall, the capital contributions contracts now in effect provide that the final calculation of the distribution of net project costs will be made either five years after the start of construction or July 1, 1974—whichever is later. Since construction started December 9, 1969, that date of final determination becomes December 9, 1974. The latest available data at that time will be used for the allocation.

The second point to be stressed is that the original financial plan contemplated local grants of $573 million but that it was agreed to allocate $17.9 million of that amount in 1974. Consequently, the individual sums shown in the earlier plan total only $555 million. The revised plan includes that $17.9 million along with the additional $150 million now required. These additional sums will not be needed until 1975.

Thus, the Authority estimates of the allocation of the total local government requirements break down as follows:

District of Columbia		$269.7 mil.
Virginia		204.9 mil.
Alexandria	39.9 mil.	
Arlington County	76.1 "	
Fairfax County	84.7 "	
Fairfax City	3.2 "	
Falls Church	1.0 "	
Maryland		248.9 mil.
Montgomery County	137.9 mil.	
Prince George's County	111.0 "	

That is a summary of the Authority's revised financial plan which has the endorsement of the Administration. We hope it meets with the approval of the area governments and that it will meet with the approval of Congress when it is presented to them.

TABLE I

ESTIMATED INCOME STATEMENT FOR 1990

	ARS-71 (In Millions of Dollars)
Total Fare Box Revenue	195.5
Non-Fare Box Revenue	8.3
Adjusted Gross Revenue	203.8
Operating and Maintenance Expenses	107.2
Net Revenue Before Depreciation	96.6
Depreciation Expenses	15.3
Net Revenue After Depreciation	81.3

WMATA
Office of Planning
April 9, 1971

TABLE II

BOND ISSUES AND GRANTS NEEDED TO MEET TOTAL PROJECT COSTS

	ARS-68	ARS-71
	(In Millions of Dollars)	
Total Construction Cost of System 1/	2,494.6	2,980.2
Net Interest During Construction	60.9	66.3
Total Project Cost	2,555.5	3,046.5
Revenue Bonds Issued (Exclusive of Reserves and Federal Interest Subsidy) 2/	835.0	876.0
Net Project Cost	1,720.5	2,170.5
Federal Share	1,147.0	1,447.0
Grants	1,147.0	1,147.0
Interest Subsidy	-	300.0
Local Share	573.5	723.5

1/ Escalation Factors used were 5% for ARS-68 and 7% for ARS-71.

2/ Assumed Bond Interest Rates were 5% for ARS-68 and 7% for ARS-71. With the 25% interest rate subsidy, the effective interest paid by WMATA under the ARS-71 plan is 5-1/4%.

WMATA
Office of Planning
April 9, 1971

TABLE III

ESTIMATED ALLOCATION OF REQUIRED MEMBER GRANTS 1/

		ARS-68		ARS-71
		(In Millions of Dollars)		
REQUIRED GRANTS		573.5		723.5
DISTRICT OF COLUMBIA		208.7		269.7 2/
VIRGINIA		149.9		204.9
Alexandria	30.6		39.9	
Arlington County	54.0		76.1	
Fairfax County	61.9		84.7	
Fairfax City	2.6		3.2	
Falls Church	0.8		1.0	
MARYLAND		197.0		248.9
Montgomery County	110.4		137.9	
Prince George's County	86.6		111.0	
FUTURE ALLOCATION		17.9		

1/ Based on WMATA 40/30/15/15 Allocation Formula. Within Virginia, the 25/25/25/25 Allocation Formula was used.

2/ Includes $3.0 million payment from the District of Columbia for the Mid-City Alternate.

WMATA
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April 9, 1971

Appendix A-6

RECOMMENDED UNIFORM ACCOUNTING AND REPORTING FORMS FOR TRANSIT—COMMONWEALTH OF VIRGINIA

The following "*Urban Transit Report*" suggests the form and content of the financial and operating information needed to present the condition of Virginia's transit systems on a uniform and meaningful basis. Such information is necessary to assess the need for and probable magnitude of financial assistance, measure the relative efficiency and utilization of the system, and ascertain the effectiveness of financial aid.

The forms are designed for use by large, medium-sized, and small urban transit systems, both privately and publicly owned. The individual accounts conform to standard accounting methods in general use in the transit industry. They have, however, been re-grouped for greater clarity and significance.

The extent of information is no greater than that ordinarily compiled by the larger properties for internal control purposes. Smaller companies, with annual gross revenues less than $250,000 could be allowed to file only Page 1 on a monthly basis, completing the other schedules only once a year unless otherwise requested in particular cases.

Certain additional accounts would have to be included in Schedules A and B to cover rail rapid transit operations when this type of service is instituted in Virginia.

Form T-1 — Commonwealth of Virginia - Urban Transit Report — Page 1 of 1

FINANCIAL STATEMENT AND STATISTICS

Company Name _____ Month of _____ 197__

INCOME STATEMENT

	CURRENT MONTH				12 MONTHS ENDING CURRENT MONTH			
	THIS YEAR		LAST YEAR		THIS YEAR		LAST YEAR	
	Payroll	Total	Payroll	Total	Payroll	Total	Payroll	Total
RECEIPTS								
Fares-Scheduled Line Service								
Charter and Tour Service								
Contract Service								
Sale of Advertising Space								
Other Operating Revenues								
Non-operating Income								
Total Receipts								
EXPENSES								
Operations (Schedule A)								
Depreciation (Schedule B)								
Taxes (Schedule C)								
Interest (Schedule D)								
Total Expenses								
NET INCOME								
DEBT RETIREMENT								
NET INCOME AFTER DEBT RETIREMENT								
SUBSIDY OR PURCHASE-OF-SERVICE PAYMENTS RECEIVED								
BALANCE								
VEHICLE MILES OPERATED								
Scheduled Line Service								
Charter and Tour Service								
Contract Service								
Total Vehicle Miles								
REVENUE PASSENGERS (LINE SERVICE)								
Regular adult fares								
Reduced student fares								
Other reduced fares								
Total Revenue Passengers								
ACTIVE (LICENSED) VEHICLES								
Owned								
Maximum scheduled in line service								
NUMBER OF EMPLOYEES								
Bus Drivers								
Maintenance								
Office and Clerical								
Working Proprietors or Owners								
Total Employees								
WAGE SCALE (Dollars per Hour)								
Bus Operators-maximum rate								

Attach a separate sheet showing changes during current month in fares, wage rates, route miles, areas served, ownership of company, etc.

Name of Company _____
Street Address _____
City and Postal Zone _____
Telephone Number _____ Area Code ___

CERTIFICATE: I certify that I am _____ of the within transit system, and that the information contained in this report is true and correct to the best of my knowledge and belief. This ___ day of _____ 197 __

_____
Signature of Officer Submitting Report

Form T-1

Commonwealth of Virginia - Urban Transit Report

SCHEDULE A - OPERATIONS EXPENSE

Company Name _____

Month of _____197__

		CURRENT MONTH				12 MONTHS ENDING CURRENT MONTH			
		THIS YEAR		LAST YEAR		THIS YEAR		LAST YEAR	
		Payroll	Total	Payroll	Total	Payroll	Total	Payroll	Total
01	TRANSPORTATION								
	Drivers wages-scheduled line service								
	Drivers wages-charter and contract								
	Supervision and scheduling								
	Other transportation expense								
	Total								
02	MAINTENANCE								
	Repair and overhaul of revenue vehicles								
	Inspection and servicing of revenue vehicles								
	Maintenance of buildings, fixtures and grounds								
	Maintenance of service vehicles and machinery								
	Supervision of maintenance and servicing								
	Other maintenance expense								
	Total								
03	FUEL AND TIRES								
	Fuel (excluding taxes)								
	Tires and tubes								
	Total								
04	CLAIMS AND INSURANCE								
	Paid or accrued for third party claims								
	Insurance premiums for third party claims								
	Paid or accrued for employee claims								
	Workmens compensation insurance								
	Claim and insurance department expenses								
	Safety expense								
	Insurance premiums-fire, theft and other								
	Total								
05	EMPLOYEE BENEFITS								
	Contributions to pension plans								
	Contributions to life and accident insurance								
	Contributions to hospital and medical coverage								
	Informal pensions and other gratuities								
	Total								
06	RENTALS								
	Rental of buses								
	Rental of land and buildings								
	Rental of equipment and other								
	Total								
07	TRAFFIC AND BUSINESS DEVELOPMENT								
	Transfers, tickets, schedules, etc								
	Advertising and promotion								
	Total								
08	GENERAL AND ADMINISTRATIVE								
	Salaries-officers and owners								
	Salaries-general office employees								
	Purchasing and stores expense								
	Law expense (other than claims)								
	Audit expense								
	Office supplies and expenses								
	Other general and administrative expense								
	Total								
	TOTAL - OPERATIONS EXPENSE								
	Per Bus Mile (cents)								

Explanatory Notes:

Form T-1 — Page 3 of 5

Commonwealth of Virginia - Urban Transit Report

SCHEDULE B - DEPRECIATION EXPENSE

Company Name _____ Month of _____ 197__

	PROPERTY ITEM	AMOUNT CHARGED TO OPERATING EXPENSE				DEPRECIABLE LIFE BASIS (Years)
		CURRENT MONTH		12 MONTHS END.CURRENT MONTH		
		This Year	Last Year	This Year	Last Year	
11	REVENUE VEHICLES					
	City transit buses (standard)					
	Small city transit buses (under 30 seats)					
	Suburban and intercity buses					
	Bus body on truck chassis- school service					
	Bus body on truck chassis- adult service					
	Limousines and other special vehicles					
	Total					
12	SERVICE VEHICLES					
	Trucks					
	Passenger cars					
	Total					
13	BUILDINGS AND STRUCTURES					
14	MACHINERY AND EQUIPMENT					
	Shop machinery					
	Fare boxes					
	Radio and communications					
	Office machines					
	Furniture and fixtures					
	Other					
	Total					
15	DEPRECIATION OF INTANGIBLES					
	TOTAL - DEPRECIATION EXPENSE					
	Per bus mile (cents)					

Explanatory Notes:

Form T-1

Commonwealth of Virginia - Urban Transit Report

SCHEDULE D - INTEREST EXPENSE

Company Name _____ Month of _____ 197__

ITEM	CURRENT MONTH		12 MONTHS END.CURRENT MONTH	
	This Year	Last Year	This Year	Last Year
INTEREST ON DEBT				
First Mortgage Bonds				
Chattel Mortgage Notes				
Other debt -due owners or affiliated companies				
Other debt -general				
Total Interest				
AMORTIZATION OF DEBT DISCOUNT AND EXPENSE				
LESS: INTEREST EARNED on Temporary Investment of Debt Service Reserve Funds				
TOTAL - Interest Expense- Net				
Per Bus Mile				

Explanatory Notes:

Form T-1 — Commonwealth of Virginia - Urban Transit Report — Page 4 of 5

SCHEDULE C - TAX EXPENSE

Company Name — Month of _____ 197__

	TYPE OF TAX	CURRENT MONTH					12 MONTHS ENDING CURRENT MONTH				
		City	County	State	Federal	Total	City	County	State	Federal	Total
21	AD VALOREM PROPERTY										
	Real estate										
	Personalty										
	Total										
22	MOTOR VEHICLE LICENSES										
	Revenue vehicles										
	Other vehicles										
	Total										
23	MOTOR FUEL										
	Gasoline										
	Diesel										
	Total										
24	SALES, USE AND EXCISE (Note 1)										
	Sales and use (Note 2)										
	Excise-tires (Note 2)										
	Excise-other (Note 2)										
	Total										
25	FRANCHISE, PRIVILEGE AND REGULATORY										
	Franchise-gross receipts										
	Franchise-other basis										
	Privilege and business license										
	Regulatory commission fees										
	Corporation and stock										
	Total										
26	PAYROLL										
	Social Security -OAB										
	Unemployment										
	Other										
	Total										
27	INCOME										
	Current year										
	Prior years										
	Total										
28	OTHER										
	TOTAL - TAX EXPENSE										
	Per bus mile (cents)										

Note 1 - Exclude amounts charged to capital additions.
Note 2 - If included in Operations Expense, so note and do not include here.

Explanatory Notes:

Form T-1 Commonwealth of Virginia - Urban Transit Report

BALANCE SHEET

Company Name _____ Month of _____197__

	END OF CURRENT MONTH	
	This Year	Last Year
ASSETS		
PROPERTY		
At beginning of current period		
Net additions-current period to date		
Total Property -At Cost		
Less Accumulated Depreciation and Amortization		
Total Property-Net		
CASH AND INVESTMENTS-SPECIAL FUNDS		
Depreciation (Renewals and Replacements) Fund		
Claim Reserve Fund (Injuries and Damages)		
Debt Retirement Fund		
Other Special Funds		
Total - Special Funds		
CURRENT ASSETS		
Cash		
Temporary Investments		
Accounts Receivable-employees, stockholders, owners		
Accounts Receivable- general		
Working Funds		
Prepayments		
Materials and Supplies Inventory-at average cost		
Other Current Assets		
Total - Current Assets		
DEFERRED CHARGES		
Unamortized Expense		
Other		
Total		
INVESTMENTS IN SUBSIDIARY COMPANIES		
TOTAL - ASSETS		
LIABILITIES		
CAPITAL STOCK AND SURPLUS		
Capital Stock		
Owners equity (individual or partnership)		
Capital Surplus		
Earned Surplus		
Total - Capital Stock and Surplus		
LONG-TERM DEBT		
First Mortgage Bonds or Notes		
Chattel Mortgage Notes		
Unsecured Long-Term Debt		
Total Long-Term Debt		
CURRENT LIABILITIES		
Long-term Debt due within one year		
Interest Accrued		
Taxes Accrued		
Wages Payable		
Accounts Payable		
Trade Accounts		
Due Special Funds		
Other		
Other Current Liabilities		
Total Current Liabilities		
OTHER UNADJUSTED CREDITS		
Unredeemed tickets and tokens		
Other		
Total Unadjusted Credits		
RESERVES		
Claims (Injuries and Damages)-estimated liability		
Depreciation		
Other		
Total Reserves		
TOTAL - LIABILITIES		