

**REPORT OF THE
VIRGINIA DEPARTMENT OF TRANSPORTATION'S
RESPONSE TO SENATE JOINT RESOLUTION NO. 26**

**Study to Identify Needs
Of Rural Inter-Regional
Public Transportation**

**TO THE GOVERNOR AND
THE GENERAL ASSEMBLY OF VIRGINIA**



Senate Document No. 7

**COMMONWEALTH OF VIRGINIA
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EXECUTIVE SUMMARY

BACKGROUND AND PURPOSE

Like many states, Virginia has been affected by changes in public transportation services connecting its rural areas to its urban centers. The reduction in intercity rail passenger services following the creation of Amtrak and the decline in the availability of intercity bus service have meant that fewer places now have service, and that service is less frequent. Most of the loss of service has occurred in rural areas. These changes have been recognized by Virginia's legislature in Senate Joint Resolution No. 26 offered January 26, 1988, which called for a study of the transportation needs of Virginia's rural population with a particular focus on the need for intercity services in rural areas. This study is the response to that request.

CONCLUSIONS AND RECOMMENDATIONS

This report has attempted to identify the need for changes in the state role regarding rural intercity mobility. It has done this by examining the changes that have taken place in the regular-route intercity bus industry over the last several years, the losses and gains in Virginia services, the location of high potential need and the service provided to those locations, and the current state role in Virginia and in other states. Some general conclusions and recommendations are in order.

Conclusions

- Virginia's loss of service following deregulation was predicted by earlier state-funded studies. Service losses included virtually all the service operated by the small Class II and III companies. In addition, Greyhound Lines eliminated service on two routes utilizing the older U.S. highway routes. Service on the parallel interstates continue in operation in both cases, but there are fewer stops.
- The Federal Bus Regulatory Reform Act of 1982 (BRRRA) basically pre-empted state regulation of entry, exit and rates. This means that use of state regulation as a tool to require or increase rural intercity services is not possible.
- The remaining role of the Virginia State Corporation Commission (SCC), which could be valuable, is in identifying public need or concern about any future abandonment filings, since such requests must still be filed under both state and Federal law. The data required in these

filings is vital to Virginia Department of Transportation (VDOT) in the event that there is substantial public opposition to cessation of service.

- At this time the Greyhound/Trailways network in Virginia is extensive and relatively stable, as is the Carolina Trailways service. The only remaining independent regular route carrier of consequence is Intercity Bus Lines, and their services have been less stable, and are probably more vulnerable.
- There is no apparent current need for a state program of intercity bus assistance for operations of intercity services.
- The only actual growth in the size of the intercity network in rural areas has come about as a result of the Greyhound Rural Connection Program, which links local rural transit operators with the intercity operations to permit coordinated connecting service. Two such operations are underway in Virginia -- JAUNT and District 3. Neither has been able to perform the necessary marketing to attract significant numbers of connecting passengers. Neither operates the Friday evening and Sunday service which would provide the best connections for intercity passengers.

Recommendations

Despite the fact that no statewide crisis in rural intercity mobility has been identified, there are several actions that VDOT could take to support an increase in rural intercity mobility, and to be ready in case of future service losses that are not now foreseen. These include:

- Maintaining the intercity bus network as a privately-operated, publicly available transportation service, with public involvement limited to...
- Supporting local involvement in the Greyhound Rural Connection program by state funded rural operations. The example of Michigan presents several ways in which the state could be of assistance, though not necessarily at that scale. Suggested VDOT actions include:
 - provide experimental program funding for marketing and limited additional service to the two current Rural Connection partners. Greyhound is providing the materials and a marketing manual-- the local operators need funds to print and place the materials.
 - promoting the concept with other rural operators, as indicated in this report, to expand rural mobility options. This step could begin immediately, but any additional funding to support expansion should probably wait until the results of marketing and service assistance at the two current operations are available.
- Making information about intercity options available to the public through a state public transportation guide. This is currently being developed, and would be helpful to the carriers and the public.

- Improving VDOT readiness for currently unforeseen intercity abandonment actions that might call for state assistance. This would include taking steps to allow for early identification of potential problems through the SCC, having provisions for maintaining service during an interim period while continuation decisions are made, and having the regulations in place to allow for competitive bidding and direct contracting with intercity carriers.
- Performing a more detailed statewide assessment of current and potential long-distance commuter markets. The state is currently involved in financial assistance to several projects that address such needs, but it is not known what the potential demand for such service is, and whether any of it might be provided by the private sector with limited or no public assistance.

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INTRODUCTION AND STATEMENT OF THE PROBLEM

BACKGROUND AND PURPOSE

Like many states, Virginia has been affected by changes in public transportation services connecting its rural areas to its urban centers. The reduction in intercity rail passenger services following the creation of Amtrak and the decline in the availability of intercity bus service have meant that fewer places now have service, and that service is less frequent. Most of the loss of service has occurred in rural areas. These changes have been recognized by Virginia's legislature in Senate Joint Resolution No. 26 offered January 26, 1988,¹ which called for a study of the transportation needs of Virginia's rural population with a particular focus on the need for intercity services in rural areas. This study is the response to that request.

Until this time, the services connecting rural areas and small towns to the big cities have been provided by private sector firms without government assistance. The state and Federal government role with regard to these services was to regulate the industry in terms of entry, exit, fares and safety concerns. In the last six years the regulatory role has been largely eliminated, and the question is whether there should be a change in the role of government, particularly at the state level. For the states, including Virginia, the major question is whether or not the decline in intercity bus services has caused a mobility problem for rural citizens that should be addressed in some way by the state. If it is determined that such a problem exists, what are the alternatives for dealing with it? And, for each alternative, what are the appropriate state and local roles? What is the future role of the private sector in providing such transportation? This study will address these questions.

Overview of the Recent Developments in the Intercity Bus Industry

The intercity bus industry in the United States in 1988 bears only a partial resemblance to the industry as it existed in 1978. A continuing decline in the demand for regular-route service, coupled with airline deregulation in 1978, created major problems in the long-haul regular-route business base of the industry. At the same time, the demand for charter, tour and other specialized services such as casino buses and airport service has been growing, leading to some major shifts in the focus of much of the industry. The Bus Regulation Reform Act (BRRRA) of 1982 provided flexibility to the industry to

¹Appendix A to this report presents the full text of Senate Joint Resolution No. 26.

deal with these trends by eliminating or reducing much of the federal and state regulation that had governed the industry over the previous 50 years, setting the stage for the tremendous changes in the last six years.

Many people who are not familiar with the industry and its services look back to its role in World War II, when demand for all public transportation in this country was at its peak due to gas rationing, the lack of new autos, tires and parts, and the need to move masses of people as part of the war effort. Naturally, after the war demand fell, and the number of persons carried on schedules has been falling ever since, with some short term increases during the oil crises of 1973-74 and 1978-79. In 1981, the decline in ridership accelerated, ridership has continued to fall until recently. There are several reasons for the decline.

One is the general long-term trend toward increased auto ownership and usage. From 1975 to 1986, for example, the number of vehicles in use increased 22 percent, and from 1975-1984 the amount of vehicular usage increased 19 percent. The average number of vehicles per household in the United States increased from 1.05 to 1.61 between 1960-1980, and the majority of households in this country now have two or more vehicles available. The number of households without any auto declined from 22 percent of all households to 13 percent. This type of increase in auto availability is bound to have an effect on bus ridership, and it appears as a major part of the long-term exogenous decline in regular-route bus ridership.

A second factor affecting regular-route bus ridership in recent years has been increased competition from other modes. In 1971, Amtrak took over the national passenger rail system from the private railroads and set about creating a single national system. Initially one would have expected this development to aid the bus industry, because at its inception Amtrak operated only about half the number of trains the industry had run previously, and the system has grown very little. However, the improvements in rail service, and aggressive pricing backed by Federal subsidies have resulted in increases in rail ridership. Some of these passengers would have taken intercity buses had the passenger rail system disappeared, and bus fares in some corridors would probably be higher without the Amtrak price competition, a situation leading the bus industry to become a major foe of Amtrak funding.

Another aspect of modal competition which affected the bus industry was the increased competition in the package express business. Bus package express is provided on the regular-route services as an incidental service, but one that has played an important role in providing additional revenue with very little increase in costs. However, the growth of UPS, Federal Express, Purolator and Airborne, offering next-day service combined with pick-up and delivery, has also had an impact on bus package express. In the early 1980s many restrictions on intrastate carriage of packages by UPS were lifted, and many bus shippers began to take advantage of UPS. The bus industry has responded by arranging local pickup and delivery in some cities, but again modal competition has resulted in a revenue loss for the bus industry.

However, the major impact on the bus industry came from airline competition in the wake of the Airline Deregulation Act of 1978. This act freed airlines to operate routes and schedules limited only by airport capacity, and to compete

heavily on price. Coupled with the advanced computerized reservations systems installed by the airlines, which permit price discrimination to fill all available seats, discounted fares became available on almost all airlines. Low-fare service was also instituted by several new airlines, which utilized non-union labor and used aircraft to operate with seat-mile costs as low as those in the unionized, regulated bus industry. Carriers such as People Express invaded longer-haul bus markets such as Norfolk to New York, targeting bus riders in their advertising, and offering comparable fares. Other carriers were forced to respond, and soon discount fares were available in many city-pair markets which formerly had provided good bus ridership. The loss of many long-haul passengers to the airlines forced the bus carriers to be especially concerned about reducing any losses in their systems, and they sought the freedom to respond to Amtrak and airline competition by having their own deregulation bill.

In November 1982 the BRRRA became law, and it was widely viewed as a necessity if the industry was to continue to be a viable part of the private sector. The BRRRA provided for increased flexibility in fares, greatly reduced control over entry to and exit from the business, and perhaps most importantly, it provided for pre-emption of state regulation under a number of circumstances. Carriers who were denied permission to abandon routes at the state level could apply to the ICC for authority to abandon as long as their variable costs exceeded the revenues. Similarly, if denied intrastate rate increases, the carrier could appeal to the ICC for the increases, as long as the proposed rates did not exceed interstate rate levels. The industry moved rapidly to take advantage of these reforms, dropping service to 2,500 points in the first year alone. Intrastate rates were increased substantially, sometimes by up to 40 percent, using the pre-emption clauses in the Act.

These actions caused additional losses in ridership, as the rural areas losing service no longer fed the trunk network, and as the shorter-haul intrastate ridership dropped in response to the fare increases. These losses, coupled with the loss of long-haul riders to the airlines, created a precipitous decline in regular-route ridership, and doubts were heard about the continued viability of the industry. At the same time, the relaxation of entry controls over charters and tours resulted in a wholesale shift to the charter and tour markets, with many new low-cost firms providing only charter service. Casino and airport service also were growth markets, but carriers providing regular route service were hurt by the increased charter competition which eliminated their ability to cross-subsidize unprofitable regular-route service. Many smaller regional carriers dropped regular-route services altogether, while some others with substantial short-haul traffic were able to focus on the short-haul customer and make money. The two major national firms, Greyhound and Trailways, providing the bulk of the regular-route service, were in trouble.

The last two years have seen some major changes in the structure of the industry as a result of these difficulties. Greyhound Corporation began an effort to increase the profitability of the bus line by reducing its labor costs and its assets. This effort culminated in the rejection of a proposed national labor agreement in late 1986, which led Greyhound Corporation to sell the bus line to a group of individuals headed by Fred Currey of BusLease, Inc. The new firm negotiated a new contract, and began to focus on reviving the bus line, which operates under the name Greyhound Lines. Meanwhile, Trailways

Lines, Inc., the largest Trailways system carrier and the number two firm in the industry, began withdrawing service from entire states (rather than on a line-by-line basis) in an effort to shrink to a viable regional core. However, the firm appeared to be on the brink of bankruptcy, and was purchased by Greyhound Lines in an effort to retain the national intercity bus network.

Following the purchase, Greyhound instituted a moratorium on additional route abandonments, and began a program to interline with local rural public transit systems to allow its passengers to reach many of the same places previously abandoned. Pricing strategies were revised in an attempt to attract back many passengers lost to airlines and autos. These firms have also begun efforts to improve the quality and image of the services as well.

INTERCITY SERVICES IN VIRGINIA

The focus of this study is intercity services in the rural areas of Virginia. However, in order to understand the role of these services in rural areas, it is important to review the overall situation of the intercity surface modes. This includes both intercity bus and rail passenger services.

Intercity Bus Services

One of the major changes that has taken place in recent years is that the bulk of the scheduled regular route service in the state is now provided by the two operating arms of the one corporation, Greyhound Lines of Dallas, Texas. A pre-deregulation study of intercity bus service in Virginia found that 13 of 14 firms franchised to provide service in the state offered some regular-route service,¹ though even at that point most of the service offered was Greyhound or Trailways system members.

The same study assessed the financial position of the 14 firms with regard to the various types of service provided, finding that the only profitable type of service was charter, with losses sustained on regular-route and local services. It predicted that virtually all of the Class II and Class III² firms would cease providing regular-route service if regulation allowed.

Carrier Cost and Revenue Data

The 1981 study was able to use data on costs, revenues and operations that had been collected by the Virginia State Corporation Commission. Although the power of the Commission to order such reports remains in the law, it no longer requires any periodic data from these carriers. The only information currently on file is that required by their route authority description. At the federal level, the Interstate Commerce Commission now collects only minimal

¹Gary R. Allen, et al. Intercity Bus Service in Virginia, Virginia Highway of Transportation Research Council, October 1981, p. 51

²For accounting purposes, carriers are classified by the ICC according to the revenues they generate. Class I carriers have an average gross operating revenue in excess of \$3 million. Carriers generating revenue of \$3 million or less are classified as non-Class I carriers.

data from Class II and III carriers, and the MP-1 Annual Report form for Class I carriers applies only to their entire operations (it is not broken down by state), and it will not be required in the future. Thus the only publicly available information is that describing the services and the fares charged.

In fact, the BRRRA provided that freedom in 1982, and since that time all of the firms except Greyhound (and Trailways, its wholly-owned subsidiary) Carolina Coach Company (operating as Carolina Trailways), and Intercity Bus Lines have ceased providing meaningful regular-route service, as was seen in the previous section.

Figure 1-1 presents the intercity bus route network serving Virginia, as presented in Russell's Guide, a monthly publication, which is the only comprehensive guide to intercity bus services in North America. It includes all Greyhound and Trailways system services, and services for most independent firms that offer service as part of the national intercity bus network. Timetables are included for each firm, and these are coded to maps of the intercity network. The numbers along the routes indicate the timetable number in Russell's, and the route and service level is summarized in Table 1-1, Intercity Bus Services in Virginia.

It is important to note that this network is commercially viable, and after the many changes in the years following deregulation, relatively stable. No intercity bus routes in Virginia are currently subsidized, and the BRRRA and related changes in Virginia' State Corporation Commission regulation have basically eliminated any internal cross-subsidies that had previously been created by regulatory requirements.

Greyhound and Trailways

Greyhound Lines is now an independent firm, no longer a part of Greyhound Corporation (though the Corporation retains a 22.5% holding in Greyhound Lines). It has received ICC approval on its purchase of Trailways Lines, which includes the Trailways Lines services in Virginia. Greyhound is not looking for operating subsidies for any of these routes at this time, and the general position of the firm's corporate management is that they are not seeking general subsidies for operations, though they will bid on any services which states or localities wish to contract. As can be seen in Table 1-1, the amount of service provided by these two firms is substantial, and it has changed little in the period since the initial round of service restructuring after passage of the BRRRA in 1983.

Carolina Coach

Carolina Coach Company, operating as Carolina Trailways, is one of two remaining independent regular-route intercity carriers in the state. It is a member of the National Trailways Bus System, but it is not owned or controlled by Trailways Lines (Greyhound). Its services are coordinated with those of Trailways Lines, with shared stations, through ticketing and baggage, and common use of the Trailways name. To the consumer these services appear to be Trailways, with no distinction from those of Trailways Lines.

Figure 1-1: INTERCITY BUS ROUTE NETWORK SERVING VIRGINIA

VIRGINIA PLANNING DISTRICTS

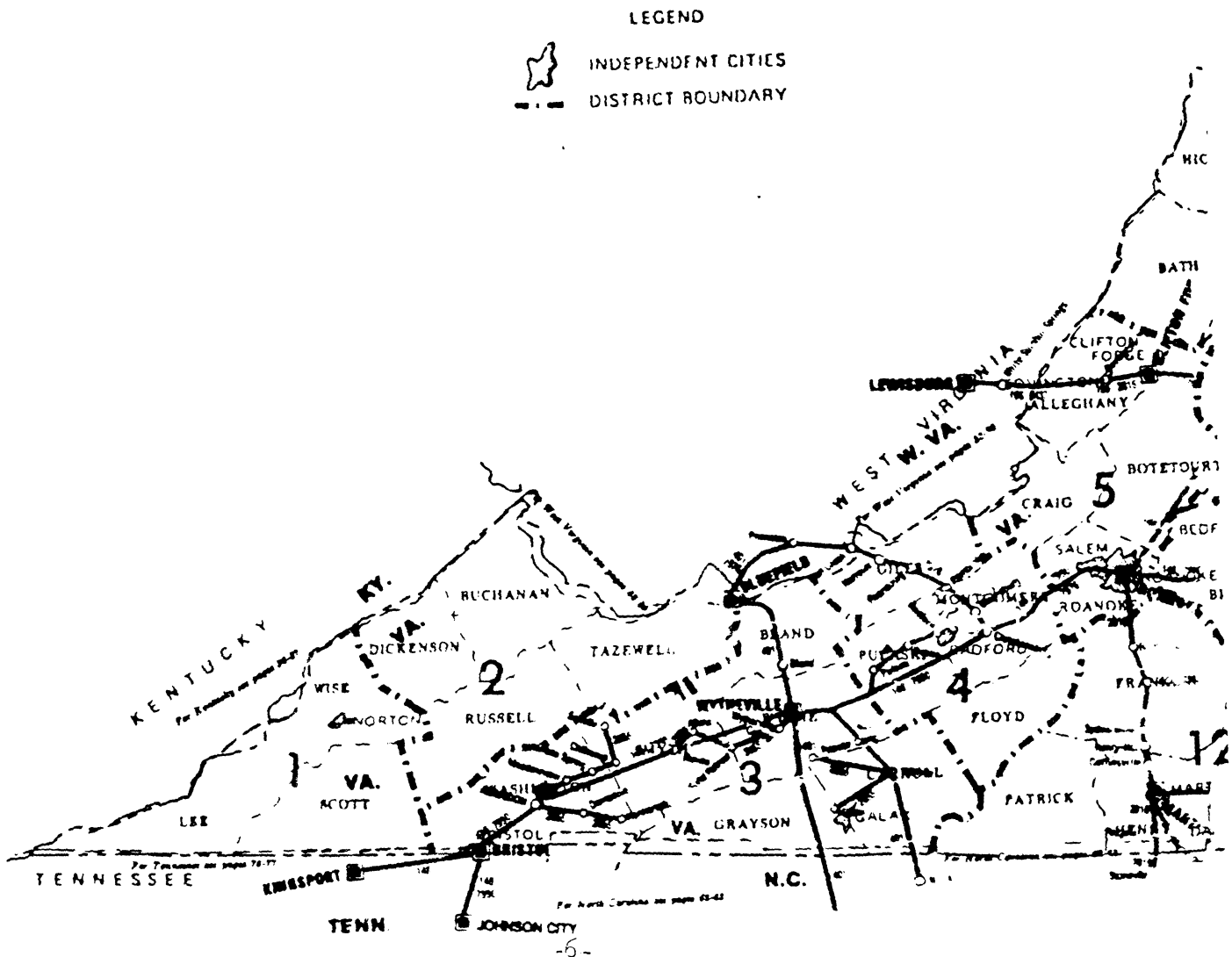


Figure 1-1 (continued)

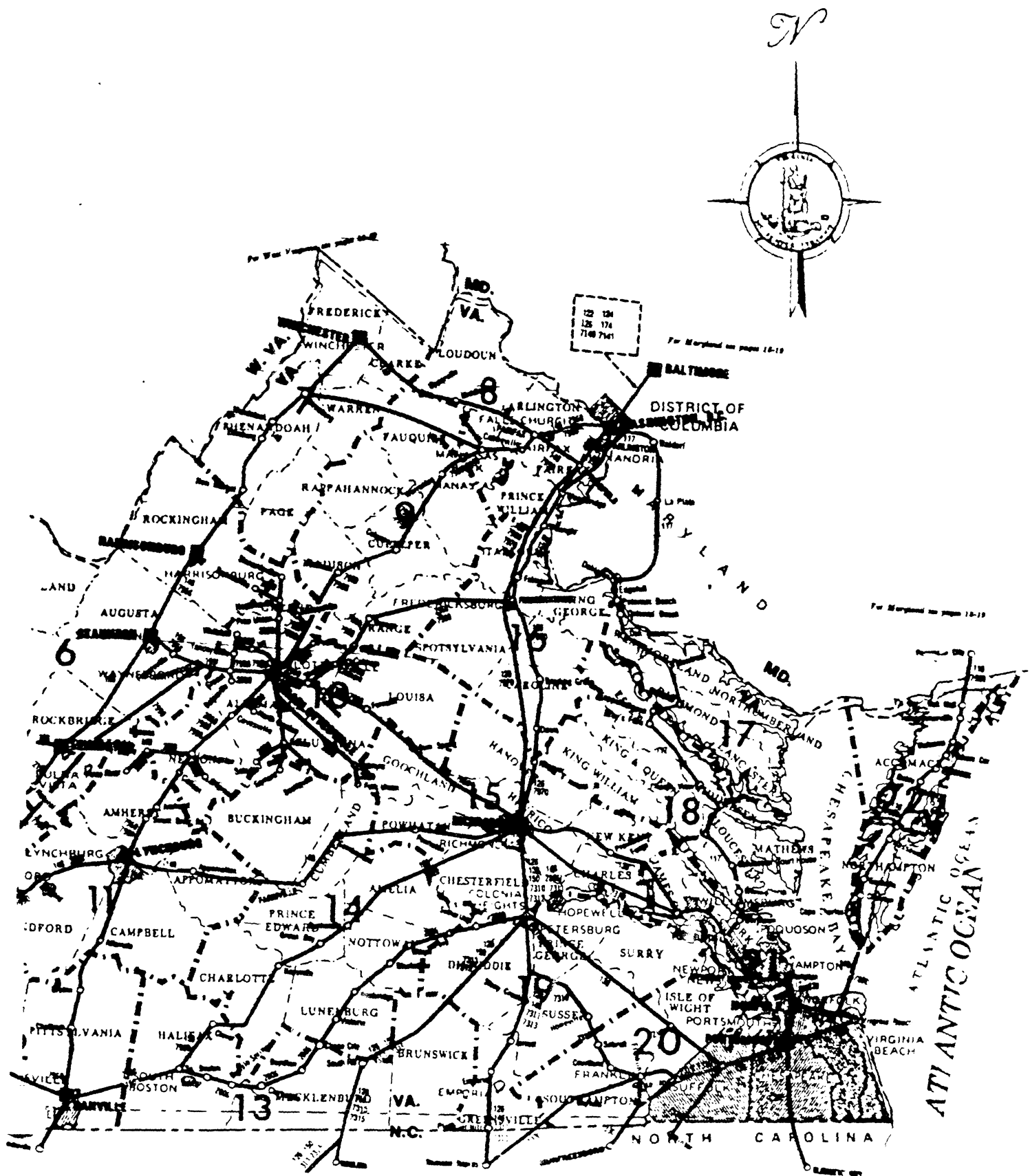


Table 1-1: SUMMARY OF REGULAR ROUTE INTERCITY SERVICES IN VIRGINIA (November 1988)

Carrier	Time Table Number	Major Points Served	Frequency
Greyhound	128	Washington]-Richmond-Williamsburg-Norfolk-VA Beach	7 trips South - 10 North (daily)
	144	Washington]-Richmond-Charlottesville*-Lynchburg-Roanoke-Wytheville	5 trips South - 7 North (daily)
	149	Washington]-Richmond-Roanoke-Blacksburg	1 round trip daily
	196	Richmond]-Charlottesville-Lexington-Clifton Forge	3 trips West - 4 trips East
	144	Washington]Winchester-Harrisonburg-Staunton-Lexington	3 trips each way daily
	401	Charleston, WV]-Bluefield-Wytheville** [Winston-Salem	3 trips each way daily
James River	2806	Richmond-Petersburg-Blackstone-Clarksville-South Boston	1 round-trip/week
Trailways	7006	Washington]Charlottesville-Richmond-Danville	9 each way daily
Carolina Trailways	7310	Richmond-Williamsburg-Norfolk	4 each way daily
	7311	Richmond-Petersburg-Emporia	6 trips South - 7 trips North, daily
	7300	Salisbury, MD]-Oak Hall-Exmore-Norfolk	3 each way daily
Intercity Bus Lines	2810	Eden]-Martinsville	2 each way daily
		Martinsville-Danville	3 each way daily
		Martinsville-Roanoke	2 each way daily

*2855 - JAUNT-Greyhound Rural Connector in the Charlottesville area

**2950 - District Three Governmental Cooperative - Greyhound Rural Connector in the Wytheville area.

Source: Russell's Official National Motor Coach Guide, November, 1988.

Carolina Trailways services are also described in Table 1-1, basically consisting of routes from eastern North Carolina through Suffolk and Portsmouth to Norfolk, and then up the eastern shore of Virginia to Philadelphia and New York; routes from Raleigh, Durham, and Fayetteville through Petersburg to Richmond (and the buses continue on to Philadelphia and New York, though under Trailways route authority); schedules from Richmond to Norfolk; schedules from eastern North Carolina to Petersburg and Richmond (continuing on to points north); and a number of schedules from Charlotte to Norfolk. Intermediate points are served on all routes. Carolina Coach is obtaining Section 18 funding from the North Carolina Department of Transportation for some services in eastern North Carolina, and so it is possible that they would apply for assistance if such a program existed in Virginia.

Intercity Bus Lines

Intercity is a small regional carrier operating out of Roanoke, Virginia, and it is really the only surviving example of the Class II and III carrier providing regional regular-route intercity bus service. Timetable 2810 in the November 1988 Russell's presents service that intercity has just restructured. This carrier provides two round-trips per day between Eden, N.C. and Martinsville, three between Danville and Martinsville, and two between Martinsville and Roanoke. The financial pressures on such services that were present in 1981 are present in greater degree now, so the continued operation of these services may be a concern.

James River Bus Lines

As indicated earlier, James River dropped virtually all its regular route service immediately following deregulation. The only remaining scheduled run is a once a week, Sunday only, round-trip from Richmond to South Boston. Such services were once run by firms seeking to keep their route authorities alive to maintain charter rights, but such reasons no longer exist, and it is not apparent why this service is operated.

Intercity Rail Passenger Services

As in the case of intercity bus services, Virginia benefits from its location between the southeast and the large cities of the northeast. Amtrak provides all the intercity rail passenger service in the United States, and it has a number of trains that serve points in the state. These include the Colonial (Norfolk-New York, via Richmond and Washington); the Virginian (Richmond-New York); the Silver Star, Silver Meteor and Palmetto (Florida to New York, via Petersburg and Richmond); the Crescent (New Orleans-New York, via Danville, Lynchburg, Charlottesville); and the Cardinal New York to Chicago via Charlottesville, Staunton, and Clifton Forge). In addition, Amtrak's Auto Train provides overnight service for passengers and their cars from Lorton, Virginia to Sanford, Florida with no intermediate stops.

Amtrak also offers dedicated bus services with guaranteed connections under the Amtrak Thruway name. Three such routes are operated in Virginia: Richmond to Charlottesville, Roanoke to Clifton Forge, and Newport News to Virginia Beach. Only "thorough" fares are available on these buses, combining bus and rail travel on a single ticket. Tickets may only be purchased from Amtrak in advance through travel agents, ticket-by-mail, or Amtrak agents.

The multiplicity of routings through the state provides good coverage compared to most states outside the Northeast Corridor. However, each of the trains runs only once a day (except the Cardinal, which is only three times per week). On the segments between Richmond and Washington this results in five trains per day each way, with three of those also operating south of Richmond through Petersburg to the state line. The segment between Charlottesville and Washington sees two trains per day each way, three days per week.

Of all these trains, only the Virginian could be used for any kind of daily commuting for work purposes, perhaps from Fredericksburg into Washington, and return. Amtrak tries to discourage daily commuters from using its trains because of its mandate to operate intercity services only, and so does not have the kind of commuter fares that would be offered by a commuter oriented rail operator.

Efforts are underway in the state to address some of the needs for commuter rail services. The Northern Virginia Transportation Commission has been instrumental in the creation of plans for commuter rail services between Manassas and Washington, and Fredericksburg and Washington. Eight trains would operate inbound in the morning rush hour, outbound in the evening rush hour. The Potomac-Rappahannock Transportation Commission district has been created to fund and administer the services in the jurisdictions that are not members of the Northern Virginia Transportation Commission. The service will be operated under contract by Norfolk Southern Railway (Manassas) and CSX (Fredericksburg). Implementation has been held up by problems in obtaining necessary liability insurance and agreement from Conrail to allow use of tracks from Potomac Yard to Union Station.

Some other potential changes in intercity rail passenger service may affect Virginia's trains. One is the proposed rerouting of the Silver Star due to a track abandonment south of Raleigh. Amtrak's preferred option is to move the Silver Star over to the route of the Crescent, which would give Virginia twice daily service each way on the Danville-Charlottesville-Washington corridor, while reducing the frequencies through Richmond and Petersburg by one a day, each way. The Cardinal may be rerouted within Virginia as well, due to a trackage abandonment.

Rail passenger service generally is not an answer to rural intercity mobility problems because of the low frequency of service and the relatively sparse coverage of the network. Where possible, bus and local transit connections should be facilitated, but evidence from other states suggests that few passengers will use intercity bus to reach Amtrak trains, unless the schedules and routes of the buses are designed to suit railroad schedules, and through ticketing and baggage is offered, as in the case of the Amtrak Thruway connections. In the few states where good data is available, it appears that intercity rail passengers have higher incomes than bus passengers, more automobiles per household, and more travel options generally. There are some cases in which rail service is provided at a point where intercity bus service is not available, which does help rural-urban mobility.

TRENDS IN VIRGINIA INTERCITY SERVICES

Virginia is fortunate in many ways, one of which is its location in the mid-Atlantic region, which has enabled it to keep much of the intercity bus

and rail service that passes through the state on routes between the north-east and points further south. However, the state has not been completely immune from service reductions which may have affected mobility, particularly in rural areas. According to the ICC, between 1982 and 1986 there was a 40 percent decline in the number of points served by intercity bus in Virginia, a percentage decline equalled only by the State of Maine.

Changes in the Number of Points Served

In order to evaluate trends in the level of intercity bus service, this study applied a methodology used by several earlier studies for this purpose. The Motor Carrier Ratemaking Study Commission, charged by Congress with evaluating the impact of bus deregulation in the year following its 1982 implementation, developed this methodology by using the Russell's Guide from the month prior to deregulation for comparison with the Guide a year later. An index of places served appears at the back of the book, and it has been used to compare the places served at different points in time.

Subsequently, the ICC used the same method in 1987 to evaluate service changes in the period from 1983-86, and in this report the same technique has been used for Virginia to compare 1988 services to the period prior to deregulation, to those available 1983, and to the 1986 findings by the ICC. Table 1-2 presents an overview of the changes. Appendix B of this report presents a complete list of those points receiving service in 1983 (prior to the implementation of the abandonments) but not in 1988. Appendix B presents a complete list of the points receiving service in 1988, but not in 1983.

Table 1-2

CHANGES IN THE NUMBER OF VIRGINIA POINTS
SERVED BY INTERCITY BUS

	Number of Places Losing Service Compared to September 1982	Number of Places Gaining Service Compared to September 1982	Net Gain or Loss
November 1983 (MCRMSC Report)	-141	+2	-139
November 1986 (ICC Study)	-150	+8	-142
November 1988 (Ecosometrics, Inc.)	-155	+66	- 89

*Sixty-one of these are places served under Greyhound Rural Connection agreements with JAUNT, Inc. and District 3 Cooperative. The remaining five are new Greyhound or Trailways service.

Service Losses

The results of this study reveal that in the first year following deregulation Virginia lost service at 141 points that had previously received intercity bus service. Thirty-six of these points had previously been served by Greyhound, five by D & M Bus Company of Danville, four by Northern Virginia Trailways, three by Carolina Trailways, four by Trailways, and the rest (89) by James River Bus Lines. In effect, James River used the new Act to eliminate its regular route services, as did D & M and Northern Virginia Trailways. Only two points gained service during that first year. Twenty-seven of the Greyhound discontinuances were flag stops or non-scheduled stops,¹ while the remaining ten were scheduled routes. Eleven were on a local route between Fredericksburg and Richmond on Route 1, which also receives service on parallel Interstate 95. Sixteen of the discontinued points were on a local route between Bristol and Roanoke. The corridor continued to have service, but not all the points were listed as flag stops or scheduled stops after the abandonment.

By 1986 only nine additional places had lost service, and by 1988 an additional five places, as the services operated by the small carriers continued to shrink. The most recent change was the reduction in service operated by Intercity Bus Lines of Roanoke in November 1988. Intercity had been operating five trips a day on portions of a route between Roanoke, Rocky Mount, Martinsville, Danville, and Greensboro (N.C.). Beginning in November, the service was restructured to serve two round trips per day from Eden (NC) to Martinsville, three round trips per day between Danville and Martinsville, and two round-trips per day from Martinsville to Roanoke. Though the routing has changed, this may actually provide better service for some portions of the route, as it increases Danville -- Martinsville service to three round-trips per day from one, and serves Eden.

Service Gains

Table 1-2 and Appendix C provide information on the points gaining service in recent years. In general, the increase in service coverage is due to the to the Greyhound Rural Connection program agreements with JAUNT, Inc. and the District Three Cooperative, which show the rural transit services operated by these agencies as part of the intercity network. Only six of the 66 places that have gained service since deregulation are not part of the Greyhound Rural Connection linkage agreements. Thus it appears that the only means of expanding the coverage of the rural intercity linkage at this point is the Rural Connection program.

This program is an innovative attempt to combine the local coverage of the rural transit provider with the intercity network of Greyhound and Trailways. The rural provider's services are included in Russell's Guide and the national Greyhound and Trailways telephone information services. This means that any bus

¹Flag stops and non-scheduled stops are indicated in the timetable by an "F" or "NS" code, with no time of arrival. They indicate that a bus passing this point will stop if a passenger waiting by the side of the road flags it down, but that there is no regular scheduled stop at that point. Such stops represent the lowest standard of service to the passenger.

agent in North American can tell potential customers how to reach points that are served by the rural operator, and can sell a through ticket to that point. The rural operator can bring in persons from the rural areas it serves to the bus station for transfer to a Greyhound or Trailways bus. The operator may share in the revenue from the ticket purchased by that customer. The rural operator is provided with advertising materials and information to promote the services locally, while Greyhound makes sure that information about the local rural services is available to agents all over the country who may have to sell a ticket to that point.

Conclusions Regarding Trends in Service

From the review of the places losing service and the coverage of the route network it can generally be concluded that,

- Small regional firms that had provided some of the service connecting small towns and rural areas have gone out of business, or shifted their resources almost completely to charters and tours. Bristol-Jenkins Bus Lines services in the southwestern part of the state have disappeared and James River Bus Line services have been curtailed to a once a week run between Richmond and South Boston. Additionally D & M and Piedmont Coach Lines (connecting Danville, Martinsville and points in North Carolina) schedules have been discontinued.
- The initial reduction in service by Greyhound following deregulation resulted in the elimination of service to some points on the primary highways paralleling the interstates. U.S. 1 south of Fredericksburg to Richmond no longer receives intercity bus service, and similar changes have taken place between Bristol and Roanoke. Thus, ...
- The only expansion of intercity service coverage has been provided by linking the points served by rural transit operators to the intercity bus services operated by Greyhound and Trailways. Greyhound is doing this under its Rural Connection program, with no state or Federal aid or support.
- The remaining Greyhound and Trailways services appear to form a stable network of commercially viable services. It is possible that as the two firms continue their merger activities some duplicative schedules or routes will be eliminated. However, the basic coverage of the network is not likely to see changes of the magnitude of those following passage of the BRRA.
- Carolina Coach and Intercity Bus Lines continue as the only two regular-route independents. Intercity has just restructured its service in an attempt to remain viable, and Carolina Coach is receiving subsidies some routes in eastern North Carolina. It is possible that at some point one or the other of these carriers might request operating subsidies from VDOT for some Virginia services.

Because of the development of a much more cooperative attitude toward rural service providers by Greyhound's new management, there are possibilities

for additional rural links with both public and private providers. The capabilities and interests of rural providers in such agreements, and their need for technical or other assistance to make such services work, should be a key concern to public policy-makers.

2

THE NEED FOR SERVICE

The relative need for intercity bus service in different parts of the state can be analyzed by reviewing the demographic characteristics of each county and city, determining which areas have higher numbers or concentrations of persons likely to need intercity bus service, and then evaluating the service available in those high need areas. This chapter presents such an analysis to determine if there are high need areas that are unserved by the current privately funded intercity bus services.

POPULATION CHARACTERISTICS

An area's need for intercity bus services or rural public transportation depends in part on the total size of the population, but also upon the characteristics of that population. When dealing with rural and intercity transportation needs, transit dependency is the general characteristic that one is attempting to measure. This calls for measuring the number of households with no car, or only one car. In addition, numerous studies of intercity bus passenger characteristics have indicated that young adults (ages 18-24) and senior citizens (65 and over) make up a disproportionate amount of the ridership, sometimes 50 percent or more.

Methodology

In order to examine these population characteristics, 1980 Census data were used to determine the number and percentage of the population with each of the following characteristics:

- young adults (16 to 24),
- senior citizens (65 and over),
- low-income persons,
- autoless households, and
- one-car households.

This information was collected for each county and city in Virginia. Although population updates provide more recent data regarding the total population of the cities and counties, current estimates of most of these characteristics (such as low-income, autoless households, etc.) are not available. As will be seen, these figures are used to develop estimates of relative need, not to develop estimates of absolute demand. For that reason, the age of the data is only a concern if one believes that there has been either a dramatic change in the population size since 1980, or a very dramatic shift in the age and income structure.

Ranking

Because many persons may fall into one or more of the categories listed above, they cannot simply be summed to give an overall picture of the size of the population that might need intercity services. As the information is to be used to indicate relative need, a procedure is followed in which each city and county is ranked according to the number of persons per square mile with such characteristics in its population, and the percentage of the population with such characteristics. By using the number of persons per square mile the density of potential need is reflected, while the use of only the percentage in the ranking provides an indication of which areas might have higher needs, even though lightly populated, based on the composition of the population.

The rankings for each category were then summed, and the sums themselves ranked to provide an overall score for each city or county. These were then categorized as high, medium, or low rankings, based on each jurisdiction's location in the overall ranking.

Needs Based on the Number of Persons Per Square Mile

Figure 2-1 presents the relative need rankings based on the number of persons per square mile with the need characteristics, and Table 2-1 presents a list of the jurisdictions in the top third of the ranking. These are the high need areas.

In general, the cities ranked at the top, with higher need based on higher population. Arlington, Fairfax, Prince William, Henrico, Roanoke, Salem, and York Counties also ranked in the top third based on density, reflecting relatively large needy populations even though they have larger areas than the cities.

These areas represent the best markets for intercity services, as they have the highest numbers of potentially needy persons in close proximity, and are therefore likely to have the highest demand for service. One would expect these places to be on the intercity network already. Appendix C presents the complete ranking, but listed alphabetically by name of jurisdiction to allow one to find the ranking of any particular city or county in the state.

Need Based on the Percentage of Persons Displaying Need

Figure 2-2 presents the rankings based on the percentage of the population displaying the need characteristics, and Table 2-2 presents a list of the jurisdictions in the top third of this needs ranking.

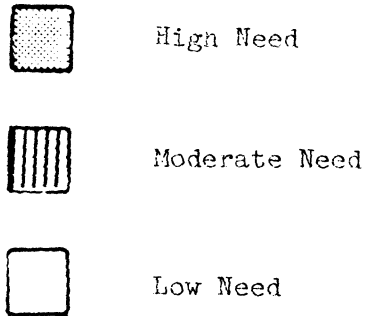
As can be seen, there is quite a difference in the need areas under this ranking. Again, many of the cities are ranked as high in need, but now, in addition, a number of the more rural areas are also ranked as higher in need. These include Lee and Wise Counties in the west, Halifax, Charlotte, Prince Edward, Buckingham, Cumberland, Nottoway, Lunenburg, Brunswick, Greenville, Sussex, Surry, Southampton, York, Westmoreland, Lancaster, Northampton, and Accomack Counties are scored in the high need category. Appendix D presents the complete ranking based on percentage, arranged alphabetically.

Table 2-1
 RANKING OH HIGH NEED AREAS BASED ON NUMBER
 OF PERSONS PER SQUARE MILE

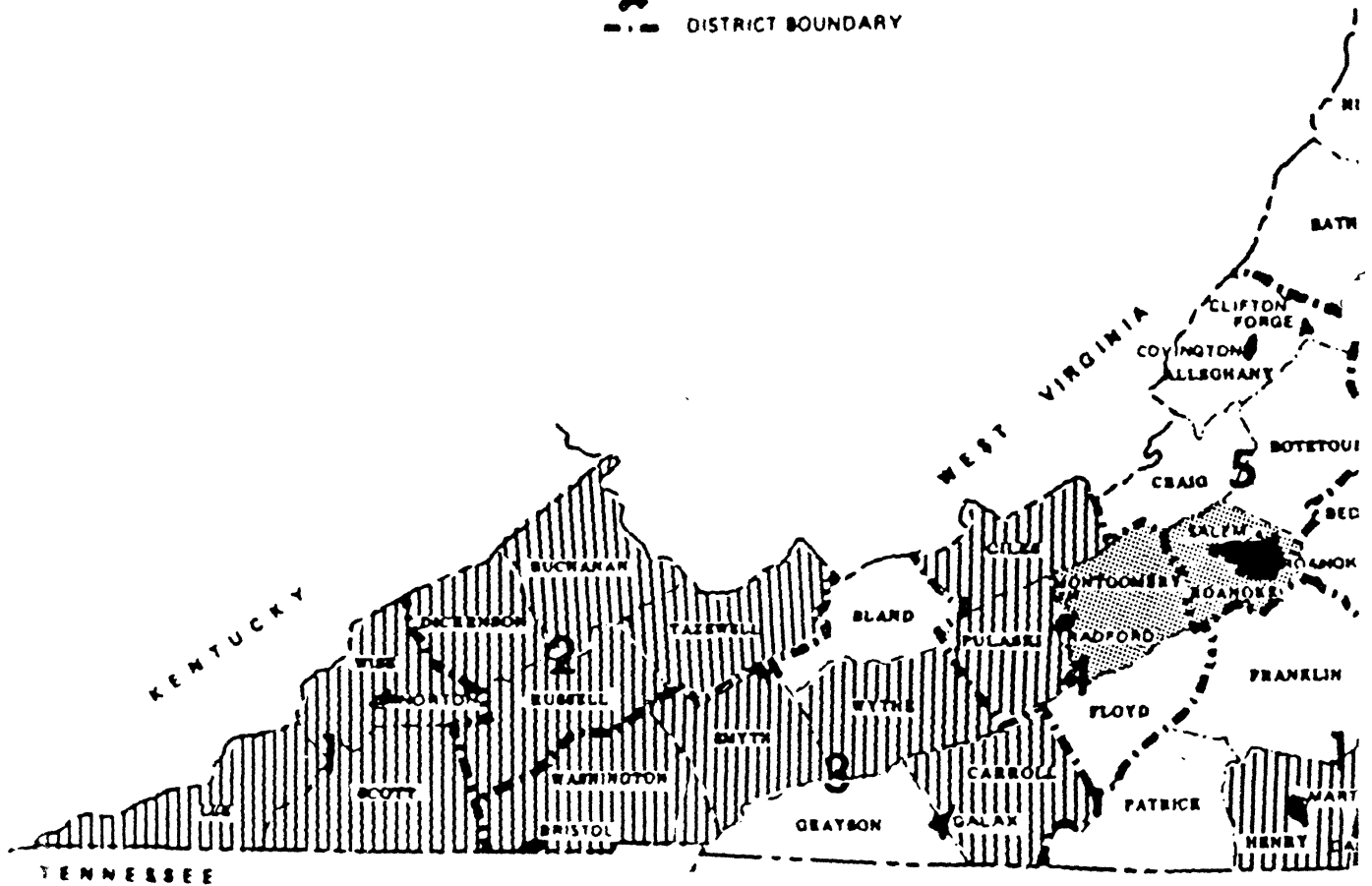
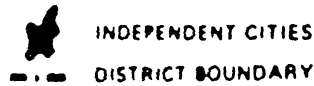
PLACE	RANK
Alexandria City	1
Norfolk City	2
Arlington County	3
Charlottesville City	4
Richmond City	5
Lexington City	6
Portsmouth City	7
Falls Church City	8
Danville City	9
Harrisonburg City	9
Fredricksburg City	10
Emporia City	11
Roanoke City	12
Winchester City	13
Covington City	14
Hopewell City	15
Staunton City	16
Petersburg City	17
Newport News City	18
Franklin City	19
Hampton City	20
Buena Vista City	21
Williamsburg City	21
Clifton Forge City	22
Fairfax City	23
Martinsville City	24
Bristol City	24
Waynesboro City	25
Radford City	25
Manassas Park City	26
Lynchburg City	27
Salem City	28
Colonial Hights City	29
South Boston City	29
Manassas City	30
Bedford City	31
Galax City	32
Norton City	33
Fairfax County	34
Virginia Beach City	35
Henrico County	36
Chesapeake City	37
Poquoson City	37
Roanoke County	38
Montgomery County	39
York County	40
Prince William County	41
Suffolk City	42

Figure 2-1: NEED BASED ON NUMBER OF PERSONS PER SQUARE MILE
 DISPLAYING NEED CHARACTERISTICS

VIRGINIA PLANNING DISTRICTS



LEGEND



Source: Ecosometrics, Incorporated Analysis of 1980 Census Data.

Figure 2-1 (continued)

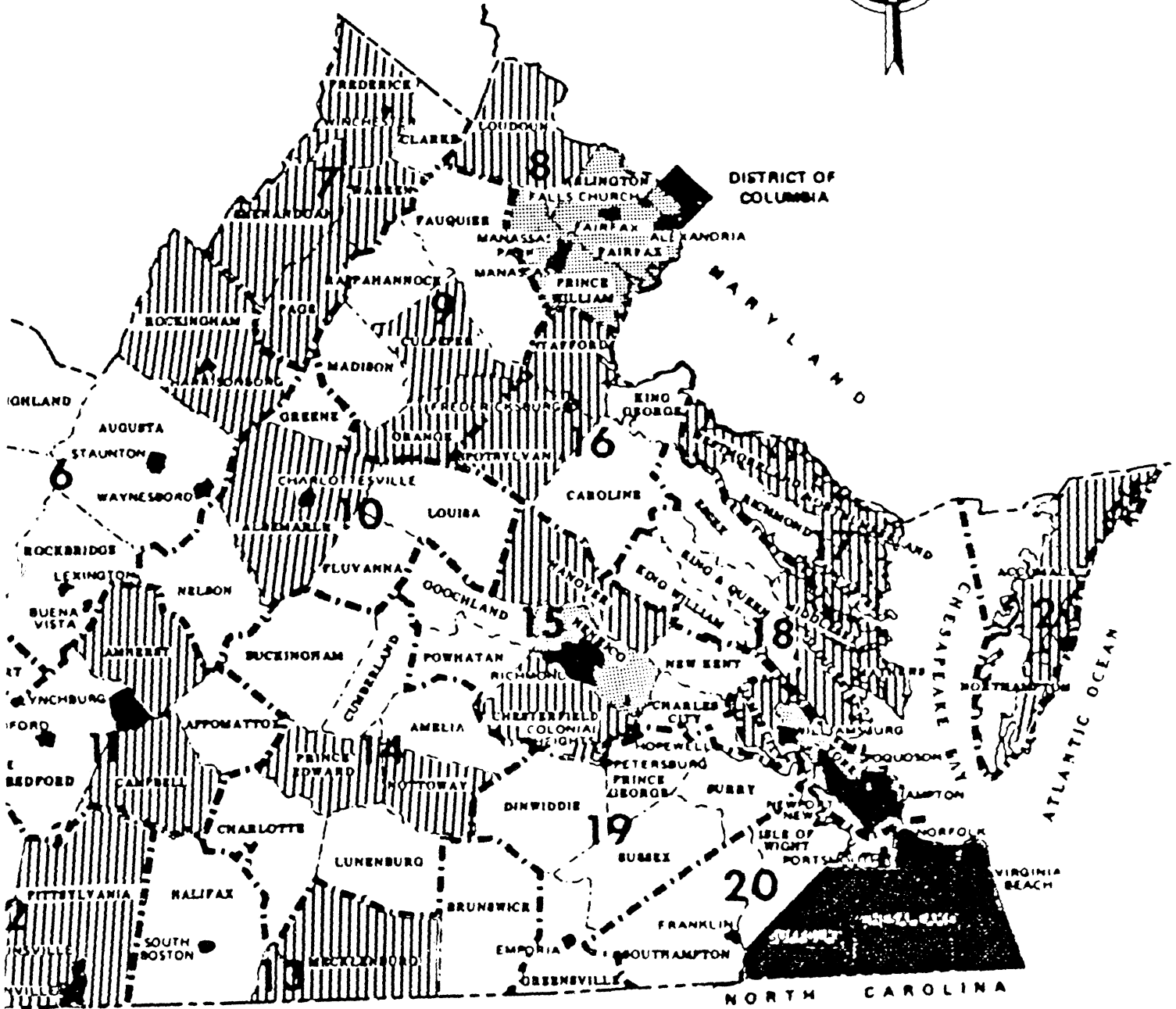
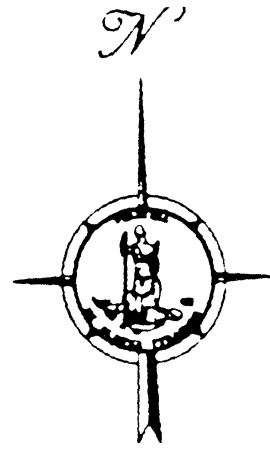







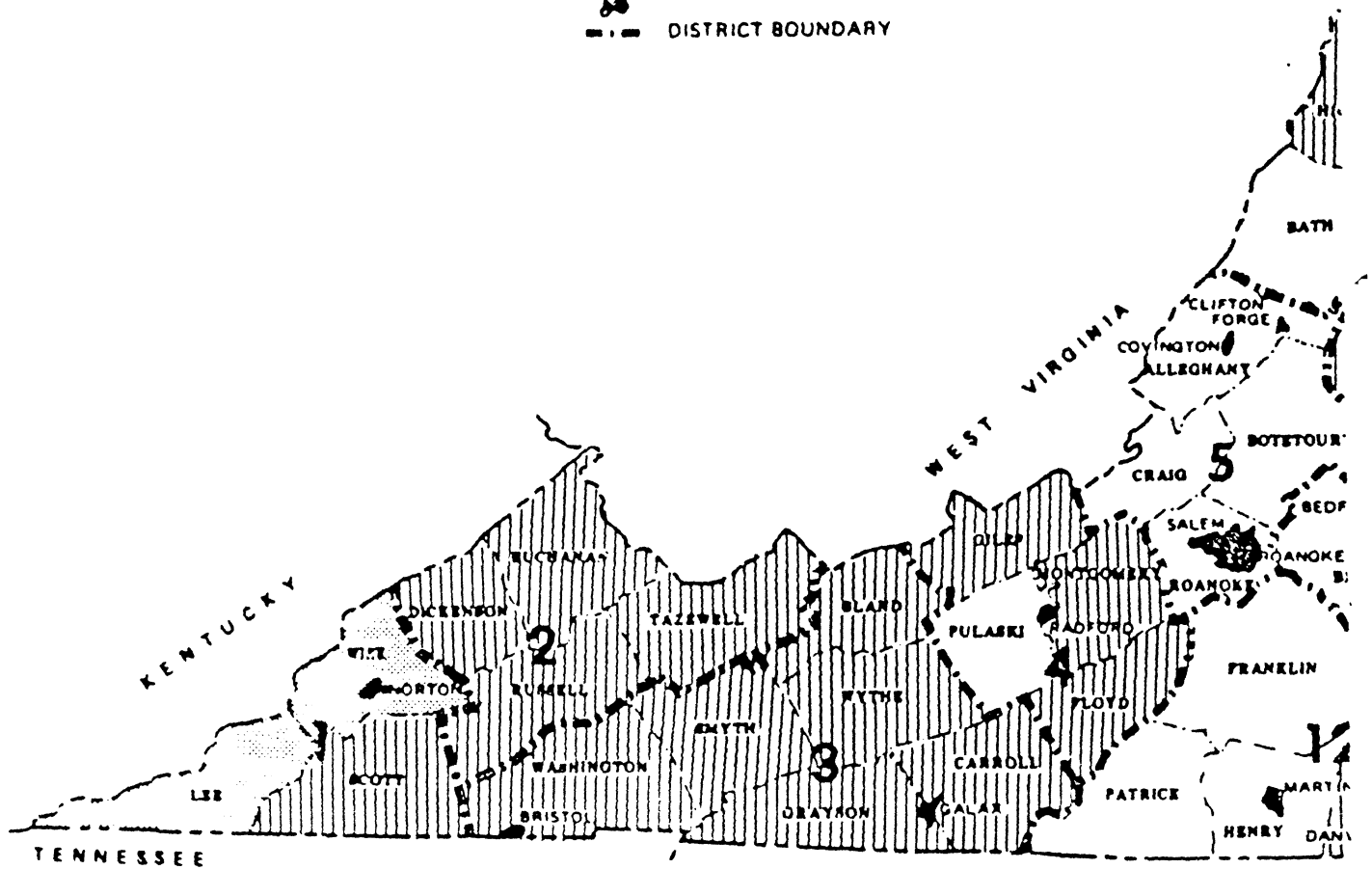
Figure 2-2: NEED BASED ON PERCENTAGES OF THE POPULATION
 DISPLAYING NEED CHARACTERISTICS

VIRGINIA PLANNING DISTRICTS

-  High Need
-  Moderate Need
-  Low Need

LEGEND

-  INDEPENDENT CITIES
-  DISTRICT BOUNDARY



Source: Ecosometrics, Incorporated Analysis of 1980 Census Data.

Figure 2-2 (continued)

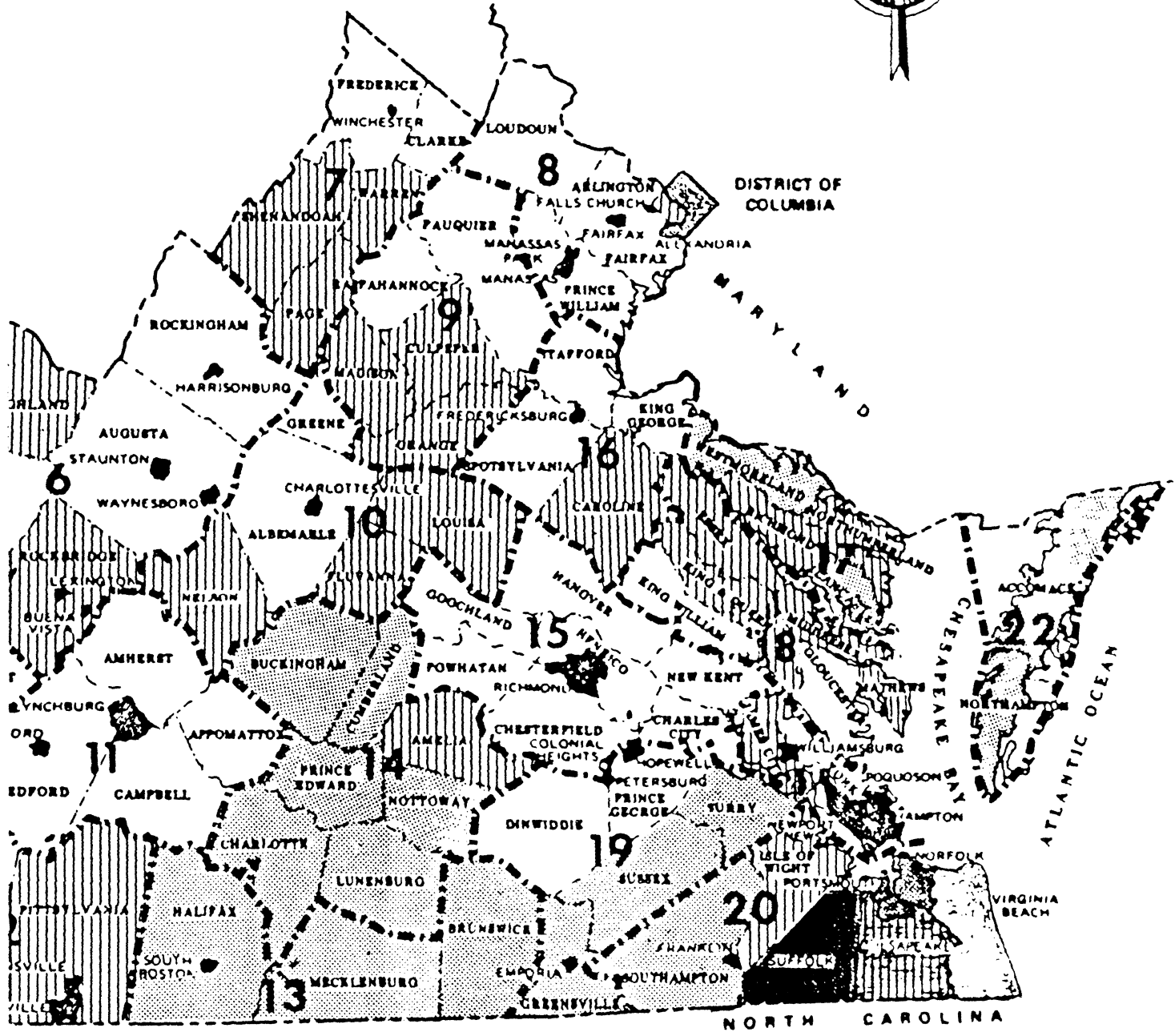
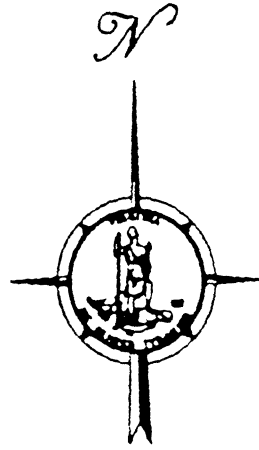


Table 2-2
 RANKING OF HIGH NEED AREAS BASED ON PERCENTAGE
 OF PERSONS WITH NEED CHARACTERISTICS

PLACE	RANK
Richmond City	1
Northampton County	2
Charlottesville City	3
Winchester City	4
Petersburg City	5
Prince Edward County	6
Fredricksburg City	7
Bristol City	8
Roanoke City	9
Norfolk City	10
Franklin City	11
Portsmouth City	12
Lynchburg City	13
Brunswick County	14
Lexington City	15
Emporia City	16
Danville City	17
Norton City	18
Lee County	19
Accomack County	20
Galax City	21
Clifton Forge City	22
Bedford City	23
South Boston City	24
Martinsville City	25
Covington City	26
Mecklenburg County	27
Harrisonburg City	28
Sussex County	29
Hopewell City	30
Staunton City	31
Surry County	32
Nottoway County	33
Suffolk City	34
Newport News City	35
Buckingham County	36
Lunenburg County	37
Westmoreland County	38
South Hampton County	39
Lancaster County	40
Greensville County	41
Cumberland County	42
Halifax County	43
Charlotte County	44
Wise County	45

HIGH NEED AREAS AND LOCATION OF INTERCITY AND RURAL SERVICES

The next step in the methodology is to determine whether or not the areas found to be highest in need are served by the current intercity bus network, and whether or not they have local or regional rural public transit services. If a high need area is not on the intercity network, but has local transit, one service option is to have the local provider feed passengers to and from the nearest intercity bus service point. If it has neither local transit or intercity service, it would appear that state support for any local transportation initiatives (either local service or an intercity link) would be warranted.

Availability of Intercity Service to High Need Areas Based on Density

Figure 2-3 presents an overlay of the state's intercity bus network on the map of need areas, based on density of population with high need characteristics. The current network provides service in all of the high need counties, and serves the high need cities as well. This is exactly what would be expected, given that the network under deregulation reflects the market demand for services, and these are the locations with the highest demand potential.

Some of the moderate need counties are not directly served, however, such as Northumberland and Lancaster on the Bay, and Lee, Wise, Scott, Dickenson, Buchanan, and Russell in the far west.

Availability of Intercity Service to High Need Areas Based on Percentage

Figure 2-4 presents an overlay of the state's intercity bus network on the map of need areas, based on percentage of the population having high need characteristics. Surprisingly, the high need rural counties generally are served, though on services with relatively few stopping places. Once again, Lee and Wise Counties are left without service, and Buckingham in the center of the state has nearby services, but nothing actually stopping in the County. Lancaster County is also a high need county under this criteria, and is unserved by any intercity bus routes.




Some of the moderate need counties under this analysis are off the intercity network. Again, the southwestern counties in Planning Districts 1 and 2 -- Scott, Dickenson, Buchanan, Russell, and Tazewell -- are not served. Highland County shows moderate need, and is unserved. Pittsylvania, a moderate need county, is served in part by Intercity Bus Lines, and thus may be vulnerable if current service restructurings do not prove successful. It does retain Trailways service, however.

Relationship of Local and Regional Transit to Need Locations



Figure 2-5 presents a map of the intercity bus network overlaid on a map showing the location of public transportation operators in the State of Virginia. If this map is compared to the previous figures, it is apparent that some of the need areas are served by local systems. District 3 has local service that is part of the Greyhound Rural Connection program, allowing residents to use District 3 services to reach Greyhound and Trailways stopping points in the region. JAUNT provides similar service in Planning District 10.

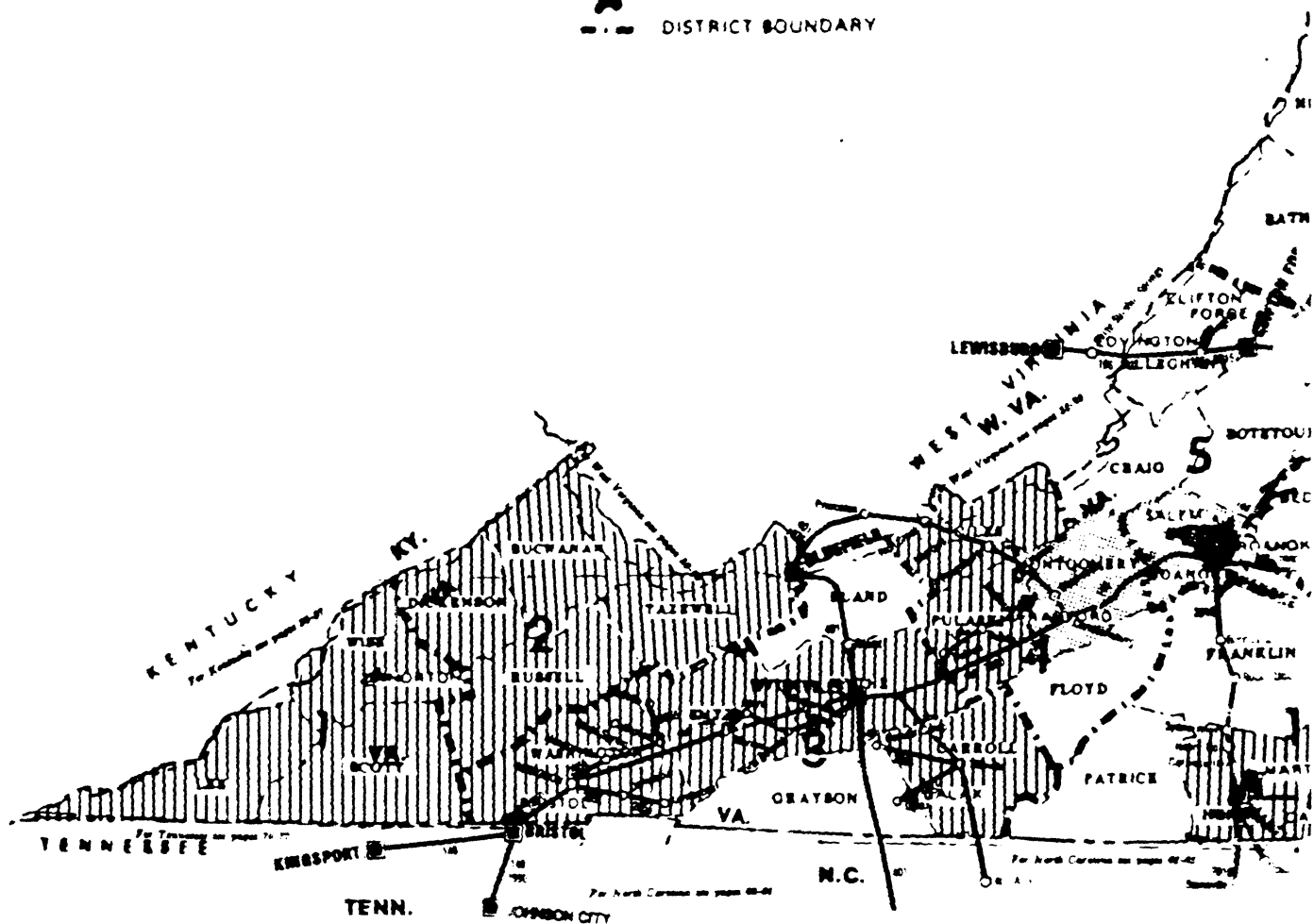
Figure 2-3: OVERLAY OF INTERCITY BUS NETWORK ON HIGH NEED AREAS BASED ON DENSITY

VIRGINIA PLANNING DISTRICTS

-  High Need
-  Moderate Need
-  Low Need

LEGEND

-  INDEPENDENT CITIES
-  DISTRICT BOUNDARY



Source: Ecosometrics, Incorporated Analysis of 1980 Census Data and 1988 Russell's Guide

Figure 2-3 (continued)

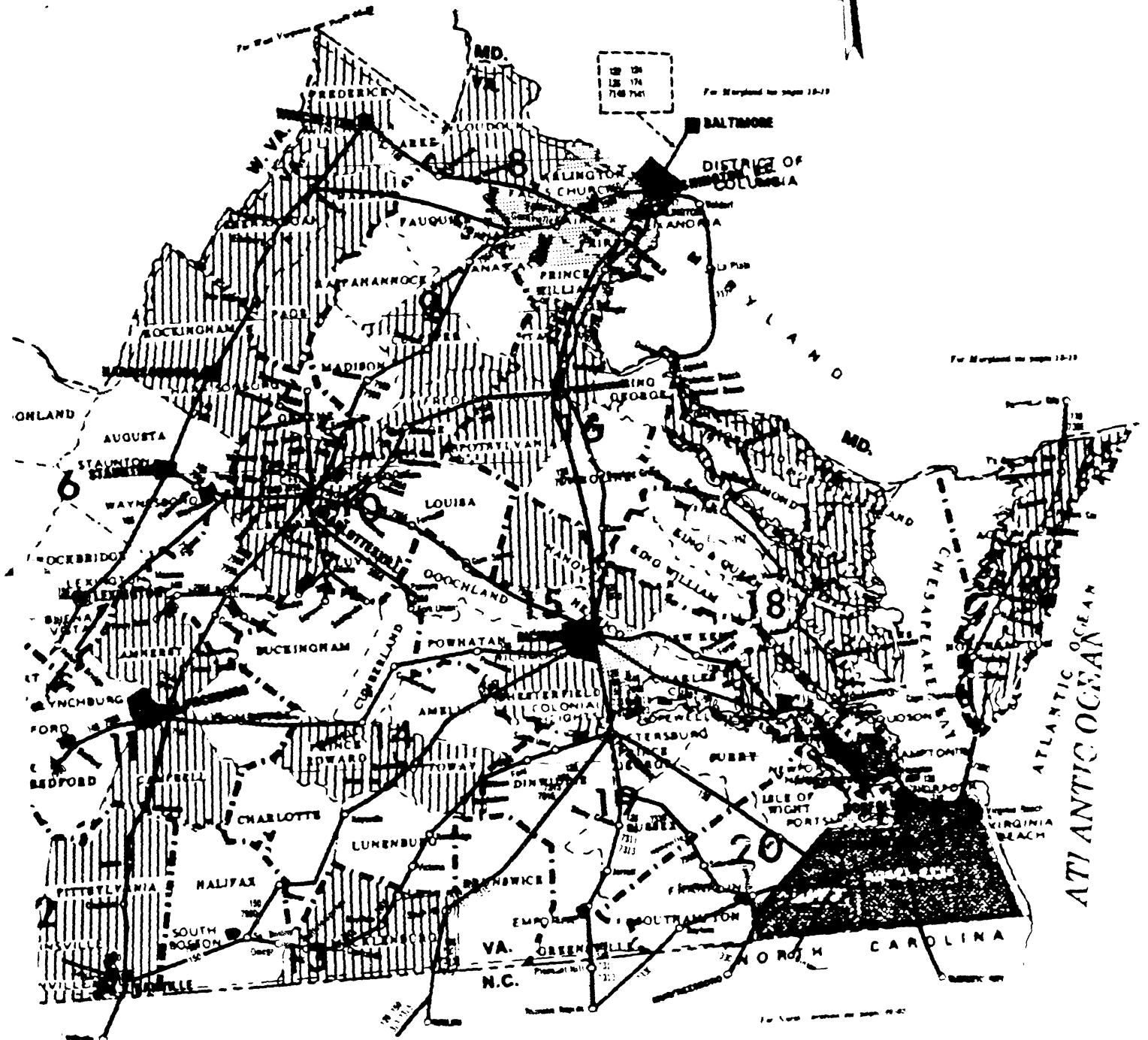
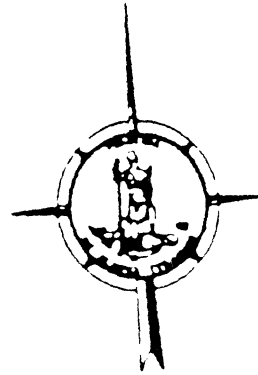







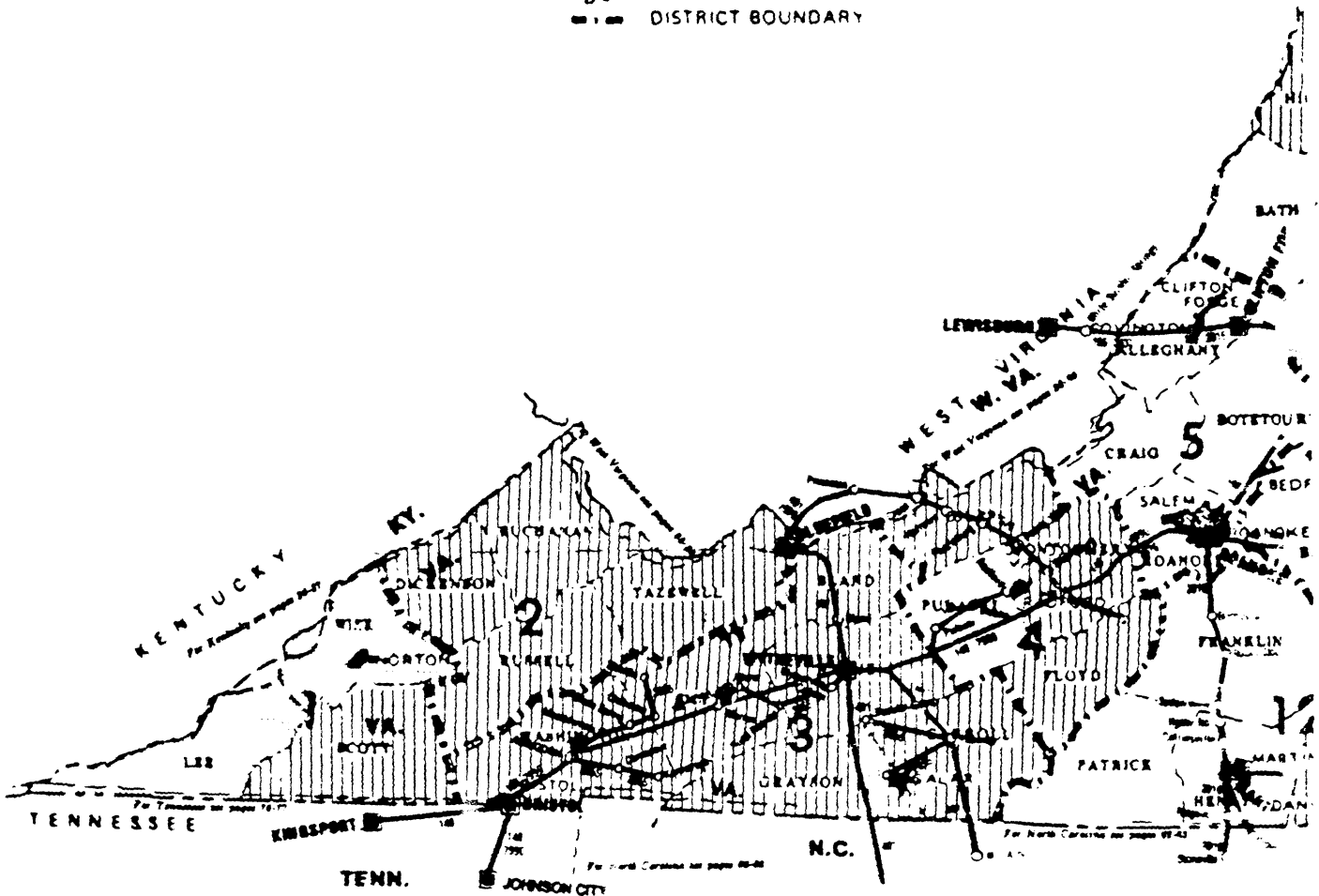
Figure 2-4: OVERLAY OF INTERCITY BUS NETWORK ON HIGH NEED AREAS BASED ON PERCENTAGE OF POPULATION WITH HIGH NEED CHARACTERISTICS

VIRGINIA PLANNING DISTRICTS

-  High Need
-  Moderate Need
-  Low Need

LEGEND

-  INDEPENDENT CITIES
-  DISTRICT BOUNDARY



Source: Ecosometrics, Incorporated Analysis of 1980 Census Data and 1988 Russell's Guide

Figure 2-4 (continued)

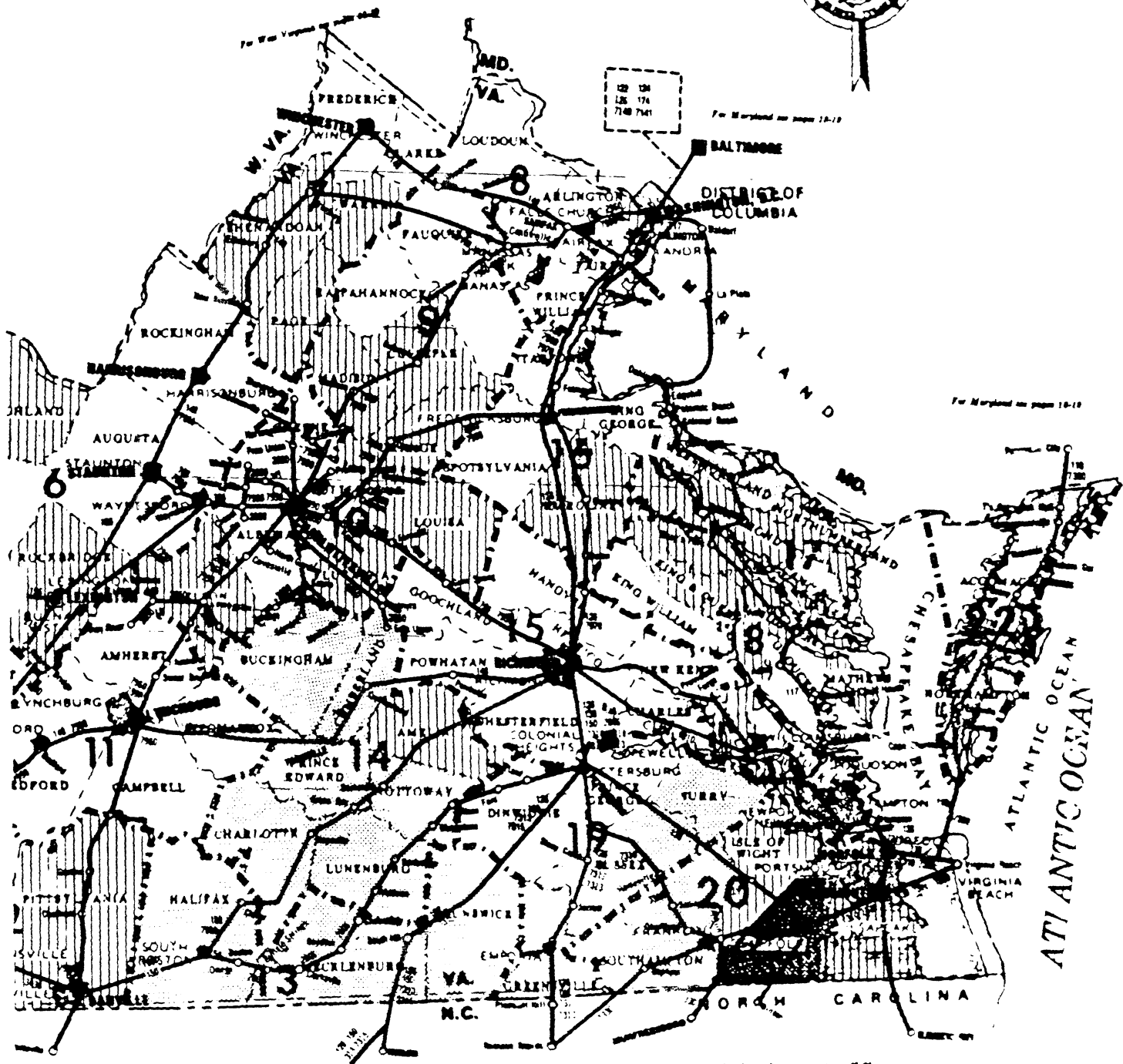
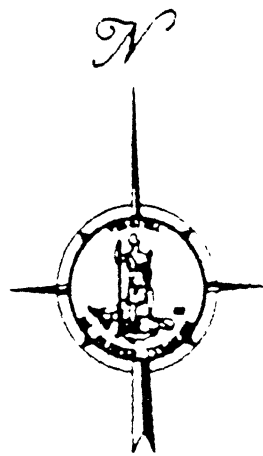


Figure 2-5: OVERLAY OF INTERCITY BUS NETWORK ON LOCATION OF LOCAL TRANSIT OPERATORS

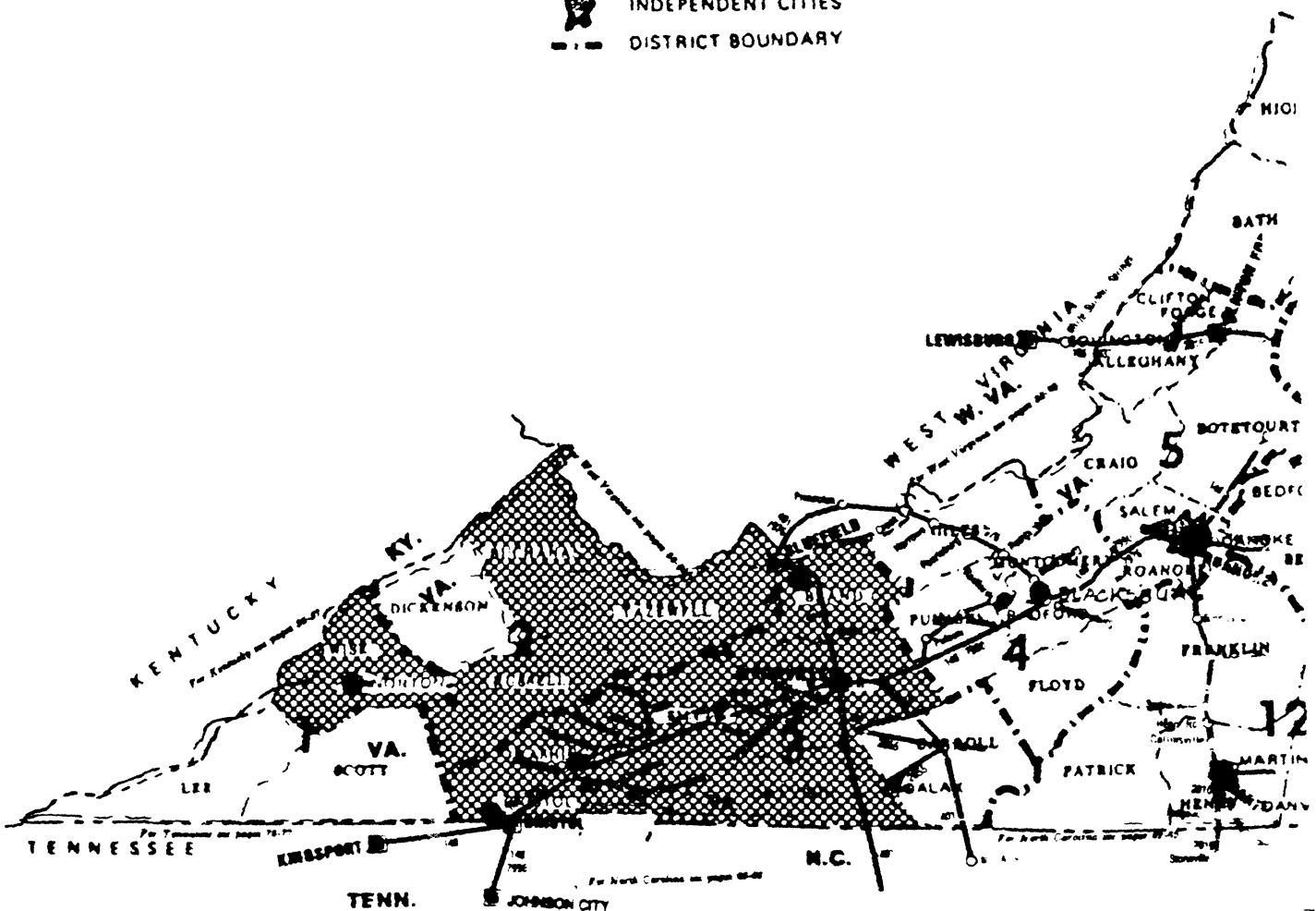
VIRGINIA PLANNING DISTRICTS

● Cities Served

▣ Counties Served

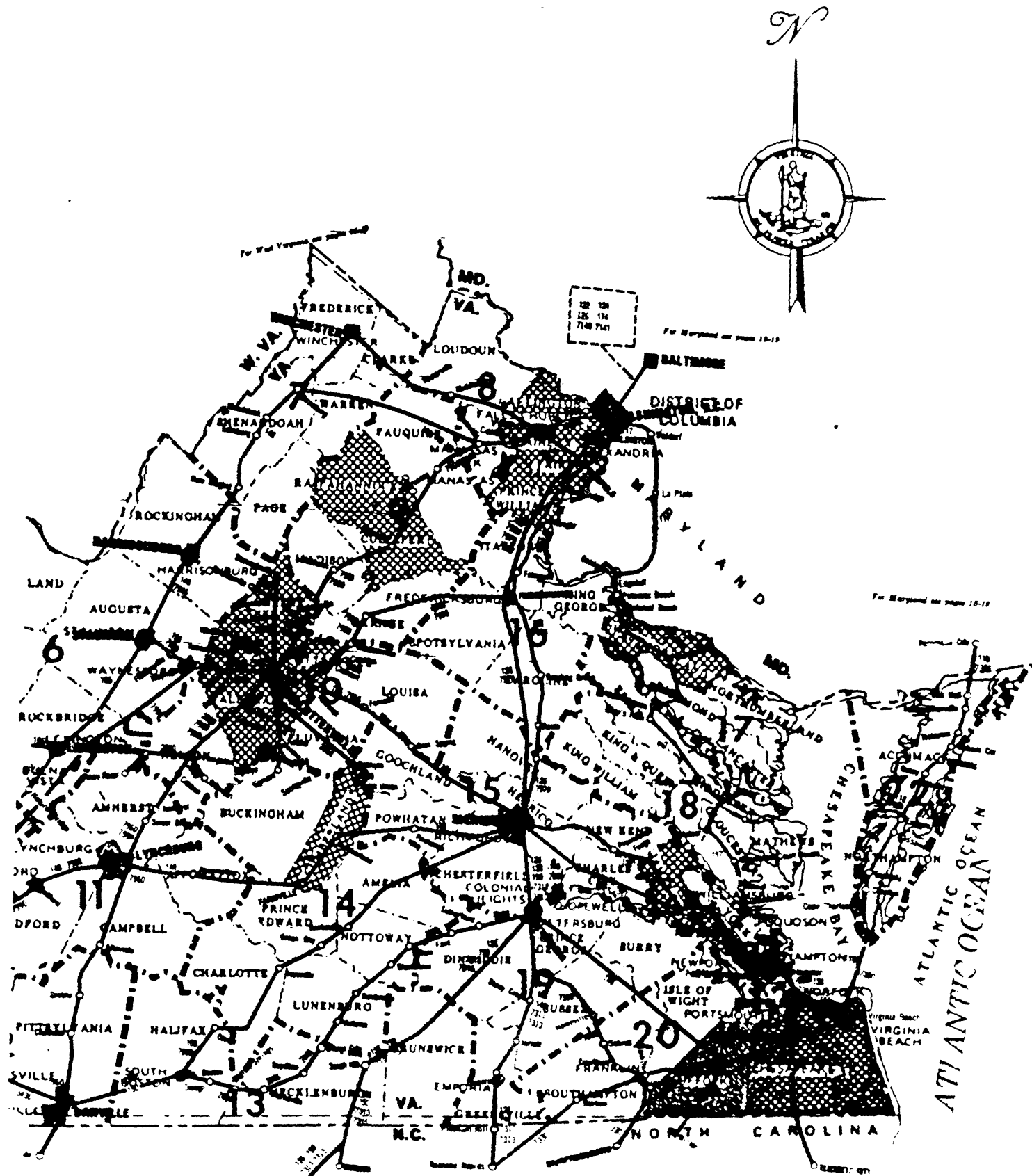
LEGEND

★ INDEPENDENT CITIES
 - - - DISTRICT BOUNDARY



Source: October 1988 Russell's Guide., and the 1988 Virginia Public Transportation Directory, VDOT.

Figure 2-5 (continued)



This map suggests opportunities for similar connections elsewhere in the state. A number of the rural operators have systems that lie astride intercity bus routes, and could become Greyhound partners to provide for some additional rural intercity mobility. Some potential rural partners and possible connecting points include:

- Central Piedmont Action Council (Cumberland)
- Clearfork Community Association/Town of Pocahontas (Bluefield)
- Colonial Beach Transit System (Colonial Beach)
- Gateway Regional Transit Authority (Bluefield)
- Town of Bluefield (Bluefield)
- Greene County Transit (Charlottesville -- JAUNT also connects)
- James City County Transit (Williamsburg -- station already served)
- Rappahannock-Rapidan Community Service Center (Culpepper)
- Russell County Public Transportation (Abingdon)
- County of Tazewell (Bluefield)
- Winchester Transit System (Winchester)

In some cases, such as James City County or Winchester, existing services may already go to or near the intercity terminals. However, when local services join the Greyhound Rural Connection program, the inbound intercity bus passenger is made aware that these alternatives exist, because the information about their services is included in Russell's Guide and the Greyhound national telephone information system. The additional local joint marketing using Greyhound supplied materials may also make local residents aware of both the local transit services and the intercity options that are available.

Some of the other high need areas that have local service include Wise and Buchanan Counties. However, these counties are located far from the nearest intercity bus stops, and the local systems would have to operate substantial long-distance service to connect to the intercity system. Combining such trips with long-distance medical trips might make them feasible, but the service might be quite costly to the user.

This comparison also suggests that there are a number of areas in Virginia with a high need for some form of rural public transportation, but with have no current public transportation system. Most are likely to have some human service agency transportation options, which will be identified in another study for the Virginia Department of Transportation. However, in these areas existing VDOT programs should be utilized to make sure that local services are coordinated and expanded to serve the most important local needs before any effort is made to promote intercity connections.

RURAL TO URBAN COMMUTER BUS MARKETS

While the purpose of this report is to address rural intercity mobility needs, data have been collected to shed some light on possible markets for rural to urban commuter bus transportation. In this case the age of the 1980 Census data may well be of concern, because of the shift in residential location to outlying counties over the last ten years. However, more recent data are not readily available.

Table 2-3 presents a list of the top 25 jurisdictions in terms of the absolute number of out-of-county commuters. As might be expected, the general pattern is one that includes the counties in the suburbs of Washington, the counties just beyond the suburbs; the peninsula from Richmond to Newport News and Hampton; areas west of Roanoke, Roanoke itself, and Bedford County; and a couple of other areas.

Clearly this analysis only provides the barest indication of the possible needs for this type of service. It is included here because long-distance commuter bus service is one of the few growth markets for the private bus operators, and to suggest that further research in this market needs to be done. Current study efforts underway in James City County and York County may result in recommendations about some long-distance commuter programs, and the Northern Virginia Transportation Commission has sponsored a study of potential markets for luxury commuter bus service, finding Loudon County to be a prime site for such operations. However, no statewide needs analysis of this type has yet taken place, and it is beyond the scope of this study.

CONCLUSIONS REGARDING NEED AND AVAILABILITY OF SERVICES

This analysis, combining census demographic data with route location information, has attempted to determine if there are particular counties with high needs for rural or intercity bus transportation that do not also have service available. In general, areas of high need do have service, with some exceptions noted in this chapter. Particularly in the far western counties, there are high need areas located far from the intercity network.

Needs for long-distance commuter service, although not extensively analysed in this study, are concentrated in the counties just outside the Washington suburban jurisdictions, such as Loudon, Prince William, and Stafford; on the peninsula between Richmond and Newport News, such as York and James City Counties; and the Norfolk area. These markets have both a high percentage of out-of-county (or city) employment, and large absolute numbers of such persons. Ongoing planning efforts in James City County, York County, and Northern Virginia should be addressing these needs in a more detailed fashion -- a more detailed statewide commuter bus needs assessment may be called for to aid both the jurisdictions and potential private operators to serve this market.

Table 2-3
 RANKING OF VIRGINIA COUNTIES AND INDEPENDENT CITIES ON
 NUMBER OF OUT-OF-COUNTY COMMUTERS

County	Out of County Commuters	Rank
Fairfax County	181,243	1
Virginia Beach City	58,282	2
Henrico County	56,813	3
Arlington County	54,429	4
Prince William County	45,612	5
Chesterfield County	45,169	6
Alexandria City	40,423	7
Norfolk City	39,540	8
Chesapeake City	31,454	9
Roanoke County	25,735	10
Newport News City	20,407	11
Hampton City	19,243	12
Richmond City	17,603	13
Pittsylvania County	16,672	14
Albemarle County	15,763	15
Hanover County	15,307	16
Portsmouth City	14,218	17
Augusta County	14,165	18
Rockingham County	13,570	19
Loudoun County	13,177	20
Stafford County	12,967	21
Henry County	12,871	22
Campbell County	12,735	23
York County	11,193	24
Bedford County	10,794	25

Source: 1980 Census.

3

STATE AND LOCAL ROLES REGARDING RURAL INTERCITY MOBILITY

The previous chapters have presented information about the current state of intercity services in Virginia, the amount and location of service losses following deregulation, and the areas of the state likely to have higher needs for rural public transportation of some type. In this chapter, information will be presented regarding the current role of the state and local governments with regard to intercity services, activities that have been undertaken in other states, and a recommended course of action for Virginia.

CURRENT STATE ROLE

Historically most states, including Virginia, have had a regulatory role with regard to intercity bus and rail services. Over the last 10-12 years a number of states have also undertaken another role to provide some types of assistance to the bus industry in order to maintain rural services or develop rural to urban commuter services. Virginia's efforts to support such services will also be discussed.

Regulatory Role

The intercity bus industry in Virginia continues to be regulated at the state level by the State Corporation Commission (SCC), though the extent of that regulation has changed considerably in the wake of the Federal BRRRA. That Act pre-empts state regulation of entry, exit, and fares in a number of ways, and Virginia has adapted its practices to avoid conflicts with the Federal regulation.

Entry

Prior to the BRRRA, the SCC controlled entry to the market by specifying that firms needed a certificate of convenience and necessity showing that the services were needed. Existing carriers were given every opportunity to provide service if such a need were shown. Thus, this requirement effectively limited entry, and gave the firms holding the existing route authority a means of preventing competition.

These statutes are still on the books, and carriers are required to obtain a certificate, and file their route authorities with the state. However, the BRRRA allows carriers seeking to enter markets already served to obtain intra-state operating rights if the intrastate passengers are served on interstate operations. Most intercity bus companies serving the state are interstate, and so entry is now effectively open, except for services that are completely intrastate in nature.

An exception to even that remaining limited regulation of entry is that urban-suburban bus lines (defined in Code of Virginia, §56-281 as a service with a majority of its passengers travelling less than 40 miles daily one-way between home origin and work, shopping or school destinations) are not in competition with certificated carriers, and are not subject to adequacy of service requirements. Thus rural or suburban to urban lines, which might be entirely intrastate, are also not regulated with respect to entry by the SCC.

Exit

The other side of the coin with respect to entry, exit controls were used in the past by states as means of enforcing cross-subsidies between profitable routes and unprofitable rural or commuter services. By refusing to allow abandonment of services in cases where the public objected, the SCC could force a carrier to use profits from charters or heavily traveled routes to offset losses, and preserve rural services. Many carriers in Virginia, particularly the Class II and III carriers, continued their rural services up to the passage of the BRRRA in the belief that the SCC would not permit abandonment unless the firms also gave up their charter authorities.¹

This was not in fact true, but it preserved services operated by the small firms for many years after they became unprofitable. Losses on the rural routes operated by firms such as James River, D & M, Intercity, and others were made up by profits on charters. However, as the 1981 report on the state's intercity bus industry noted, increasing charter competition was eroding this source of profits, as both the ICC and SCC began to give certificates for charter operations only in the late 1970's.

The BRRRA recognized this erosion, and it provided for free exit from the regular-route business by pre-empting state control over exit. Firms could apply to the SCC for abandonment of regular-route services, and if they were denied, the firm could appeal the decision to the ICC. If the variable costs of operating the service exceeded the revenues attributable to it, the ICC would permit abandonment. As we have seen, this resulted in the loss of service to 141 places in Virginia in the first year after deregulation, with some additional losses in the ensuing years. In effect, the BRRRA ended state control over exit.

Rates

Similarly, prior to 1982 intrastate fares were regulated by the SCC, which used an operating ratio method of regulation to determine whether proposed intrastate rate increases were justified. In general, this resulted in intrastate rates that were below interstate rate levels for the same length trip. Lower intrastate rates had the effect of subsidizing the short-haul, intrastate passenger with revenue from similar passengers who were crossing state lines, and paying higher fares as a result.

¹Gary Allen, et al. "States of Intercity Bus Service in Virginia and Anticipated Impacts of Regulatory Reform." Transportation Quarterly, Vol. 36, No. 4, October 1982, p. 600.

The BRRRA recognized this situation as a burden on interstate commerce, and allowed for ICC pre-emption of state rate cases. Firms could file for intrastate rate increases with the SCC, and if denied at the state level they could file for the same increase at the ICC. The increase would be granted as long as the rates did not exceed interstate rate levels. The states, including Virginia, soon recognized that state rate cases were a waste of time, and so the state's rate regulation is now largely limited to the proper filing and publication of rates for intrastate services, rather than setting the level and structure. With the end of the state role in setting fares, the importance of financial and operating reports to the SCC ended, and so such data is no longer available.

Other Regulations

The state maintains a number of other regulations regarding aspects of service quality, duties of a carrier, proper filings of authorities, insurance requirements, etc. However, meaningful economic regulation of the intercity bus industry has ended, pre-empted by the Federal BRRRA. Regulation is not a feasible tool for addressing rural intercity mobility needs in Virginia.

OTHER PROGRAMS IN VIRGINIA

Virginia has an extensive program combining state and federal funding to provide capital to rural and urban public transit operations in the state. In addition, Federal operating assistance is available for urban and rural systems, and the state provides assistance with fuel, tire and maintenance costs. To date, none of these funds have been directed toward any type of rural intercity services, though a number of the long-distance commuter operations based in urban areas do reach out to the more rural areas. This study is being undertaken to assess the need for such programs, and to present alternatives should the state decide to include the rural-to-urban intercity linkage in its overall public transportation program. For that reason, examples of state programs from around the nation will be presented in the next sections.

FUNDING SOURCES

In general, sources of funding for the operation of bus services include the users, through fares and package shipping fees, local governments, state government, and federal sources. Historically, intercity bus service has been provided by private carriers, who funded the operations from user charges, and from cross-subsidies that were made possible by federal and state regulation. As indicated earlier, those cross-subsidies are no longer available, primarily because of the passage of the federal BRRRA and its state pre-emption clauses. Similar changes in the availability of cross-subsidies to support rural services following the Airline Deregulation Act of 1978 were addressed in the legislation through the development of the Essential Air Service program, which provided Federal subsidies for a period of ten years to guarantee continued air service to those places receiving it under regulation. No similar program was developed for the intercity bus industry, and a substantial abandonment of rural services was one outcome of this omission. However, the Section 18 program of Rural and Small Urban Public Transportation assistance provides each state with operating and capital funds that can be used to fund rural and small city public transportation, including intercity bus services.

UMTA Section 18 Funding

The program is administered by the Urban Mass Transportation Administration (UMTA) of the U.S. Department of Transportation. The program requires each state to apply for the funding, the amount of which is determined by a formula based on non-urban population. Each state must have an approved state management plan, specifying how it will use the Federal funds. Use of the Federal funding requires a non-Federal match, which can be provided by states, localities, or other organizations (including intercity bus firms). Not only can such funds be used to contract with private providers, such as intercity bus companies, such uses are encouraged by UMTA. This program represents the major source of Federal assistance.

In order to present ways in which this source of funding can be used, two cases are presented. One is that of Wisconsin, which has the longest running and the largest Section 18 program of intercity bus assistance. The other is North Carolina, which has used Section 18 funding in two very different regions to provide operating assistance to private carriers, and for capital to build a new terminal to serve both local transit and private intercity carriers.

Wisconsin. The Wisconsin program provided \$372,493 in Section 18 operating assistance for intercity carriers in FY1986 out of a total budget of about \$2.2 million. The funding was provided to local governments who contracted with carriers to provide the service. In prior years the state had contracted directly with intercity carriers, funding local and regional transportation through governments. Most of the participating carriers previously had been small Wisconsin bus companies, such as Prigge's, Wisconsin Northern, and Chippewa Yellow Bus.

However, for 1986 Greyhound also applied for funding, and in much larger amounts from other carriers. As 1986 Section 18 funds were reduced, and previous carryover was gone, the state was forced to devise ways of prioritizing services. Local services were given priority, and direct state contracting eliminated as a means of ensuring that services were responsive to local needs. Cost categories inherent in private sector operation, such as depreciation and profit, were made ineligible.

According to Greyhound, these changes had the effect of making private sector involvement difficult at best, and Greyhound appealed them to UMTA. The state subsequently changed a number of the regulations, but direct state contracting was still eliminated. This forced intercity carriers to apply to local governments along the routes on their behalf, increasing the coordination problems.

Greyhound succeeded in winning contracts for four routes, but did not receive matching funds from the communities. Instead, the state permitted Greyhound to count other revenues, such as package express, toward the required local match. Such an arrangement can aid the private carrier with sufficient revenues, but may make it impossible to fund small firms who would otherwise provide low-cost service. No state funding was used to match Section 18. In 1987 \$365,000 in Section 18 operating assistance was made available for intercity bus projects serving rural Wisconsin.

North Carolina. In North Carolina, Section 18 funding has been provided for four different types of intercity projects. The first began in 1981 when Virginia Dare Transportation, a small bus company operating regular-route service from Manteo and Ocracoke on the remote Outer Banks to Norfolk, Virginia, lost its lease on its two buses owned by Carolina Trailways. The firm turned to the state, as it could not afford replacement buses based on its revenues alone. The state reviewed the carriers' services, and citing the important role of the carrier in providing transportation to low income workers in the beach resorts, it approved funding of about \$70,000 per year for operation of the regular-route service. The Section 18 local match was met by counting revenues from unsubsidized schedules and route segments, and bus package express as local match. The service is continuing at this time, though Virginia Dare went bankrupt in June 1987. Gallop Bus Lines of Norfolk, Virginia, continues to operate the service without funding, in hopes that future funding can be worked out to maintain the service.

A second project was structured in a similar manner using Section 18 funding for service by Blue Ridge Trailways in a remote mountain area. Low ridership has caused this operation to be discontinued.

The third project is a Section 18 capital expenditure for an intermodal terminal in Wilson, North Carolina. Located across the street from the Amtrak station, this facility will replace the worst bus station in the state. It will serve Carolina and Seashore Trailways, Greyhound Lines, Wilson Transit, and the rural operator, with a capital cost estimated at \$650,000.

A fourth project has just begun. In this fiscal year, North Carolina is providing about \$70,000 in Section 18 funds to Carolina Trailways to fund operations on a number of routes in rural North Carolina. These routes are former Seashore Lines local routes between Fayetteville and the coast. Subsidy is provided at a fixed rate per passenger-mile to provide an incentive for the bus company to increase ridership.

Despite the fact that such uses are permitted and encouraged, few states have used Section 18 to assist intercity services. One reason is historical, in that most states still depend on private enterprise to provide all such services. A second reason is the strong competition for these funds from local and regional rural transportation systems. A third reason is that many states limit their role in the program to that of a pass-through to local governments. Intercity services through a number of localities are difficult to assist in such situations, because each of the local units must agree to cooperate and contribute.

STATE FUNDING

As a result of the fact that there are limited Federal funds available for rural transportation, and most state rural programs are not set up for intercity projects, a second funding option used in a number of states is some form of state funding.

State Funding Programs in Other States

In considering the possibilities of a state-funded intercity bus program for Virginia, it may be useful to examine the approach taken by other states with regard to the loss of regular-route service. The 1988 Survey of State Involvement in Public Transportation published by the American Association of State Highway and Transportation Officials provides data on funding by the states. In addition, the states have been contacted directly to learn more about how the funds are used. In some cases, the funds are included as part of a general transit assistance program, while in others specific programs for intercity bus are provided at the state level. Programs have included specific elements for funding of operating losses, terminal construction or rehabilitation, and vehicles, as described in the previous chapter.

Table 3-1 presents an overview of all the states currently funding intercity bus services. Much of the assistance provided by the states to private carriers is actually for services that are commuter oriented, though the services are provided between cities. Only Michigan, New York, and Pennsylvania have programs that are expressly designed to deal with rural and small town services other than commuter in nature. Several other states have performed studies of the intercity bus system following the BRRRA, including Oregon and Nevada.

In several states the intercity bus program is linked with the state regulatory system in that only the carrier holding the state authority to operate on a particular route is the one that can apply for and receive assistance. Subsidy levels are then negotiated, depending on losses. New York and Pennsylvania both follow this approach. In the case of New York, the bus regulatory function has been moved to the Department of Transportation from its former location in a state utilities commission. Michigan (along with Wisconsin and North Carolina who use Section 18 funding) has deregulated the intercity bus industry in the state, permitting the state to use competitive bids as a means of obtaining service at the lowest public cost.

Examination of Table 3-1 also reveals that most programs provide either operating funding, or capital for vehicles as the predominant form of assistance. Vehicle capital often amounts to a state role as banker, with reduction or elimination of the interest cost and extended payback as the subsidy. If demand is high enough that such a limited subsidy will suffice to maintain service, such programs may be beneficial as a means of providing assistance with minimal interference in management. However, if demand is low it may not be sufficient to keep the carrier in the regular-route business, and the vehicles may be diverted to other unintended uses such as interstate charters.

The scale of the state programs varies considerably, depending on the state concern and available funds. Four of the state funded programs are described briefly in this section.

New York State. Following passage of the BRRRA in 1982, New York was threatened with the loss of a substantial amount of service. Rather than accept the loss, the state expanded its State Transit Operating Assistance (STOA) program to include intercity carriers. In 1982-83 about \$9 million went to locally sponsored intercity carriers that provided their own match.

Table 3-1: STATE FUNDING FOR INTERCITY BUS SERVICES IN FY1988

State	Type of Program	Eligible Uses ¹	State Limits on Contribution	Annual Funding ²		Comments	Contact
				Capital	Operating		
Delaware	State Ridesharing Program Contracts for Commuter Service Between Major Cities	D	Not fixed. Carriers bid a daily rate for service. State contracts with low bidder, guaranteeing that rate. Carrier bills state for difference between actual revenue and that rate.		\$ 63,000	Services are commuter buses operated by private carriers: 1) Newark, DE - Wilmington-Philadelphia 2) Dover-Wilmington	Dan Logan Ride Sharing Admin. Delaware Transit Authority P.O. Box 778 Dover, DE 19903 (302) 571-7380
Maine	Direct State/Carrier Contract	D	Up to 10% of deficit on service, subject to budget constraint of amount allocated to that area of the state		\$ 50,000	Amounts negotiated with carrier serving route	Arnold Leavitt Maine DOT Transportation Building Child Street Augusta, ME 04333 (207) 289-2841
Massachusetts	State Purchases Buses for Lease to Carriers, Some Operating Assistance	C,D	1983 bond issue program required carrier payback of principal and interest, 1985 bond issue program payback was principal only (retroactive to 1983)	\$5,000,000 (1985 bond issue)	\$2,000,000	\$700,000 in operating assistance funded through MBTA-services are commuter oriented small town to Boston; \$400,000 is fuel tax refund	Mr. Michael H. Sharff, Program Director Executive Office of Transportation and Construction 10 Park Plaza, Room 3510 Boston, MA 02116-3969 (617) 973-7000
Maryland	Commuter Buses	D	Negotiated mileage rate with each carrier		\$ 300,000	Services are commuter schedules from Md suburbs to Washington metro area	Diane Ratcliff Mass Transit Administration 300 W. Lexington St. Baltimore, MD 21201 (301) 659-3375

¹Notes: A Provided to localities who determine uses
 B Capital assistance for facilities
 C Capital assistance for vehicles
 D Operating assistance to carriers
 E Reimbursement for reduced fares for elderly

²Source for funding data: American Association of State Highway and Transportation Officials, 1988 Survey of State Involvement in Public Transportation, p. 12 and p. 23.

Table 3-1 (continued)

State	Type of Program	Eligible Uses ¹	State Limits on Contribution	Annual Funding ²		Comments	Contact
				Capital	Operating		
Michigan	State Lease/Purchase Program Provides Buses for Intercity Carriers; Terminal Construction and Rehabilitation, Operating Assistance	B,C,D	Carriers participating in bus loan program must operate vehicles entirely in regular-route service. Lease buses from state. State portion of terminals and operating varies	\$3,000,000	\$6,026,900	Operating assistance expanded to include Rural Connection routes, and bus purchases. Ten terminals built, 8 more in design or planning	Jerome J. Rudnick Administrator, Intercity Div. Bureau of Urban and Public Transportation Michigan DOT 425 West Ottawa Street Lansing, MI 48909 (517) 373-2953
New York	Under State Transit Operating Assistance Program, State Contracts Directly with Intercity Carriers Serving Two or More Counties	D	Cap on carrier profits at greater of 6.38% of line revenues, or 17% return on equity		\$6,876,000	Program aimed at longer distance travel demand between places over 2,500 pop. <u>not</u> local or commuter services	Robert Knighton/David Weiss Transit Program and Evaluation Bureau New York DOT Albany, NY 12232
Pennsylvania	Direct State/Carrier Operating Assistance; State/Local for Facilities	B,D	Services must cover 40% of operating cost. Capital vs. operating at state discretion		\$1,288,000	No capital assistance for FY1988	William S. Parkin Bureau of Public Transit and Goods Movement Systems 1215 Transportation and Safety Bldg. Harrisburg, PA 17120 (717) 783-3906
Rhode Island	Fare Reduction Reimbursement for Elderly Persons Between Newport, Middletown and Portsmouth	E	State pays 50% of fare	\$	250	Reimbursement to carrier for reduced fares for elderly on Bonanza Bus Lines intrastate trips	Joseph Arruda Assistant Director for Planning Rhode Island Department of Transportation 372 State Office Building Providence, RI 02903 (401) 277-2694

In 1982 legislation was enacted enabling the state to contract directly with intercity carriers for services provided to seven or more counties. In 1982 this was reduced to three counties. The Department has directly sponsored nine major intercity carriers that were formerly sponsored by local counties. These firms received about \$6.9 million in STOA funds in FY1988. Another \$6 million goes to localities that contract with private carriers for local and regional services.

For the directly contracted intercity services the state has oversight responsibilities to make sure that the services are efficient and effective. In general, the services are not put out to competitive bid, but are priced at a negotiated rate with the existing carriers who are willing to put up the local match.

Pennsylvania. The State of Pennsylvania provides financial assistance to intercity carriers for operating subsidies, capital, demonstrations, and marketing or technical assistance under the Rural and Intercity Common Carrier Transportation Assistance Act of 1976 (Act 10). Most such assistance has been in the form of operating subsidies to private intercity carriers. The state will provide funds up to 75 percent of the carrier's losses. However, the services must cover 40 percent of the operating costs from revenues, a requirement which links the subsidy to usage to insure some level of effectiveness. Capital funding under the program is provided on a 50 percent state/local match basis for intercity bus firms or localities providing intercity bus facilities. Again, the contracts are negotiated with the carriers having Pennsylvania intrastate operating authority for the route.

Massachusetts. Although the program is aimed at private commuter bus operators servicing Boston, the program, operated by the Executive Office of Transportation and Construction (EOTC), is noteworthy because of its focus on rural to urban commuter buses. Funds from two bond issues in 1983 and 1985 were used to purchase intercity coaches for private carriers to use in scheduled service on route from small towns to Boston. The 1983 bond issue required the carriers to repay the state principal and interest, and the 1985 issue required only the principal to be repaid. Only Massachusetts based carriers can participate, and trips are restricted to regular-route operations five days per week, with charters restricted to weekends, and to the state and immediately adjacent areas. To date, the program has not resulted in problems with diversion of coaches to charter uses (passengers call the state whenever a carrier substitutes a non-state bus), or with intra-industry problems regarding advantages or certain carriers.

Michigan. Michigan has had one of the longest running state programs of assistance for intercity services. The program has focused on varying combinations of vehicle capital assistance, terminal construction, marketing demonstrations and assistance, and operating assistance over the years, depending on what was called for at the time. In 1987-88 the intercity program was re-evaluated in light of the post deregulated status of the regular-route industry, and it now includes four major programs.

One program is the provision of capital assistance for the construction or modernization of intermodal terminals. These terminals serve local urban or rural transit operations as a central transfer point, intercity bus firms,

and Amtrak where rail passenger services are available. This provides high quality service, and a convenient interchange point between the modes. Local shares usually include the site, with the state funding the construction or renovation. Operation is a local responsibility, though the state is now providing some funding for operations at times not otherwise financially feasible, such as late at night, or midday on weekends. Most of the funding in the state's intercity program is for terminal capital.

A second program is a limited bus lease program. The state will purchase intercity coaches and then lease them to regular-route intercity carriers for use in regular-route services only, for a nominal fee. The state retains ownership of the vehicle, and use in charters and tours is not permitted at all. Operation of the vehicles outside the state is limited, as the vehicles are intended to improve the quality and financial feasibility of regular-route services in Michigan.

The third element of the program is the "route savior program", which provides limited operating assistance for regular-route services that would otherwise be discontinued due to lack of adequate revenue for private operation. It is intended to support continued services in the low population density areas of northern Michigan, and the Upper Peninsula. To date, no routes are under contract as part of this program, but discussions are underway with carriers about some of the routes.

The fourth program element is perhaps the most interesting, which is the demonstration program. While it is available for a number of purposes, it is currently being used to provide state assistance to local rural transit operators to enable their participation in the Greyhound Rural Connection program. Assistance is being provided to seven rural and small urban county-wide systems over a two year period to support their participation in this linkage (described in Chapter 1). The state is budgeting about \$300,000 for the entire two-year, seven system effort.

The state provides staff time (two positions) to develop rural connection projects with the seven systems. Substantial state funding for marketing is provided to the local operator (up to \$1,000 per month, initially) to allow them to place the advertising materials provided by Greyhound and other carriers, including newspaper ads, radio, and posters/flyers.

Additional operating assistance is provided to local operators as well, to allow them to operate Friday evenings, and Sunday afternoons and evenings. These are the times of peak ridership on intercity routes, and the local service is needed to get passengers between their rural destinations and the intercity bus stop. Two of the systems have begun service, and one recorded the highest first month ridership of any place in the nation on the Greyhound Rural Connection.

Conclusions Regarding Programs in Other States

Many states are feeling the impact of declining regular-route services and some are using Federal and state funding to maintain services. Only five states are funding strictly rural intercity services, while the others are generally providing assistance to commuter bus operations. Those states whose programs

are aimed at intercity service have provided their assistance as operating contracts, with little or no capital involvement for vehicles or terminals. Other states providing vehicles to private carriers have done so for use in daily commuter services. No state is known to have provided vehicles to private carriers for charter purposes, though many states support efforts to attract out-of-state bus tours (almost always through economic development or tourism departments).

The state with the most developed program aimed at rural intercity services is Michigan, which has a particular geographic problem that has made it more difficult to retain commercially viable services. Because Michigan is two peninsulas, it has very little in the way of through service. Most bus ridership is either originating or terminating in the state, with little or no "overhead" traffic to provide additional revenues. Thus, most bus services in the state must cover the full cost of operation out of the revenues generated on just those routes.

This contrasts strongly with a state like Virginia, which is in the middle of the eastern seaboard, with most of its intercity bus and rail services operating through the state between the large cities of the northeast and points further south. Undoubtedly this is why Virginia retains such an extensive Greyhound and Trailways network, and why it has such a high density of Amtrak service (compared to most non-Northeast Corridor states). The services that have been lost in Virginia are primarily those operated by small, independent firms without the benefit of any overhead traffic.

Pennsylvania is probably the most analogous state to Virginia, in terms of its focus on rural mobility, and its geographic situation. While it does provide a fairly large program of contracts for rural intercity service, this does not mean that Virginia should do the same thing, especially given the limited amount of public concern about the reduction of services.

The Pennsylvania, Michigan, and New York programs do offer some guidance as to some of the program requirements that an intercity program would have, in contrast to a local transit program. These include the following key aspects:

- Intercity route assistance should be in the form of contracts for operation of the service, rather than using capital as an indirect subsidy.
- Intercity bus programs should provide for direct contracts between the state and the carrier, with local concurrence. New York found that defining intercity as any service in three or more counties worked well. If funds are channeled to counties and towns for possible use on intercity projects the coordination requirements become impossible, and local match is very difficult to find for services that benefit many jurisdictions and serve few local residents. When Wisconsin instituted requirements for funding through local governments, Greyhound was forced to provide the local match itself.
- When a carrier files to abandon service, it does have to provide data (under the BRRRA) to the state and the ICC (if appealed) regarding the variable costs of operating the service, and the direct revenues. An

estimate of subsidy required is also a part of the filing. This information can be used to estimate the needed subsidy requirements, and VDOT should work with the SCC to make sure that this information is provided to them in every such case.

- Under the BRRA, if the service has any interstate component, state control of entry and exit is pre-empted. This means that the state or any regional or local body, contracting for service can seek competitive bids from qualified operators, rather than simply contracting with the current providers. This is an advantage in terms of obtaining the lowest-cost service, as can be seen in the Michigan programs.
- Qualified operators should be defined in any bid packages in terms of the actual experience of the firm in providing regular-route intercity bus service. Many charter and tour operators are not knowledgeable about the ticketing, schedule coordination, baggage arrangements, and other aspects of scheduled service that are part of scheduled service. In addition, they are often tempted to pull buses off of scheduled runs for use in charters, if they are short on equipment.
- The state should have some type of program to maintain service on an intercity route threatened with abandonment while the need for continuing assistance is evaluated. Once a route is discontinued, it is nearly impossible to get the existing ridership back, and it becomes infeasible even with subsidies.

While these lessons provide guidance about the form of an intercity bus program, should one be required, there is no evidence that a statewide program of intercity bus assistance is needed in Virginia. However, VDOT should establish an ongoing mechanism to monitor intercity developments through the SCC to identify any abandonment actions as soon as they are filed. It should then have the capability of deciding if action is needed, and some knowledge about the most appropriate responses, based on the experience in other states.

LOCAL ROLES

Historically, intercity bus services were regulated at the state and federal level because of their role in connecting counties and states, rather than meeting strictly local needs. The experience of the other states suggests that funding assistance is also best provided at the state and federal levels, and that the local role with regard to funding intercity services is limited. However, there are other opportunities for local actions in support of privately-provided intercity bus services.

Local Funding of Intercity Services

Of the states providing funding, or using Section 18 operating assistance, all but Wisconsin have had to structure the program as a contract between the state and the carrier. In the case of Wisconsin, the state requires local applications for subsidized intercity bus services, but localities have been unwilling to supply the local matching funds. Consequently, the carriers have had to supply the local matching funds themselves out of package express and other revenues.

New York found that local support for carriers serving multiple counties was weak, and that major administrative problems resulted from funding the counties to pass through assistance to intercity carriers. When all the counties on a route could not agree on the need for the service, or the appropriate funding levels, it became extremely difficult to maintain service. For that reason, the New York State Department of Transportation now contracts directly with carriers for routes that cross three or more county lines. Pennsylvania and Michigan also contract directly with carriers for services that are receiving state assistance.

The local perspective on funding intercity services is understandable, once it is realized that intercity services serve very few people in any given community at any time, that the costs are likely to be high, and that it is difficult to agree upon a fair allocation of the costs among all the areas served by a particular intercity route or schedule.

In some cases, local funding may be appropriate and feasible if provided directly to the user. For example, if a county wishes to facilitate out-of-county medical transportation for residents, it is probably more appropriate to purchase a ticket for those particular users than to subsidize the bus company.

Other Suggested Local Roles

Local governments are much more likely to fund and support local transportation services that meet basic needs of county residents for medical trips, nutrition trips, and necessary shopping. For that reason, many Virginia counties provide the local matching funds for federal and state assistance to operate local human service agency transportation and/or local rural public transportation.

The most successful local efforts to support intercity public transportation have not required much funding, but rather efforts to connect existing rural public transportation to the intercity network, and to promote available intercity services.

Connection of Rural Services to the Intercity Network

During the last year Greyhound Lines has established and promoted a formal program to encourage local and regional public transportation operators in rural areas to connect with Greyhound and Trailways services. The program involves making information about the local services available in Russell's Guide and the Greyhound telephone information network, providing for joint-ticketing, through-checking of baggage, local pickup and delivery of package express, joint marketing, access to Greyhound stations, and other joint service aspects designed to facilitate the linkage between local services and intercity bus service. Thirty-four local systems (including two in Virginia) are currently operating under the Greyhound Rural Connection program, and it is anticipated that 26 more will be in the program by the end of the year. Greyhound's goal is to add 127 systems next year.

Local responsibilities under this program can vary. The local system may become the commission agent for Greyhound or Trailways, selling tickets

and charters, accepting package express, and operating the bus depot. If the local agent is not the rural operator, the local responsibility may be to ensure that the agent has information about their services, to operate to the depot, and to market the services. Greyhound provides the advertising material, but it is up to the local system to provide the local information and then place the materials in the newspaper or on local radio stations.

A similar program by Greyhound to assist its commission agents to start their own feeder routes is called Greyhound Shuttle, and it has been implemented where no local public services exist, or where there is no local interest in connecting with Greyhound.

Participation in this program is one local activity that could significantly address rural intercity transportation needs at very low cost. Local providers need to provide funding for the marketing placement, and to the extent possible make service available on Friday evenings and Sunday afternoons when intercity bus ridership peaks. The commission on the sale of intercity bus tickets (if the provider is the agent) and charters may provide additional local revenue to help offset these expenses, and the system may gain local support from elements of the community that have not been aware of the availability of local public transportation.

Other Local Actions

Local governments can also be involved in promotional activities to help maintain rural intercity bus service. Such actions as making sure that schedule information is published in local papers and as public service announcements on local radio can be low in cost, but help maintain the viability of existing service. Jefferson Lines, a large regular-route intercity bus operator in the midwest, has developed these actions into a program called the Community Awareness approach. Jefferson contacts the local government with a list of nine suggested areas of support, asking for action on at least five if service is to continue. Basically, the actions include efforts to link the commission agent with the local business community, to market and promote services locally, and to improve the bus depot.

CONCLUSIONS AND RECOMMENDATIONS

This report has attempted to identify the need for changes in the state role regarding rural intercity mobility. It has done this by examining the changes that have taken place in the regular-route intercity bus industry over the last several years, the losses and gains in Virginia services, the location of high potential need and the service provided to those locations, and the current state role in Virginia and in other states. Some general conclusions and recommendations are in order.

Conclusions

- Virginia's loss of service following deregulation was predicted by earlier state-funded studies. Service losses included virtually all the service operated by the small Class II and III companies. In addition, Greyhound Lines eliminated service on two routes utilizing the older U.S. highway routes. Service on the parallel interstates continue in operation in both cases, but there are fewer stops.

- The BRRRA basically pre-empted state regulation of entry, exit and rates. This means that use of state regulation as a tool to require or increase rural intercity services is not possible.
- The remaining role of the SCC, which could be valuable, is in identifying public need or concern about any future abandonment filings, since such requests must still be filed under both state and Federal law. The data required in these filings is vital to VDOT in the event that there is substantial public opposition to cessation of service.
- At this time the Greyhound/Trailways network in Virginia is extensive and relatively stable, as is the Carolina Trailways service. The only remaining independent regular route carrier of consequence is Intercity Bus Lines, and their services have been less stable, and are probably more vulnerable.
- There is no apparent currently need for a state program of intercity bus assistance for operations of intercity services.
- The only actual growth in the size of the intercity network in rural areas has come about as a result of the Greyhound Rural Connection Program, which links local rural transit operators with the intercity operations to permit coordinated connecting service. Two such operations are underway in Virginia -- JAUNT and District 3. Neither has been able to perform the necessary marketing to attract significant numbers of connecting passengers. Neither operates the Friday evening and Sunday service which would provide the best connections for intercity passengers.

Recommendations

Despite the fact that no statewide crisis in rural intercity mobility has been identified, there are several actions that VDOT could take to support an increase in rural intercity mobility, and to be ready in case of future service losses that are not now foreseen. These include:

- Maintaining the intercity bus network as a privately-operated, publicly available transportation service, with public involvement limited to...
- Supporting local involvement in the Greyhound Rural Connection program by state funded rural operations. The example of Michigan presents several ways in which the state could be of assistance, though not necessarily at that scale. Suggested VDOT actions include:
 - provide experimental program funding for marketing and limited additional service to the two current Rural Connection partners. Greyhound is providing the materials and a marketing manual-- the local operators need funds to print and place the materials.
 - promoting the concept with other rural operators, as indicated in this report, to expand rural mobility options. This step could begin immediately, but any additional funding to support expansion should probably wait until the results of marketing and service assistance at the two current operations are available.

- Making information about intercity options available to the public through a state public transportation guide. This is currently being developed, and would be helpful to the carriers and the public.
- Improving VDOT readiness for currently unforeseen intercity abandonment actions that might call for state assistance. This would include taking steps to allow for early identification of potential problems through the SCC, having provisions for maintaining service during an interim period while continuation decisions are made, and having the regulations in place to allow for competitive bidding and direct contracting with intercity carriers.
- Performing a more detailed statewide assessment of current and potential long-distance commuter markets. The state is currently involved in financial assistance to several projects that address such needs, but it is not known what the potential demand for such service is, and whether any of it might be provided by the private sector with limited or no public assistance.

APPENDIX A

SENATE JOINT RESOLUTION NO. 26

SENATE JOINT RESOLUTION NO. 26

Requesting the Department of Transportation to study the transportation needs of Virginia's rural population.

Agreed to by the Senate, February 10, 1988

Agreed to by the House of Delegates, March 9, 1988

WHEREAS, more of Virginia's population now lives in urban and suburban places than in rural places; and

WHEREAS, with the shift of the center of gravity of Virginia's population from the farm to the factory has come a parallel migration of Virginia's economic center of gravity from small towns to cities; and

WHEREAS, the focus of attention of Virginia's government, too, has become more and more fixed on the Commonwealth's urban and suburban areas; and

WHEREAS, as a consequence of this three-fold transplantation of Virginia's residential, economic, and political heartland, those who still live in rural Virginia now find it increasingly difficult to find employment, obtain government services, and maintain contacts with family and friends now living far away; and

WHEREAS, few rural Virginia communities were ever served by bus lines or railways, and of those that ever enjoyed regular bus or rail passenger service, very few indeed still enjoy either one, as small, independent bus companies have, one by one, either become carriers of freight only or ceased operation completely; and

WHEREAS, actions of the state and federal governments have not replaced vanishing private bus company and passenger rail service in rural areas with government-operated or government-subsidized commuter rail service or bus service, and thus for residents of many rural communities there is no alternative to the private automobile; and

WHEREAS, even though rural Virginia may not lie many road miles from urban Virginia, and even though the roads between the two may be equal to or better than those to be found in any other state in the nation, yet the distances remain enormous for those who may not own their own automobiles or who, because of age or infirmity, are reluctant to drive more than very short distances; and

WHEREAS, it is highly desirable that an effort be made to remedy this lamentable situation by finding a way to permit rural Virginians to travel between their homes and the sometimes distant urban centers where they often must go for medical care, clothing, entertainment, and the amenities of modern life; and

WHEREAS, it may be possible to develop a partnership between government and the private sector of the economy by which Virginia's urban centers can be linked more closely to their neighboring rural areas to the mutual benefit of transport entrepreneurs, urban businesses, and rural residents;

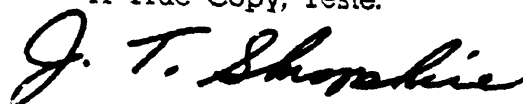
WHEREAS, in 1987 the General Assembly requested the Governor's Commission on Transportation in the Twenty-First Century to study the mass transit needs of Virginia's rural population; and

WHEREAS, the Commission was able to make only a general and preliminary examination of rural mass transit needs before its mandate expired; and

WHEREAS, the Commission's final report did however, recommend, "that a study to complement and update previous reports on the transportation needs of Virginia's human service agencies should be conducted, with special emphasis on rural and intra-city transportation requirements. This study should include an action plan and examination of the sources of funding for both human service transportation and public transportation, with a close look at how and when the sources can be pooled effectively to improve mobility in rural areas of Virginia. Such a study would be in accord with the preliminary plan for coordination of transportation services prepared by the Department for the Rights of the Disabled."; now, therefore, be it

RESOLVED by the Senate, the House of Delegates concurring, That the Department of Transportation is requested to study the transportation needs of Virginia's rural population as set forth in Senate Joint Resolution No. 122 of 1987 and the recommendations of the Governor's Commission on Transportation in the Twenty-First Century. Upon completion of this study, the Department shall report its findings to the Governor and General Assembly as provided in procedures of the Division of Legislative Automated Systems for processing legislative documents.

A True Copy, Teste:



Clerk of the Senate

APPENDIX B

LIST OF VIRGINIA POINTS LOSING INTERCITY BUS
SERVICE SINCE 1983

LIST OF VIRGINIA POINTS LOSING INTERCITY BUS
SERVICE SINCE 1983

T-Table	Points
7990	7-Corners
2808	Alpha
3437 (I.C.)	Amsterdam
2808	Arvonnia
140	Ashland
2807 (J.R.)	Aylett
142	Bartlett
2806 (J.R.)	Bellwood
7310 (C.T.)	Benn'S Church
7970	Bent Mt.
2806 (J.R.)	Bermuda Hundred Rd.
3033	Big Stone Gap
215	Boyce
2808	Bremo Bluf
3033	Bristol, Va.
7966	Broad St.
2808	Buckingham
295	Buena Vista
140	Carmel Church
145	Center Cross
2807 (J.R.)	Central Garage
215	Chantilly
2808	Chapel Hill
140	Charles City
7970	Check
140	Churchland
3437 (I.C.)	Cloverdale
3032 (B.J.)	Coeburn
2806 (J.R.)	Colonial Hgts.
2808	Columbia
215	Concord
7970	Copper Hill
142	Crittenden
2808	Crozier
7960	Dale City
3437 (I.C.)	Daleville
2808	Davidson
2808	Davis Store
160	Dewitt
2808	Dillwyn
2806 (J.R.)	Dinwiddie
2808	Dixie
140	Doswell
7970	Dugspur
3437 (I.C.)	Eagle Rock
215	Ellison
7976	Elliston

2807 (J.R.)	Emmertton
215	Fairfield
2806 (J.R.)	Falling Creek
7966	Farmington
2807 (J.R.)	Farnham
2808	Fife
3437 (I.C.)	Fincastle
7970	Floyd
215	Forest Jct.
2808	Forrest Tavern
310	Fort Chiswell
2806 (J.R.)	Fort Lee
3437 (J.C.)	Gala
3033	Gate City
215	Gladespring Jct.
7976	Glen Lyn
2808	Goldhill
2808	Goochland
215	Greenville
7966	Hadensville Rd.
3032 (B.J.)	Hansonville
145	Hayes
142	Hilton
3437 (I.C.)	Hollins
7310 (C.T.)	Hopewell
3437 (I.C.)	Iron Gate
2807 (J.R.)	Irvington
140	Ivor
7966	Ivy Jct.
140	Jarrell'S(K'Sdominion)
2806 (J.R.)	Jct.1&10
2808	Jonestown
2807 (J.R.)	Kilmarnock
215	Lacey Springs
140	Ladysmith
2807 (J.R.)	Lancaster
155	Lawrenceville
3437 (I.C.)	Lick Run
2807 (J.R.)	Litwalton
2807 (J.R.)	Lively
7960	Locust Grove
3437 (I.C.)	Lower Catawba
2808	Manakin
2807 (J.R.)	Manquin
160	Mckenney
2807 (J.R.)	Mechanicsville
215	Midlothian
2807 (J.R.)	Miller'S Tavern
215	Millwood
215	Montvale
215	Mt. Crawford
7990	New London
3032 (B.J.)	Norton
2807 (J.R.)	Nuttsville

7960	N. Garden-X Rds.
7966	Oilville
215	Pamplin City
142	Patrick Henry
3033	Pennington Gap
3032 (B.J.)	Pound
2808	Ranson Store
7990	Remington
2808	Ridge Rd.
7310 (C.T.)	Rives
2808	Rockcastle Rd.
7960	Ruckersville
7976	Salem
140	Sandston
7966	Shallowell
215	Shawsville
7966	Short Pump
7310 (C.T.)	Smithfield
7310 (C.T.)	Spring Grove
2808	Sprouses Corner
140	Stafford
2808	State Farm
3032 (B.J.)	St. Paul
2807 (J.R.)	St. Stephens
7310 (C.T.)	Surry
2807 (J.R.)	Talley'S Store
2807 (J.R.)	Taylor'S Fork
215	Thaxton
140	Thornburg
140	Toano
3437 (I.C.)	Trinity
215	Troutville
140	Wakefield
140	Waverly
2807 (J.R.)	Whitestone
7970	Willis
140	Windsor
3032 (B.J.)	Wise
7970	Woodlawn
310	Wytheville-S.
7966	Zion Crossroads

Abbreviations:

J - JAUNT, Inc.
 J.R. - James River
 P.C. - Piedmont Coach
 I.C. - Intercity Trailways
 D3 - District 3 Government Coop.
 C.T. - Carolina Trailways
 B.J. - Bristol & Jenkins, Inc.

APPENDIX C

LIST OF VIRGINIA POINTS GAINING INTERCITY BUS
SERVICE SINCE 1983

LIST OF VIRGINIA POINTS GAINING INTERCITY BUS
SERVICE SINCE 1983

T-Table	Points
2850 THURS.	Advance Mills
2850 WED.	Alberene
2855 (D3)	Atkins
2850 MON.	Batesville
2855 (D3)	Bland
2850 THURS.	Blenheim
2850 MON.	Boonesville
126	Bowling Green
2850 WED.	Boyds Tavern
2850 MON.	Brownsville
2806 (J.R.)	Buffalo Spring
2850 WED.	Bungletown
2850 MON.	Cash Corner
2850 (J)	Chestnut Grove
117	Churchview
2850 MON.	Cismont
2850 MON.	Cobham
2850 (J)	Colleen
2855 (D3)	Damascus
7970	Dawn
2850 THURS.	Earlyville
2855 (D3)	Elk Creek
2850 WED.	Esmont
2850 MON.	Free Union
2855 (D3)	Glade Spring
2850 WED.	Greenwood
196	Gum Spring
7970	Hanover
2855 (D3)	Highlands College
2850 THURS.	Hollymead
2850 FRI.	Howardville
2850 THURS.	Hydraulic Rd.
2855 (D3)	Indepence
2850 MON.	Ivy
2850 MON.	Jarman'S Gap
2850 (J)	Keene
2850 MON.	Keswick
2855 (D3)	Konnarock
2806 (J.R.)	Lunenburg
2850 (J)	Massies Mill
2855 (D3)	Meadowview
2850 MON.	Mountfair
2850 MON.	Nortonsville
2850 WED.	N. Garden
2850 WED.	Old Dominion
2806 (J.R.)	Omega
2850 (J)	Palmyra

2850 (J)	Piney River
2855 (D3)	Poplar Camp
2850 MON.	Profitt
2850 WED.	Red Hill
2806 (J.R.)	Rehoboth
2850 THURS.	Rivanna
2855 (D3)	Saltville
2850 (J)	Schuyler
2850 FRI.	Scottsville
2850 (J)	Shipman
2850 THURS.	Slate Mill
2850 (J)	Southwood
2855 (D3)	Speed Well
2855 (D3)	Spring Valley
2850 MON.	Stony Point
2806 (J.R.)	Sutherland
2850 WED.	S. Garden
126	Va. Trvl. Plz.(K'S Dominion
2850 MON.	Whitehall
2855 (D3)	Wytheville College

Abbreviations:

J = JAUNT, Inc.
 J.R. = James River
 P.C. = Piedmont Coach
 I.C. = Intercity Trailways
 D3 = District 3 Government Coop.
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APPENDIX D

VIRGINIA COUNTIES AND INDEPENDENT CITIES RANKED BY THE NUMBER OF PERSONS
PER SQUARE MILE DISPLAYING PUBLIC TRANSPORTATION NEED CHARACTERISTICS

VIRGINIA COUNTIES AND INDEPENDENT CITIES RANKED BY THE
NUMBER OF PERSONS PER SQUARE MILE DISPLAYING PUBLIC TRANSPORTATION
NEED CHARACTERISTICS

COUNTY	Persons age 16 to 24		Persons age 65 and over		Low Income Persons		Zero Car Households		One Car Households		Sum of the Rankings	OVERALL RANK
	density	rank	density	rank	density	rank	density	rank	density	rank		
Accomack County	9.08	79	10.95	57	13.68	57	4.05	52	8.52	64	309	52
Albemarle County	18.79	53	6.08	87	6.90	90	1.50	93	8.75	62	385	68
Alexandria City	1,087.60	5	620.53	3	612.20	5	418.07	1	1,820.40	1	15	1
Alleghany County	4.78	118	3.42	121	3.17	131	0.82	129	2.99	115	614	116
Amelia County	3.60	126	2.94	128	2.85	132	0.68	131	2.20	128	645	120
Amherst County	10.38	74	6.31	85	5.53	103	1.67	89	5.37	90	441	82
Appomattox County	5.42	111	4.37	110	3.60	127	1.18	111	3.23	110	569	107
Arlington County	948.15	7	672.31	1	423.92	7	379.35	2	1,437.69	2	19	3
Augusta County	8.49	84	5.90	90	5.23	111	1.22	108	4.71	94	487	89
Bath County	1.60	135	1.47	135	1.35	134	0.38	135	0.94	135	674	125
Bedford City	121.43	38	201.57	27	120.57	36	57.29	32	118.86	38	171	31
Bedford County	6.70	100	5.32	95	4.29	124	1.00	118	3.90	101	538	98
Bland County	2.64	133	2.13	133	2.08	133	0.62	132	1.71	133	664	123
Botetourt County	5.84	106	4.53	106	3.24	130	1.04	116	3.69	103	561	106
Bristol City	259.83	32	234.33	22	247.08	22	124.25	19	208.00	32	127	24
Brunswick County	4.95	116	3.49	120	6.53	95	1.28	105	2.98	116	552	103
Buchanan County	13.53	62	5.09	99	13.99	55	2.87	65	6.36	80	361	62
Buckingham County	3.09	130	2.79	130	3.99	125	0.89	125	1.91	131	641	119
Buena Vista City	364.33	21	243.33	20	195.67	27	108.33	23	259.67	23	114	21
Cambell County	14.05	61	7.85	71	8.54	76	2.09	78	8.20	65	351	59
Caroline County	5.55	110	3.27	125	5.52	104	1.32	103	3.30	107	549	102
Carroll County	7.90	89	7.79	73	9.10	74	2.51	70	5.98	82	388	69
Charles City County	6.85	96	3.11	126	4.68	119	0.92	123	2.88	119	583	111
Charlotte County	3.75	124	3.52	119	6.45	97	0.96	122	2.53	126	588	113
Charlottesville City	1,136.80	4	454.40	6	811.90	2	274.10	5	596.60	6	23	4
Chesapeake City	56.45	45	23.21	44	37.03	42	8.58	42	34.49	42	215	37
Chesterfield County	50.63	47	14.79	48	14.69	53	2.94	63	27.15	45	256	44

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COUNTY	Persons age 16 to 24		Persons age 65 and over		Low Income Persons		Zero Car Households		One Car Households		Sum of the Rankings	OVERALL RANK
	density	rank	density	rank	density	rank	density	rank	density	rank		
Clarke County	6.80	98	7.58	74	5.30	110	1.70	88	5.75	85	455	85
Clifton Forge City	225.00	35	363.00	15	249.00	21	130.00	18	236.67	25	114	22
Colonial Hights City	309.00	25	186.63	29	87.13	39	49.50	36	235.88	26	155	29
Covington City	328.25	24	400.50	10	280.25	17	132.00	17	332.25	15	83	14
Craig County	1.65	134	1.54	134	1.22	135	0.51	134	1.26	134	671	124
Culpeper County	8.85	80	7.47	75	8.94	75	2.29	73	5.40	89	392	71
Cumberland County	3.71	125	3.57	117	6.46	96	1.16	113	2.61	125	576	110
Danville City	412.24	17	412.12	9	362.12	12	199.94	8	375.71	12	58	9
Dickenson County	9.80	77	5.62	92	10.47	62	2.65	67	5.24	92	390	70
Dinwiddle County	7.64	92	4.86	100	5.42	107	1.02	117	3.18	112	528	96
Emporia City	342.00	23	451.00	7	403.50	8	210.00	7	314.00	18	63	11
Essex County	4.68	120	5.26	97	5.30	109	1.11	115	3.99	99	540	99
Fairfax City	628.17	11	180.00	31	153.67	32	31.67	37	378.33	11	122	23
Fairfax County	229.06	34	68.05	40	58.61	40	17.63	39	163.76	36	189	34
Falls Church City	621.00	12	663.00	2	200.00	25	160.00	12	1,001.00	3	54	8
Fauquier County	8.53	83	5.12	98	5.78	101	1.27	106	4.46	98	486	88
Floyd County	4.07	123	4.72	104	4.61	120	1.35	101	2.74	122	570	108
Fluvanna County	5.37	112	4.20	111	6.63	93	1.18	112	2.95	118	546	101
Franklin City	292.50	30	234.00	23	400.00	10	153.00	15	219.75	29	107	19
Franklin County	9.29	78	5.68	91	5.16	113	1.57	91	4.52	96	469	86
Frederick County	12.22	67	6.72	82	8.04	82	1.47	95	7.05	73	399	72
Fredricksburg City	636.67	10	373.50	12	267.50	19	178.17	9	426.67	9	59	10
Galax City	110.75	40	142.88	35	124.00	35	70.88	29	120.75	37	176	32
Giles County	7.06	94	5.92	89	6.15	99	1.99	81	5.95	83	446	84
Gloucester County	13.33	63	10.59	59	10.29	65	2.49	71	9.70	59	317	54
Goochland County	6.58	102	4.64	105	5.37	108	1.19	110	3.28	108	533	97
Grayson County	5.16	114	5.28	96	5.14	114	1.99	82	3.95	100	506	93
Greene County	6.73	99	4.40	109	5.89	100	1.45	96	4.46	97	501	92
Greensville County	5.64	109	3.92	112	8.20	80	1.87	85	3.36	105	491	90
Halifax County	5.83	107	4.80	102	7.14	89	1.42	98	3.71	102	498	91
Hampton City	489.06	15	165.73	34	269.12	18	82.65	25	314.00	17	109	20

COUNTY	Persons age 16 to 24		Persons age 65 and over		Low Income Persons		Zero Car Households		One Car Households		Sum of the Rankings	OVERALL RANK
	density	rank	density	rank	density	rank	density	rank	density	rank		
Hanover County	16.97	56	9.62	65	8.28	79	1.85	86	7.92	68	354	60
Harrisonburg City	1,321.83	3	351.17	16	401.17	9	136.00	16	366.00	14	58	9
Henrico County	118.74	39	75.08	39	46.92	41	15.23	40	100.41	40	199	36
Henry County	23.91	52	12.63	51	14.67	54	4.17	49	14.62	50	256	44
Highland County	1.05	136	1.12	136	1.06	136	0.30	136	0.67	136	680	126
Hopewell City	392.10	20	255.90	18	286.30	16	117.80	21	332.20	16	91	15
Isle of Wright County	10.83	71	6.76	81	9.63	70	2.06	79	6.82	74	375	67
James City County	24.91	49	13.92	49	15.84	51	3.65	56	16.87	49	254	43
King and Queen County	2.69	132	2.61	132	3.36	128	0.62	133	1.83	132	657	122
King George County	8.38	86	4.86	101	7.88	84	0.99	119	5.73	86	476	87
King William County	4.86	117	3.77	115	4.42	121	0.97	121	3.09	113	587	112
Lancaster County	9.83	76	16.31	46	12.02	60	3.59	58	10.66	57	297	50
Lee County	8.58	82	8.28	67	15.29	52	3.81	54	6.73	76	331	57
Lexington City	1,477.00	1	447.00	8	477.50	6	167.50	11	462.00	8	34	6
Loudoun County	15.34	58	7.36	76	7.19	88	1.76	87	9.26	61	370	66
Louisa County	5.69	108	4.50	108	5.74	102	1.49	94	3.28	109	521	95
Lunenburg County	4.11	122	3.87	113	5.20	112	1.38	99	3.05	114	560	105
Lynchburg City	261.48	31	186.40	30	163.00	30	79.24	26	180.06	35	152	27
Madison County	4.74	119	4.51	107	5.42	106	1.31	104	2.87	120	556	104
Manassas City	305.00	27	111.13	36	143.50	33	26.13	38	206.00	33	167	30
Manassas Park City	606.00	14	86.00	38	263.00	20	52.00	33	222.00	28	133	26
Martinsville City	237.91	33	255.00	19	213.00	24	104.00	24	228.91	27	127	24
Mathews County	11.82	69	20.18	45	8.15	81	2.92	64	12.84	51	310	53
Mecklenburg County	6.98	95	6.61	84	9.69	69	2.18	74	5.55	88	410	75
Middlesex County	7.50	93	11.50	54	9.57	71	2.15	76	7.46	69	363	63
Montgomery County	60.13	44	11.05	56	27.84	43	4.06	51	17.75	48	242	39
Nelson County	3.56	128	3.85	114	4.75	117	1.23	107	2.67	124	590	114
New Kent County	5.90	105	3.57	118	3.80	126	0.99	120	3.32	106	575	109
Newport News City	434.60	16	174.26	32	291.18	15	109.26	22	306.31	21	106	18
Norfolk City	1,371.94	2	460.68	5	908.15	1	337.98	4	715.55	4	16	2
Northampton County	10.07	75	10.54	60	17.19	48	4.24	48	8.67	63	294	49

COUNTY	Persons age 16 to 24		Persons age 65 and over		Low Income Persons		Zero Car Households		One Car Households		Sum of the Rankings	OVERALL RANK
	density	rank	density	rank	density	rank	density	rank	density	rank		
Northumberland County	6.80	97	10.72	58	6.16	98	1.61	90	7.10	72	415	78
Norton City	108.71	41	86.86	37	127.71	34	50.86	34	78.00	41	187	33
Nottoway County	6.50	103	7.80	72	8.03	83	2.55	69	5.06	93	420	81
Orange County	7.71	90	7.05	78	7.88	85	2.13	77	5.73	87	417	79
Page County	8.73	81	8.05	69	9.16	73	2.96	61	6.77	75	359	61
Patrick County	4.99	115	4.75	103	4.77	116	1.44	97	3.22	111	542	100
Petersburg City	306.13	26	206.96	25	357.39	13	156.61	13	248.48	24	101	17
Pittsylvania County	10.76	72	7.16	77	9.96	66	2.42	72	6.41	79	366	64
Poquoson City	77.00	42	34.82	42	26.00	44	6.12	43	32.65	44	215	37
Portsmouth City	617.67	13	375.00	11	654.67	4	221.13	6	494.97	7	41	7
Powhatan County	8.36	87	3.33	124	4.68	118	0.89	126	2.81	121	576	110
Prince Edward County	13.02	65	5.95	88	8.40	77	1.87	84	5.33	91	405	73
Prince George County	24.50	51	3.61	116	7.59	86	0.91	124	8.20	66	443	83
Prince William County	69.48	43	10.23	61	20.63	45	3.73	55	33.78	43	247	41
Pulaski County	15.74	57	12.50	52	12.09	59	4.38	47	12.44	52	267	46
Radford City	724.57	8	171.43	33	197.71	26	63.57	30	212.00	31	128	25
Rappahannock County	3.08	131	3.02	127	3.25	129	0.82	130	2.07	129	646	121
Richmond City	691.15	9	511.75	4	670.47	3	363.28	3	605.42	5	24	5
Richmond County	5.30	113	5.45	94	5.50	105	1.38	100	3.38	104	516	94
Roanoke City	351.37	22	365.16	14	375.35	11	168.67	10	371.42	13	70	12
Roanoke County	42.23	48	28.06	43	16.42	50	4.50	46	26.65	46	233	38
Rockbridge County	4.68	121	3.39	122	4.34	123	0.85	128	2.96	117	611	115
Rockingham County	12.48	66	6.81	80	6.83	91	1.51	92	6.03	81	410	75
Russell County	10.61	73	6.71	83	9.78	68	2.68	66	6.43	78	368	65
Salem City	304.86	28	221.21	24	119.86	37	50.21	35	219.00	30	154	28
Scott County	6.66	101	6.28	86	10.36	64	2.59	68	4.52	95	414	77
Shenandoah County	7.70	91	7.98	70	6.53	94	2.00	80	5.79	84	419	80
Smyth County	11.27	70	9.33	66	9.87	67	3.64	57	8.10	67	327	55
South Boston City	153.67	37	186.83	28	181.33	28	71.00	28	186.50	34	155	29
South Hampton County	5.99	104	3.38	123	6.77	92	1.14	114	2.71	123	556	104
Spotsylvania County	12.05	68	5.54	93	8.38	78	1.35	102	7.20	71	412	76

COUNTY	Persons age 16 to 24		Persons age 65 and over		Low Income Persons		Zero Car Households		One Car Households		Sum of the Rankings	OVERALL RANK
	density	rank	density	rank	density	rank	density	rank	density	rank		
Stafford County	24.61	50	8.25	68	9.43	72	1.93	83	10.82	56	329	56
Staunton City	410.11	18	368.33	13	225.11	23	121.89	20	313.78	19	93	16
Suffolk City	18.15	54	13.37	50	19.92	47	5.98	44	12.39	53	248	42
Surry County	3.58	127	2.86	129	4.81	115	0.87	127	1.99	130	628	118
Sussex County	3.35	129	2.73	131	4.38	122	1.19	109	2.30	127	618	117
Tazewell County	15.04	59	9.76	63	13.71	56	3.86	53	10.00	58	289	48
Virginia Beach City	198.11	36	46.09	41	87.29	38	10.42	41	107.30	39	195	35
Warren County	14.08	60	11.96	53	10.38	63	4.08	50	11.82	54	280	47
Washington County	13.09	64	9.68	64	12.20	58	3.00	60	9.30	60	306	51
Waynesboro City	295.38	29	234.38	21	175.75	29	72.63	27	268.63	22	128	25
Westmoreland County	8.47	85	10.04	62	11.56	61	2.95	62	7.27	70	340	58
Williamsburg City	1,041.60	6	206.40	26	157.00	31	60.20	31	311.40	20	114	21
Winchester City	395.33	19	341.56	17	319.00	14	155.67	14	383.56	10	74	13
Wise County	17.93	55	11.25	55	16.44	49	5.65	45	11.01	55	259	45
Wythe County	7.97	88	6.99	79	7.50	87	2.16	75	6.48	77	406	74
York County	54.00	46	15.91	47	20.13	46	3.19	59	25.90	47	245	40

Source: 1980 Census.

APPENDIX E

VIRGINIA COUNTIES AND INDEPENDENT CITIES RANKED BY THE PERCENTAGE OF THE
AREAS POPULATIONS DISPLAYING PUBLIC TRANSPORTATION NEED CHARACTERISTICS

VIRGINIA COUNTIES AND INDEPENDENT CITIES RANKED BY THE
PERCENTAGE OF THE AREAS POPULATION DISPLAYING PUBLIC TRANSPORTATION
NEED CHARACTERISTICS

COUNTY	Persons age 16 to 24		Persons age 65 and over		Low Income Persons		Zero Car Households		One Car Households		Sum of the Rankings	OVERALL RANK
	percent	rank	percent	rank	percent	rank	percent	rank	percent	rank		
Accomack County	13.8%	121	16.7%	11	20.8%	11	16.6%	20	34.9%	35	198	20
Albemarle County	24.4	11	7.9	117	9.0	112	5.8	118	33.6	46	404	92
Alexandria City	15.8	54	9.0	109	8.9	113	12.8	49	55.7	1	326	64
Alleghany County	14.9	85	10.6	90	9.9	98	7.5	106	27.5	99	478	114
Amelia County	15.3	72	12.5	60	12.1	83	8.7	94	28.5	92	401	89
Amherst County	17.1	31	10.4	94	9.1	111	8.9	92	28.7	89	417	98
Appomattox County	15.2	74	12.3	63	10.1	97	9.8	85	26.7	111	430	104
Arlington County	16.2	46	11.5	73	7.2	123	13.8	38	52.2	3	283	47
Augusta County	15.6	60	10.9	84	9.6	103	6.7	115	25.9	116	478	113
Bath County	14.7	88	13.5	42	12.4	75	10.5	78	25.8	119	402	91
Bedford City	14.2	109	23.6	1	14.1	61	17.4	18	36.2	29	218	23
Bedford County	14.3	102	11.4	76	9.2	109	6.2	117	24.3	130	534	124
Bland County	14.9	81	12.0	66	11.8	84	10.8	75	29.5	80	386	88
Botetourt County	13.7	124	10.6	91	7.6	121	7.1	111	25.3	122	569	132
Bristol City	16.4	41	14.8	26	15.6	42	20.6	6	34.5	38	153	8
Brunswick County	17.8	23	12.6	58	23.5	5	14.3	34	33.5	48	168	14
Buchanan County	18.0	22	6.8	123	18.6	22	12.3	55	27.2	104	326	65
Buckingham County	15.3	71	13.9	34	19.8	16	13.5	44	28.8	87	252	36
Buena Vista City	16.3	44	10.9	83	8.7	115	14.3	33	34.3	40	315	60
Cambell County	15.6	61	8.7	111	9.5	104	7.0	112	27.4	101	489	117
Caroline County	16.6	38	9.8	100	16.5	36	12.3	52	30.9	70	296	52
Carroll County	13.9	118	13.7	39	15.9	39	12.3	54	29.4	83	333	68
Charles City County	18.5	21	8.4	113	12.7	73	8.6	96	26.7	112	415	97
Charlotte County	14.6	93	13.7	38	25.1	3	11.3	67	29.8	76	277	44
Charlottesville City	28.5	6	11.4	75	20.3	12	17.8	15	38.7	15	123	3
Chesapeake City	16.8	33	6.9	120	11.0	88	8.0	102	32.2	58	401	90
Chesterfield County	15.5	64	4.5	131	4.5	133	2.8	135	25.7	120	583	134

COUNTY	Persons age 16 to 24		Persons age 65 and over		Low Income Persons		Zero Car Households		One Car Households		Sum of the Rankings	OVERALL RANK
	percent	rank	percent	rank	percent	rank	percent	rank	percent	rank		
Clarke County	12.1	136	13.5	41	9.5	105	8.6	95	29.1	85	462	111
Clifton Forge City	13.4	129	21.6	3	14.8	52	20.6	7	37.4	23	214	22
Colonial Hights City	15.0	80	9.0	108	4.2	134	6.7	114	32.1	60	496	118
Covington City	14.5	96	17.7	8	12.4	76	15.0	30	37.9	20	230	26
Craig County	13.8	122	12.9	50	10.2	96	11.6	62	28.6	90	420	100
Culpeper County	14.9	82	12.6	57	15.1	48	11.5	63	27.1	105	355	77
Cumberland County	14.1	112	13.6	40	24.6	4	13.6	42	30.5	73	271	42
Danville City	15.4	70	15.3	20	13.5	64	19.4	10	36.5	27	191	17
Dickenson County	16.4	42	9.4	102	17.5	29	13.7	39	27.1	106	318	62
Dinwiddie County	17.1	30	10.9	81	12.1	80	8.1	101	25.1	126	418	99
Emporia City	14.1	111	18.6	7	16.7	34	23.9	3	35.8	32	187	16
Essex County	13.9	116	15.6	17	15.7	41	9.6	86	34.5	37	297	53
Fairfax City	19.4	15	5.6	128	4.8	132	2.8	136	33.0	53	464	112
Fairfax County	15.1	77	4.5	133	3.9	136	3.4	131	31.4	66	543	126
Falls Church City	13.1	130	13.9	33	4.2	135	7.5	107	47.1	4	409	94
Fauquier County	15.5	68	9.3	104	10.5	92	7.2	110	25.0	128	502	120
Floyd County	13.4	128	15.6	18	15.2	46	12.5	50	25.2	123	365	80
Fluvanna County	15.2	75	11.9	68	18.8	20	10.0	82	25.2	124	369	82
Franklin City	16.0	47	12.8	53	21.9	9	23.6	4	34.0	43	156	11
Franklin County	17.7	25	10.9	85	9.9	99	9.0	90	26.0	115	414	95
Frederick County	14.9	86	8.2	116	9.8	101	5.3	122	25.5	121	546	127
Fredricksburg City	24.9	10	14.6	27	10.5	93	18.0	14	43.2	7	151	7
Galax City	13.6	126	17.5	9	15.2	45	21.6	5	36.8	25	210	21
Giles County	14.3	101	12.0	67	12.5	74	11.5	64	34.3	41	347	73
Gloucester County	14.9	84	11.8	69	11.5	86	7.9	103	30.5	72	414	96
Goochland County	15.7	58	11.1	79	12.8	72	9.1	89	25.1	125	423	101
Grayson County	13.9	117	14.2	28	13.8	62	14.8	31	29.4	82	320	63
Greene County	13.8	119	9.1	107	12.1	82	8.9	91	27.4	100	499	119
Greensville County	15.5	66	10.8	86	22.6	6	16.3	24	29.3	84	266	41
Halifax County	15.5	65	12.8	51	19.0	17	11.4	66	29.7	77	276	43
Hampton City	20.3	12	6.9	119	11.2	87	10.2	81	38.6	16	315	61

COUNTY	Persons age 16 to 24		Persons age 65 and over		Low Income Persons		Zero Car Households		One Car Households		Sum of the Rankings	OVERALL RANK
	percent	rank	percent	rank	percent	rank	percent	rank	percent	rank		
Hanover County	15.7	57	8.9	110	7.7	120	5.3	121	22.7	134	542	125
Harrisonburg City	40.3	3	10.7	89	12.2	78	13.7	41	36.9	24	235	28
Henrico County	15.6	59	9.9	99	6.2	128	5.4	120	35.6	33	439	107
Henry County	15.8	52	8.4	114	9.7	102	8.1	98	28.5	91	457	110
Highland County	14.8	87	15.8	15	15.0	49	11.1	72	25.1	127	350	75
Hopewell City	16.8	34	10.9	80	12.2	77	13.8	36	39.1	13	240	30
Isle of Wright County	16.0	49	10.0	98	14.2	58	9.3	88	30.9	69	362	79
James City County	16.7	35	9.4	103	10.6	90	7.3	108	33.8	44	380	86
King and Queen County	14.3	103	13.9	35	17.9	28	9.5	87	28.3	94	347	74
King George County	14.3	105	8.3	115	13.5	65	5.1	123	29.4	81	489	116
King William County	14.5	97	11.2	78	13.2	67	8.8	93	27.8	96	431	105
Lancaster County	12.9	133	21.4	4	15.8	40	12.1	57	36.0	30	264	40
Lee County	14.4	98	13.9	32	25.7	2	18.7	11	33.1	52	195	19
Lexington City	40.5	2	12.3	62	13.1	68	15.4	29	42.4	9	170	15
Loudoun County	13.9	115	6.7	124	6.5	125	4.9	125	25.9	117	606	136
Louisa County	15.9	51	12.5	59	16.0	38	12.4	51	27.4	102	301	55
Lunenburg County	14.6	90	13.8	37	18.5	23	14.1	35	31.0	68	253	37
Lynchburg City	19.6	13	14.0	31	12.2	79	16.5	21	37.6	21	165	13
Madison County	14.9	83	14.2	29	17.1	33	12.3	53	27.1	107	305	56
Manassas City	15.8	55	5.8	127	7.4	122	4.1	128	32.6	56	488	115
Manassas Park City	18.6	20	2.6	135	8.1	117	5.6	119	23.9	133	524	122
Martinsville City	14.4	99	15.5	19	12.9	71	17.2	19	37.9	19	227	25
Mathews County	12.9	134	22.0	2	8.9	114	8.1	97	35.8	31	378	85
Mecklenburg County	14.6	92	13.8	36	20.3	13	13.2	48	33.7	45	234	27
Middlesex County	13.0	131	20.0	6	16.6	35	9.9	84	34.2	42	298	54
Montgomery County	36.9	5	6.8	122	17.1	32	7.6	105	33.2	50	314	58
Nelson County	13.8	120	15.0	24	18.5	24	13.7	40	29.7	78	286	48
New Kent County	14.3	104	8.7	112	9.2	108	7.2	109	24.1	131	564	131
Newport News City	19.5	14	7.8	118	13.1	69	13.8	37	38.8	14	252	35
Norfolk City	27.2	8	9.1	105	18.0	27	20.4	9	43.2	6	155	10
Northampton County	15.6	63	16.3	12	26.6	1	17.8	16	36.3	28	120	2

COUNTY	Persons age 16 to 24		Persons age 65 and over		Low Income Persons		Zero Car Households		One Car Households		Sum of the Rankings	OVERALL RANK
	percent	rank	percent	rank	percent	rank	percent	rank	percent	rank		
Northumberland County	12.8	135	20.2	5	11.6	85	7.8	104	34.4	39	368	81
Norton City	16.0	50	12.8	54	18.8	18	20.5	8	31.5	65	195	18
Nottoway County	14.0	114	16.8	10	17.3	30	16.1	25	31.9	63	242	33
Orange County	14.6	91	13.3	44	14.9	51	11.7	61	31.3	67	314	59
Page County	14.1	113	13.0	47	14.8	53	13.4	46	30.6	71	330	66
Patrick County	13.6	125	13.0	48	13.0	70	11.1	70	24.9	129	442	108
Petersburg City	17.2	29	11.6	71	20.0	14	24.1	2	38.3	17	133	5
Pittsylvania County	16.2	45	10.8	87	15.0	50	10.9	74	28.8	88	344	72
Poquoson City	15.0	79	6.8	121	5.1	130	3.7	129	20.0	136	595	135
Portsmouth City	17.7	26	10.8	88	18.8	19	18.1	13	40.4	11	157	12
Powhatan County	16.7	36	6.6	125	9.4	106	6.5	116	20.5	135	518	121
Prince Edward County	28.0	7	12.8	52	18.1	26	13.4	45	38.2	18	148	6
Prince George County	25.3	9	3.7	134	7.8	119	3.7	130	33.5	47	439	106
Prince William County	16.3	43	2.4	136	4.8	131	2.9	134	26.2	114	558	129
Pulaski County	14.2	107	11.3	77	10.9	89	11.2	69	32.0	62	404	93
Radford City	38.4	4	9.1	106	10.5	94	11.3	68	37.5	22	294	51
Rappahannock County	13.5	127	13.2	46	14.3	57	10.2	80	25.8	118	428	103
Richmond City	18.9	19	14.0	30	18.4	25	25.4	1	42.3	10	85	1
Richmond County	14.7	89	15.1	23	15.3	44	11.0	73	26.9	108	337	70
Roanoke City	15.1	78	15.7	16	16.1	37	18.1	12	39.9	12	155	9
Roanoke County	14.5	94	9.7	101	5.6	129	4.5	126	26.5	113	563	130
Rockbridge County	15.7	56	11.4	74	14.6	56	8.1	100	28.2	95	381	87
Rockingham County	18.9	18	10.3	95	10.4	95	6.8	113	27.3	103	424	102
Russell County	16.0	48	10.1	96	14.7	54	12.1	58	29.0	86	342	71
Salem City	17.8	24	12.9	49	7.0	124	8.1	99	35.5	34	330	67
Scott County	14.2	108	13.4	43	22.1	8	15.8	26	27.7	98	283	46
Shenandoah County	14.3	106	14.8	25	12.1	81	10.2	79	29.5	79	370	83
Smyth County	15.3	73	12.6	56	13.4	66	14.4	32	32.1	61	288	49
South Boston City	13.0	132	15.8	14	15.3	43	16.3	23	42.8	8	220	24
South Hampton County	19.3	17	10.9	82	21.8	10	11.9	59	28.3	93	261	39
Spotsylvania County	14.1	110	6.5	126	9.8	100	5.0	124	26.8	110	570	133

COUNTY	Persons age 16 to 24		Persons age 65 and over		Low Income Persons		Zero Car Households		One Car Households		Sum of the Rankings	OVERALL RANK
	percent	rank	percent	rank	percent	rank	percent	rank	percent	rank		
Stafford County	16.5	40	5.5	129	6.3	127	4.3	127	24.1	132	555	128
Staunton City	16.9	32	15.2	22	9.3	107	13.5	43	34.9	36	240	31
Suffolk City	15.6	62	11.5	72	17.1	31	15.5	28	32.2	59	252	34
Surry County	16.7	37	13.3	45	22.3	7	12.2	56	27.8	97	242	32
Sussex County	15.1	76	12.3	61	19.8	15	16.4	22	31.6	64	238	29
Tazewell County	15.5	67	10.0	97	14.1	60	11.8	60	30.5	74	358	78
Virginia Beach City	19.3	16	4.5	132	8.5	116	3.1	133	32.3	57	454	109
Warren County	14.4	100	12.2	64	10.6	91	11.4	65	33.1	51	371	84
Washington County	15.8	53	11.7	70	14.7	55	10.6	77	32.9	54	309	57
Waynesboro City	15.4	69	12.2	65	9.2	110	9.9	83	36.6	26	353	76
Westmoreland County	13.7	123	16.2	13	18.7	21	13.3	47	32.7	55	259	38
Williamsburg City	52.8	1	10.5	92	8.0	118	10.7	76	55.2	2	289	50
Winchester City	17.6	27	15.2	21	14.2	59	17.6	17	43.3	5	129	4
Wise County	16.6	39	10.4	93	15.2	47	15.5	27	30.3	75	281	45
Wythe County	14.5	95	12.7	55	13.7	63	11.1	71	33.4	49	333	69
York County	17.2	28	5.1	130	6.4	126	3.3	132	26.9	109	525	123

Source: 1980 Census.

