Minnesota Intercity Bus Network Study

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KFH GROUP, INC.

Minnesota Intercity Bus Network Study

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Chapter 1

Introduction and Background

The Minnesota Intercity Bus Network Study reviews and evaluates Minnesota's existing intercity bus network, determines changes and improvements based on intercity transportation needs and service gaps, and provides an operational plan and policy recommendations to meet intercity bus needs. This document contains five chapters, each of which outlines important components of this assessment. Where the first chapter outlines background information about the intercity bus industry and the current status of Minnesota's intercity bus program, the second and third chapters provide an inventory of existing intercity bus services and describe intercity transportation needs, respectively. The fourth chapter details a range of policy considerations and recommended changes to achieve an improved statewide intercity bus network. The last chapter describes potential future networks, including improvements and new services for both the short- and long-term future. This study is meant to guide the Minnesota Department of Transportation (Mn/DOT) staff in improving the state's intercity bus program, and provide thorough service and policy analysis on Minnesota's intercity bus network for interested stakeholders, including service providers and the public.

This introductory chapter provides the background context and data needed to develop future policies and plans addressing the intercity bus transportation needs of Minnesota. It includes a discussion of the policy environment in which existing intercity bus services are provided, whether with or without federal or state funding. The policy discussion includes an overview of the S.5311(f) program of federal assistance for rural intercity bus service, which is administered by Mn/DOT. This chapter also reviews the histories of the intercity bus industry and of Minnesota's intercity bus program to better understand intercity bus issues that the state has faced. The current state of Mn/DOT's S.5311(f) program and intercity bus carriers' policies are also examined to determine the coordinated approach that must be taken to improve the state's intercity bus network.

DEFINITION OF INTERCITY BUS

This report mainly examines intercity bus service as defined within the Federal S.5311(f) program, which provides funding for rural intercity bus service. The S.5311(f) program is discussed in further detail below, but the definition of intercity bus is first described here to clarify the type of transportation service examined in this study. Intercity bus service is defined as regularly scheduled bus service for the general public, with three major characteristics:

- Operates with limited stops over fixed routes, connecting two or more urban areas not in close proximity;
- Has the capacity to carry passenger baggage; and
- Makes meaningful connections with scheduled intercity bus service to points outside the service area.

POLICY CONTEXT: FEDERAL POLICY

Whatever policy Minnesota develops regarding intercity bus transportation, it must exist within the context of the federal policy structures that have evolved over the past several decades. These federal statutes have been specifically designed to pre-empt state policy and regulation. In general, the federal policy is that interstate bus transportation is not regulated at the federal level in terms of entry (which carriers can serve which routes), exit (whether a carrier is allowed to abandon a route), or rates (the federal government no longer oversees rates at all). Federal regulation is limited to ensuring that carriers are financially responsible (have adequate insurance) and meet federal safety standards.

Because it is recognized that the federal policy of deregulation has reduced service coverage and frequencies in rural areas, federal policy also provides for financial assistance for intercity bus service to, from, or in rural areas. Federal policy also recognizes that there are benefits to ensuring that travelers have the ability to make connections between modes, including intercity bus, local transit, and intercity rail passenger services. Federal funding is available for constructing intermodal passenger facilities, including the intercity bus related portions. The following section presents more detail on these policies in terms of the statutory history, implementing agencies, and their programs.

Pre-Deregulation: Federal and State Economic Regulation

Intercity bus transportation developed initially during World War I and in the post war era as vehicles capable of carrying larger groups were developed, interurban railways went bankrupt, and roads improved. Demand increased during the 1920s and 1930s, and some states began regulating bus services as a means of promoting stability, ensuring safety, and protecting the railways. Federal regulation of interstate bus service began with the Motor Carrier Act of 1935. This act placed interstate bus service under the authority of the Interstate Commerce Commission (ICC) providing for regulation of fares, route authority, service types, and financial responsibility on interstate services. The regulatory system was modeled on a framework that had previously been applied to the rail industry. Individual states continued to have regulatory authority over intrastate services, including both economic and safety regulation.

The ICC and state regulatory agencies limited competition on individual routes by allowing a limited number of firms (often a single firm) to operate on a particular route. This was called control over entry (to that particular market), and was accomplished by issuing "authority" to operate that service. Carriers without authority could not operate that service. Along with route authority, regulatory agencies also restricted the ability of firms to offer charters and tours, allowing them to originate such services only in areas where they held route authority. In effect, this control allowed firms to generate revenues well above costs on busy routes and in populated areas where they held the authorities. However, the same regulators also restricted the ability of the firms to eliminate service on routes that were unprofitable, typically in rural areas. This was called control over exit (from a route). The combination of control over entry and exits forced the firms to subsidize their own rural routes from the higher profit levels earned on busy routes (where the regulatory system protected their monopoly) and from charters and tours (again, where they had regulatory protection).

The regulatory agencies also controlled fare levels, which were set by the ICC for interstate trips and by the states for intrastate trips. State regulators often set intrastate fares at lower levels than the ICC-regulated interstate rates, again forcing carriers to subsidize shorter trips within states (including most rural services) from revenues earned on higher-fare interstate services. Such government involvement–dating from the 1930's–demonstrates that both federal and state policies have long recognized a need to support rural bus services.

In the post-World War II period, intercity bus ridership declined somewhat, but in general, ridership levels were stable and rural services continued to operate until the Interstate Highway System began to open in the early 1960s. The intercity bus industry requested authority to shift services from the old U.S. and state highways to the interstate routes to provide better travel times and remain more competitive with the

private auto. With intercity routes moving to the interstates, rural service frequencies declined. Remaining rural services often proved to be unprofitable and carriers began to request permission from federal and state regulators to abandon these routes. By the late 1960s, the decline in the number of places served by intercity carriers had begun. Initially the large firms sold the rural and branch line operating rights to small independent carriers (sometimes setting up a driver in his own business) with lower operating costs. Later, when the revenue did not support even the small low-cost carrier, the regulatory authorities would be forced to allow abandonment.

Deregulation—Federal Bus Regulatory Reform Act (BRRA) of 1982, and the ICC Sunset Act

The advent of Amtrak in 1971 substantially reduced the nation's intercity rail passenger network, but it led to increased fare competition for the bus industry. Similarly airline deregulation in 1978 had a negative impact on intercity bus ridership, as new carriers with low cost structures targeted bus ridership as well as the existing air carriers. By 1982, financial problems led much of the intercity bus industry to join federal policy-makers in supporting an end to much of the regulatory control held by the ICC and the states. Passage of the BRRA of 1982 essentially ended the federal government's economic control over interstate bus services, though control over insurance and safety requirements was retained. The BRRA also pre-empted state regulation of entry, exit, and fares. A second piece of legislation also affected federal and state regulation. The ICC Termination Act of 1995 eliminated the ICC legislation, and transferred the remaining oversight functions regarding financial responsibility (insurance) and safety to the U.S. Department of Transportation (USDOT), where they have become a function of what is now called the Federal Motor Carrier Safety Administration (FMCSA). S.14501(a) of this statute also made clear that state regulation of intrastate services could not be applied to any services that operated on interstate routes or were subject to federal regulation, so carriers that participated in the national interline ticketing system (and were therefore offering interstate service) were definitely no longer subject to economic regulation by state public utilities commissions.

Many states reacted to state pre-emption by eliminating state economic regulation, often shifting safety and insurance regulation to other agencies such as the state police. Minnesota's approach to these issues is discussed below.

Federal Assistance for Intercity Bus Service—Federal Transit Administration (FTA) Programs

By the late 1980s and early 1990s, federal policy-makers began discussing the need to provide ongoing funding assistance for rural intercity routes, which led to the creation of the S.18(i) program of assistance for rural intercity routes as part of the 1992

Intermodal Surface Transportation Efficiency Act (ISTEA) transportation authorizing legislation. This program was subsequently codified as 49 USC S.5311(f), and is fully described in Chapter VIII of FTA Circular 9040.1F. The basic outline of the program has remained the same since 1992, though there have been some changes and interpretations over the years as the program has been implemented. More recently, the passage of the latest federal transportation authorization bill, Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU), included language that has resulted in the most substantial change in the program to date. SAFETEA-LU also included some additional changes that affect the use of federal funds on intercity bus projects.

Federal Definition of Public Transportation Does Not Include Intercity Service

SAFETEA-LU included a change in the FTA definition of public transportation that affects the ability to use federal transit funds for intercity bus services. The new language excludes intercity bus transportation from the definition of public transportation that is supported with federal funding, with three specific exceptions—the S.5311(f) rural intercity bus assistance program, intermodal facilities, and the S.3038 Over-the-Road Bus Accessibility Program to assist in purchasing accessibility equipment and training for private operators of over-the-road coaches. This means that public transit agencies that receive FTA funding cannot operate intercity bus service between Urbanized Areas—this is a market reserved to the private for-profit industry. For example, intercity bus service between Duluth and Minneapolis-St. Paul, with no intermediate stops, cannot be funded with federal transit funds, whereas intercity bus service between those same places with intermediate stops at nonurbanized places can be funded under the S.5311(f) rural intercity bus program. The three types of intercity assistance that are allowed include the following programs.

S.5311(f)

Federal S.5311(f) funds are a key funding source for intercity bus operations and are used in a majority of states to subsidize targeted intercity bus services. S.5311(f) is a subsection of the S.5311 formula allocation program for small urban and rural areas under 50,000 population, which allocates funding to each state's governor for distribution to local applicants. The amount of funds provided to each state is based on the non-urbanized population of the state.

Program funds can be used for capital, operating, planning, and administrative assistance to state agencies, local public bodies, non-profit organizations and operators of public transportation services. Fifteen percent of the annual apportionment must be used to support intercity bus service through the S.5311(f) component of the program unless the governor of the state certifies that all rural intercity bus needs are met. A

partial certification is also possible, if the needs utilize less than the full 15%. If the Governor certifies that intercity needs are met, the funding reverts to the overall S.5311 program for use on other rural transit projects. Under SAFETEA-LU, states planning to certify (partially or completely) are required to undergo a **consultation** process prior to certifying. The revised FTA Circular calls for the certification process to include identification of the intercity carriers, definition of the activities the state will undertake as part of the consultation process, an opportunity for intercity carriers to submit information regarding service needs, a planning process that examines unmet needs, and documentation that the results of the consultation process support the decision to certify—if, in fact, that is the final decision.

As described earlier, under the S.5311(f) program, intercity bus service is defined as regularly scheduled bus service for the general public which operates with limited stops over fixed routes connecting two or more urban areas not in close proximity, has the capacity to carry passenger baggage, and makes meaningful connections with scheduled intercity bus service to points outside the service area. Feeder services to intercity bus services are also eligible. Commuter service is excluded. The S.5311(f) program is implemented by each state as part of its overall S.5311 program management activities. In the most recent draft circular, FTA has added guidance that makes clear that S.5311(f) funded intercity services must take schedule considerations into account to have a meaningful connection with scheduled intercity bus services to points outside the service area, adding a dimension (schedule) to the definition of a meaningful connection. Furthermore, FTA suggests that services that include a stop at the intercity bus station as one among many stops should not properly be considered for S.5311(F) funding, but instead should utilize other federal funding programs. For example, a long route connecting a nonurbanized place with an urbanized place, which has stops at every cross street on its way to a central transfer point may not be properly considered as intercity bus service, even if one of those stops is at the intercity bus station. Both of these new interpretations have the effect of narrowing the definition of eligible intercity service under S.5311(f).

For both S.5311 and S.5311(f) capital funds, the maximum federal share is 80% of the net cost, and for operating assistance, 50% of the net cost. Net cost for operating expenses are those expenses that remain after operating revenues, which at a minimum include farebox revenues, and are subtracted from eligible operating expenses. Obtaining local cash operating match has been a major program issue, particularly in states that provide no state operating assistance. In response to this issue, FTA has issued guidance for a pilot program permitting use of the value of capital used in connecting private unsubsidized service as an in-kind match for S.5311(f) operating funds. This program, known as the "Pilot Project", is discussed below. The major downside to this method is that the available S.5311(f) allocation will fund fewer projects, because the effect of the funding approach is that a much higher percentage (or

the entire amount) of the operating deficit is funded with federal dollars. This new funding approach is discussed in more detail below.

State administration, planning, and technical assistance in support of intercity bus service are eligible at 100% federal share if applied against the 15% cap on state administration expenses. The amount of S.5311 funds used for planning of intercity bus service is not limited by the 15% cap. However, the federal share of any planning assistance for intercity bus not included in the 15% allowed for state administration is limited to 80% of the planning cost. In the past Mn/DOT has not used its S.5311(f) for state administrative costs.

For projects that may have both a rural and urban component (for example, a bus terminal located in an urbanized area, but served by rural routes), recipients can use S.5311(f) funds as a portion of the overall project funding. Their use for capital projects in urbanized areas is limited to those aspects of the project that can be clearly identified as a direct benefit to services to and from non-urbanized areas. FTA does not provide any specific guidance on how to determine the proportion of the project that might be funded by S.5311(f), but benefit to the rural services might be calculated based on the percentage of facility usage with a trip end in the rural area, or more directly based on the seating or bus bays required for use by the services originating in the rural area. Such projects have to be included in both the metropolitan Transportation Improvement Program (TIP) and the State Transportation Improvement Program (STIP). This provision was used by Mn/DOT to provide S.5311(f) funding toward the Hawthorne Transportation Center in Minneapolis, which is an intermodal facility that serves as the city's intercity bus station.

With regard to eligible recipients, for the S.5311(f) program only, FTA allows states to pass-through funds to private intercity bus carriers directly as subrecipients, if they are willing to accept the federal terms and conditions. Carriers may decide not to be recipients directly, and prefer to be third-party contractors to a subrecipient (which may be the state itself or a local public entity or nonprofit organization). As a third-party contractor, a carrier is able to isolate its other (non-assisted) operations from the requirements associated with a federal and/or state grant. The Mn/DOT program has provided administrative, marketing, and operating assistance to private intercity carriers from the outset of the state program.

"Pilot Project" Use of the Value of Capital on Connecting Unsubsidized Service as In-kind Match for Operating Assistance

On October 20, 2006, FTA executive management approved a two-year pilot project allowing states to use the capital costs of unsubsidized connecting private sector intercity bus service as in-kind match for the operating costs of rural intercity bus

feeder service. Later guidance has extended the period of the pilot, and it has now been extended through the end of SAFETEA-LU. Language to create this program in statute has been proposed for inclusion in the next reauthorization bill.

Under the Pilot Project, the project definition includes both the rural intercity segment requiring operating assistance, and a specific connecting unsubsidized service segment, in terms of both costs and revenues. As part of this approach, the value of the capital cost portion of the total cost of connecting unsubsidized services is used as in-kind match. Because the operating cost portion of the unsubsidized miles is offset by the revenues, there is no operating deficit on that portion of the project, but the value of the capital used on those miles (if provided by the carrier) can be used as an in-kind match to address the 50% local match requirement on the net operating deficit of the subsidized segment. Based on the precedent of the FTA regulations permitting 50% of the total cost of a turnkey operating contract to be considered as eligible for the 80% capital match ratio, FTA has allowed 50% of the total per-mile cost of the unsubsidized connecting intercity bus service be considered as the in-kind capital contribution of the intercity bus company to the rural intercity bus project.

The schedule of the rural subsidized connecting service is considered in determining if it makes a meaningful connection with the unsubsidized service. The length of the unsubsidized segment and the frequency of the connecting service determine the number of bus-miles that can be used to provide the in-kind match, which sets a limit on the value of the in-kind contribution, which is the capital cost portion (50% of the fully-allocated per-mile operating cost) of the connecting miles operated on the unsubsidized segment. Depending on the project definition, the amount of unsubsidized service may provide enough in-kind match to cover the entire net operating deficit of the rural feeder service. FTA recognizes that the amount of in-kind match may not be enough to fully fund the feeder service, and that additional cash match may be required. However, if the in-kind match exceeds the amount needed, the excess cannot be used to increase the federal share above the actual operating deficit of the project.

In cases where the unsubsidized (from an operating perspective) connecting intercity service is already operated with FTA-funded capital for vehicles, the percentage used for in-kind will need to be adjusted, following the guidelines provided by FTA for determining percentage of contract cost eligible for capital under capital cost of contracting in cases where the buses are FTA-funded. This circumstance would necessarily reduce the amount of in-kind generated.

A major part of the rationale for this approach is based on the call for "meaningful connections with scheduled intercity bus service to more distant points" contained in the FTA Circular. Because the proposal for valuing unsubsidized service

as local match involves defining the project in terms of a meaningful connection, FTA's guidance requires that the private operator has consented to the arrangement in the project, and it must acknowledge that the service it provides is covered by the labor warranty and other requirements.

Because this essentially supplants the need for local operating match, it will have the effect of utilizing the available S.5311(f) operating funds at approximately twice the rate that would have been the case, where local sources (including carriers or transit agencies) provided local match for 50% of the net operating deficit. In addition, it means that the policy guidelines and project designs will need to conform to the FTA guidance for such projects, and that the private carriers providing the unsubsidized segments will need to be full participants in program and project design.

This approach has been used in Minnesota to fund Jefferson Lines' service between St. Cloud and Sioux Falls via Willmar and Marshall, which is matched by the value of the in-kind capital used in the unsubsidized services operated by Jefferson Lines in the I-35 corridor. Expanding its use in Minnesota may be difficult because the state currently has few unsubsidized intercity bus routes, so there are relatively few revenue-miles with which to generate the connecting unsubsidized in-kind match. Because Minnesota does not provide any of the local match with state funds, an applicant would certainly have the incentive to apply this funding method to reduce their need to provide carrier funding as match. However, the scarcity of miles, and the need to have the operator of the unsubsidized miles as a party to the application, will limit its application in Minnesota.

Other Federal Programs—Bus and Bus Facility Program—Intermodal Terminals

In addition to assistance for maintaining or developing rural intercity services, a second aspect of intercity bus service that is addressed by federal transit policy and funding is support for intermodal terminals—i.e. passenger terminals that are served by more than one transit mode or carrier. There are many such terminals around the country that are served by private for-profit intercity bus companies, in which passengers can change carriers. Many of them also have intercity or commuter rail passenger service, and most have local bus transit or other transit service.

Often intermodal facilities are joint development projects that also include commercial office space, retail space, or even residential units. These projects are typically developed by local transit or development authorities, who act as the applicant for federal and available state funding. Private for-profit intercity bus firms have been involved, either as partners (contributing some of the local capital match), or tenants (leasing docking space for buses, counters, offices, and paying a pro rata share of common space), or sometimes both (paying a pro rata share of operating expenses

but not having to lease because of participation in the local match). Funding for these projects has generally come from the FTA capital programs—particularly the Bus and Bus Facilities funding (formerly Section 9), much of which is earmarked by Congress for specific projects, but also as an eligible capital project under S.5307 or S.5311 or S.5311(f). Congestion Mitigation Air Quality (CMAQ) program capital funding has also been used for intermodal facilities, including both terminal buildings and park and ride lots.

In the past FTA guidance about private intercity bus operator participation has been interpreted by some to require that these firms be treated as if they are the same as any other non-transit private use—i.e. FTA funds could not be used to build or operate portions of a project used by the private carriers. In these cases the projects often required the high rents expected of commercial tenants, or bus companies to fund the full cost of facility improvements attributable to the intercity carriers. However, in SAFETEA-LU, a revision to the transportation authorization makes it clear that private intercity carriers should be considered as eligible to benefit from federal transit funding in these projects—the intercity bus portion of an intermodal facility is now eligible under the Bus and Bus Facilities program. Guidance about this change has been issued by FTA.

In addition, SAFETEA-LU created a funding source for the intercity bus facilities by authorizing $35 million per year under the Bus and Bus Facilities discretionary program (Section 3011) for intercity bus facilities—a total of $175 million over the life of the bill, beginning in FY 2005. The program is administered by FTA, and is likely to fit within the general Bus and Bus Facilities program. This funding could potentially be a source of capital for intermodal facilities in Minnesota, but it is likely that this funding will be considered as having been applied to the earmark projects that have intercity components, so it may not represent a new additional source. SAFETEA-LU contains an extensive list of such projects.

S.5309 funding has also been used in the past in other states for buses, including not only rural and urban transit buses, but also intercity buses that were made available for use by private firms. While this has not been common, it is another way to provide vehicle capital for rural intercity services.

Minnesota has used S.5311(f) funding for capital as one contribution toward the Hawthorne Transportation Center intermodal terminal that is currently operational in Minneapolis. The state requested that FTA permit the use of this rural funding source for a terminal in an urban area based on the evidence that it would serve rural residents using intercity bus services originating in rural areas.

Section 3038 Over-the-Road Bus Accessibility Program Grants

This program was authorized as part of TEA-21, and it continues under SAFETEA-LU. It makes funds available to private operators of over-the-road buses to pay for the incremental capital and training costs associated with compliance of the final DOT rules on over-the-road accessibility.[1] Over-the-road buses are defined as buses with a high seating deck with luggage compartments below. The definition of intercity, fixed-route over-the-road bus service is essentially the same as that for the S.5311 program: "regularly scheduled bus service for the general public, using an over-the-road bus that: operates with limited stops over fixed routes connecting two or more urban areas not in close proximity; has the capacity for transporting baggage carried by passengers; and makes meaningful connections with scheduled intercity bus service to more distant points". The only difference is the focus on the over-the-road bus.

The S.3038 program is unusual in that it is conducted directly by FTA (including its regional offices) rather than being managed by state recipients. The solicitation for applications is conducted on a national basis, with federal funding to provide up to 90% of the costs of accessibility equipment (such as wheelchair lifts, access doors, folding seats, interlocks, tie-downs, etc. and the labor cost for installation) and training. The funds can be spent on the incremental costs of this equipment on a new coach, or used to retrofit existing coaches. For a combined FY 2007 and 2008 program, $15.9 million was available from FTA, and $11,925,000 was awarded to fixed-route carriers, and $3,975,000 was awarded to other intercity operators. It should be noted that the carriers requested $41.6 million, which suggests that there is substantial additional demand for funding to meet accessibility requirements. Among the intercity carriers serving Minnesota, Jefferson Lines was awarded $238,400, and Greyhound Lines received $6,321,200 for its national fleet (including Minnesota services).

As this program is essentially a direct agreement between the carrier and FTA, there is little potential state role for Mn/DOT. However, it should be noted that in the past Mn/DOT has provided capital funding out of its S.5311(f) allocation to Greyhound for accessibility equipment on its vehicles, and that the carriers may continue to need funds for this purpose as they obtain equipment or update their existing fleet.

Federal Motor Carrier Safety Administration

The other major federal policy framework affecting intercity bus service is the regulatory framework of the FMCSA. As noted previously, the FMCSA is an agency of the U.S.DOT, and is one remnant of the regulatory authority formerly exercised by the ICC. FMCSA does not have any role in the economic regulation of the intercity bus industry; rather its focus is on ensuring that the firms providing service in interstate

[1] 49 CFR Part 37, published in the Federal Register on September 28, 1998 (63 FR 51670).

commerce are financially responsible (have the required levels of insurance), and operate within the federal safety requirements. Thus the FMCSA requirements are important to Mn/DOT in that intercity bus carriers in the state that offer interline service to interstate passengers must meet FMCSA requirements, with some limited exceptions. In addition, FMCSA policing of insurance and safety allows Mn/DOT to address these issues by requiring FMCSA registration and compliance, rather than having to do these things itself as part of its intercity bus program.

In general, all commercial motor vehicle operators that transport passengers "for-hire" across state lines must register with the FMCSA. For-hire means that the operator receives compensation, even if it is not directly from passengers (for example if Medicaid pays for the trip). This is true for non-profit agencies as well as for-profit firms. A commercial motor vehicle is a motor vehicle used in interstate commerce to transport passengers if it has a gross vehicle weight rating (or weight, or gross combination weight) in excess of 10,001 pounds, or is designed or used to carry more than eight passengers, including the driver, for compensation, or is designed or used to carry more than 15 passengers, including the driver, and is **not** used to transport passengers for compensation. There are exceptions for school bus service, operations entirely within a commercial zone, and taxicab service. There are specific definitions for commercial zones in the law, including a listing of specific zones and a generic definition for other locations not specifically listed.

The commercial vehicle operator transporting passengers for-hire in interstate service must apply for a license, filing a Form OP-1(P) (paper) or on-line, and an application fee. The applicant must present evidence of the proper insurance and designate a process agent (a representative who can receive court papers that might be served in any court proceeding against the carrier). Generally the operator must pay a fee to a process agent for these services. The required insurance levels are based on the seating capacity of the vehicle (the largest vehicle in the operator's fleet or the number of passengers, whichever is greater). The liability insurance coverage per occurrence is $5 million for vehicles having capacity of 16 or more passengers, and $1.5 million for 9 to 15 passenger vehicles. Once the operator has a license, they receive an MC (for motor carrier) number, and a USDOT number. The USDOT number and the name of the operator must be marked on the buses. There is no separate fee to obtain the USDOT number. Public entities performing for-hire services are exempt from the need to obtain a USDOT number, and from a number of other FMCSA safety requirements, but they must obtain operating authority (a MC number) if they are providing transportation that would otherwise be covered by these requirements.

Commercial vehicle operators that provide interstate service and receive funding under S.5311(f) (or S.5311, S.5307, or S.5310), or contract to provide service funded by these programs, do not have to meet the insurance requirements listed above, but must

carry insurance at the highest levels required by any of the states in which they operate. Also, the application fee for the FMCSA license is waived—but the operator must still file and obtain an MC number and a USDOT number (unless a public entity). These exemptions and exceptions for FTA grantees and contractors receiving FTA funding are not widely known in the FMCSA system, and applicants may need to contact FMCSA offices directly and explain their status as recipients of FTA funding in order to receive the fee waiver and the alternative insurance requirements.

It should be noted that operators receiving S.5311(f) funding who wish to interline with Greyhound Lines or be part of the National Bus Traffic Association (NBTA) interline ticketing system, will need to register and meet FMCSA (or Greyhound) levels of insurance. As a part of the national interline system, a rural transit operator is considered to be part of a system offering interstate service, even if that operators routes and schedules are entirely intrastate. Federal regulations then apply, including the need for the operator to register with the FMCSA and obtain a USDOT number. The general rule is that any transit operator (public, private for-profit, private non-profit) that carriers passengers for-hire and crosses state lines is required to register with the FMCSA (depending on the size of the vehicle). Interlining extends this requirement to an operator whose own service may be entirely intrastate. Beyond that, the exact requirements may vary depending on the nature of an interline agreement, the size of the vehicle, whether or not the operator is a public or private entity, and whether or not it is a grantee under FTA programs.

As noted above, FMCSA registration includes requirements for financial responsibility, including insurance requirements. The normal required insurance minimums are $1.5 million in single limit liability coverage for vehicles with a seating capacity under 15, and $5 million for vehicles above that size. For agencies that cross state lines and are recipients of federal funding under S.5307, S.5311, and S.5310, the FMCSA insurance minimums are the highest limits required by any of the states served. A S.5311 or S.5311(f) funded operator offering only intrastate service, but interlines would fall under the same exception as a grantee operating interstate service, except that the required insurance levels would be those of the state in which the service is operated. However, Greyhound Lines has established its own requirements for agencies that interline with it, but do not cross state lines. These are discussed below under carrier policies. FMCSA is also responsible for safety regulations affecting commercial motor vehicles operated in interstate commerce. In addition to the requirements for the appropriate USDOT numbers and vehicle markings, FMCSA sets requirements for driver qualifications, driver medical examinations, hours of service limits, records of duty status, vehicle safety inspections, and documentation of vehicle repair and maintenance. FMCSA regulations include the Commercial Driver's License (CDL) requirements for both interstate and intrastate commercial transportation (for operators of vehicles designed to transport 16 or more passengers). FMCSA regulations

also include drug and alcohol testing. However, if the operator is receiving FTA funds, the FTA drug and alcohol and drug-free workplace requirements may apply, though a carrier can follow the regulations that cover the majority of their operation as a general rule, with only FTA-funded services covered by the FTA drug and alcohol requirements in the event of an accident (because FTA has a broader definition of safety-sensitive positions to be addressed by post-accident testing). In Minnesota, the CDL program, medical exams, and vehicle licenses are administered by the state, and are discussed below.

It should be noted that the FMCSA regulations are complex, and determining their applicability to FTA-grant funded services is difficult at best, particularly adding the complexity of interline agreements and carrier requirements. Each potential case should be carefully reviewed with the available technical assistance and guidance to determine which aspects of which regulations apply, as FMCSA regulations include driver licensing and safety requirements, as well as drug and alcohol regulations that differ from those of FTA.

CARRIER POLICIES

In addition to the federal funding and regulatory policies, the intercity bus program in Minnesota must recognize and work with the private sector industry that provides most of the intercity service—in part because federal policy does not allow the state to participate in providing intercity bus service between urbanized areas, and in part because it would cost a great deal of public funding to replace the extensive network of service provided by the private carriers. In the development of a program at this time, the private intercity bus industry is also a key participant in the state's intercity bus program, because of the recent FTA regulatory guidance allowing the use of the value of capital on unsubsidized connecting intercity bus service as in-kind operating match for S.5311(f) operating grants. Project designs utilizing this approach to funding need to include the unsubsidized private carrier providing the connecting service as part of the overall project design and application. This means that the private carriers are part of the program, along with the state and the local S.5311(f) grantee (or contractor).

Jefferson Lines

Jefferson Lines, headquartered in Minneapolis, is now the only S.5311(f) program subrecipient in Minnesota. A family-owned firm with a long history in the state, Jefferson Lines has worked to maintain an intrastate network for Minnesota by using the available S.5311(f) funding and its own funds (as local match) to operate local intercity bus services, which are providing stopping service to many of the state's small

towns. This traditional intercity bus service contrasts with an approach that would have shifted the service to interstate highways, bypassing small towns. Also, much of it is scheduled to provide for morning outbound trips from the Twin Cities and evening inbound trips to facilitate connections to schedules headed for major cities in other states.

The network is discussed in more detail in the next chapter, but the important elements of Jefferson Lines' policies include the focus on Minnesota services, on rural areas and small towns, and the continued willingness of the carrier to apply for the available funding and provide the local match required. The importance of this last point should not be underestimated, as few private carriers are willing to apply for such funding without a public source (state or local) for the 50% non-federal share of the operating deficit, as it implies a loss on every mile operated. If Jefferson Lines was not willing to do this, the state would have to provide the local match itself, or ask for local governments to provide it (which is highly unlikely)—or face the loss of most intrastate bus services. However, there may be a limit to the firm's willingness to provide the local match. Jefferson has utilized the Pilot Project funding method for one route with relatively low revenue—this permits the firm to provide the match with the value of in-kind capital used on connecting unsubsidized service. In addition, it should be noted that Jefferson Lines has shown a willingness to work with local transit providers regarding stops, feeder services, etc., and with local governments to obtain community support for ticket sales and its S.5311(f) applications.

Greyhound Lines

The other major traditional intercity carrier in the state is Greyhound Lines. Greyhound is the only national network of scheduled intercity bus service, and it performs a critical function in linking the other smaller regional services around the country. It is a private for-profit firm, now owned by FirstGroup, PLC of the United Kingdom. Greyhound is not the largest carrier in Minnesota, but its policies regarding coordination with other services must be recognized in the development of intercity bus programs. Like the airlines, intercity bus ridership fell after 9/11/01, and during the same period Greyhound faced increased competition from independent and ethnic bus companies in many parts of the country. It also faced the costs of implementing the Americans with Disabilities Act (ADA), and the increases in fuel and insurance costs.

With a change in management, Greyhound conducted a system restructuring during 2004-2005, eliminating low ridership stops and routes. Basically, in order to fully utilize its fleet, and return to profitability, it has focused service on routes between larger urbanized areas, responding to customer requests for more frequent express services. Local service with many intermediate stops, routes serving non-urbanized locations, and many routes not operating on the Interstate highways or other

expressways have been dropped. Nationwide almost a thousand rural and small urban places lost service under this restructuring. During this same period Greyhound also withdrew from almost all of the S.5311(f) funded services it was providing, including a substantial amount of service in Minnesota.

Since that time Greyhound Lines went through a long period in which it did not seek S.5311(f) funding for its own operations, but focused instead on increasing its coordination with smaller regional intercity carriers and increasingly with public transit providers, who are operating services connecting the rural areas with the Greyhound stops in urbanized areas. S.5311(f) funding is intended to provide exactly this type of service, and the firm wants to expand its cooperation with states and rural transit operators. However, Greyhound Lines under FirstGroup ownership may now be more open to seek S.5311(f) funding for its own operations or for capital for vehicles, terminals, or accessibility. Routes with limited through traffic, such as the Duluth to Minneapolis route, are particularly vulnerable if there is a decline in revenue or a spike in operating costs that reduce profitability. Earlier this year Greyhound dropped the Fargo extension of the Chicago-Minneapolis service, perhaps for these reasons.

Greyhound has taken a number of steps to facilitate increased coordination with rural feeder operators. It has worked with the USDOT, states and transit operators to develop an approach to insurance that will allow Greyhound to quote connecting rural transit services in its schedule information system without requiring that they carry the full private sector insurance levels called for by the FMCSA. Greyhound has supported the development of the concept of using the capital value of its services as in-kind match for operating assistance on connecting subsidized services under S.5311(f). And it has worked with the NBTA to develop a way for rural feeders to participate in the interline ticketing system.

Greyhound's view of coordinated rural-intercity service includes the following elements:

- Connecting service (to Greyhound) should be scheduled, not demand-responsive (so the schedule information system can quote times to customers),
- Connecting carriers should have proper operating authority and insurance levels,
- Connecting service should be operated at least five days per week,
- Connecting service should not duplicate existing service, either by Greyhound or another carrier or subsidized transit service,

- Connecting carriers should offer proper ticketing and package express service,

- Connecting carrier information should be available nationwide as part of the national intercity bus network.

Greyhound has developed a manual outlining this overall coordination approach, which is available on the internet[2] The firm offers several ways to coordinate on ticketing and information. These include a role for the rural connecting carrier as a formal interline partner (accepting Greyhound tickets and package express service over the national bus network and providing tickets that are accepted by other carriers in the interline system), or as a Commission Agent (selling Greyhound tickets and package express service for a percentage commission), or simply allowing Greyhound terminal access with no joint ticketing. If a connecting carrier wishes to be included in Greyhound's national schedules and telephone/internet schedule information system, it must be an interline partner.

For liability reasons, Greyhound requires that its interline partners have FMCSA authority to operate (an MC number and a USDOT number)—even if they do not themselves operate in interstate service. However, Greyhound accepts different insurance levels so that an FTA funding recipient might not need the full $5 million in coverage. Greyhound requires $1.5 million combined single limit liability for vehicles with a seating capacity of 15 or less, $2 million for vehicles with a capacity of 16-30, and $5 million for vehicles with a capacity over 30. For access to Greyhound terminals other carriers are required to have general liability insurance with a combined single limit of at least $1 million. Jefferson Lines has also embraced the rural feeder concept with a number of rural transit operators providing connections to its scheduled intercity routes, though none in Minnesota. Jefferson Lines is somewhat more flexible than Greyhound with regards to the insurance requirements. Under FMCSA rules, interstate commercial vehicle operators that receive FTA funding are only required to have the highest insurance levels required by the states served.

Interlining and the National Bus Traffic Association

The NBTA is a non-profit association created by the bus industry in 1933 as a clearinghouse for interline ticket revenue, as a tariff publisher, and to deal with interline baggage and package express in terms of liability and revenue. It currently has 59 member firms that provide scheduled intercity bus service. Greyhound is a member, as is Jefferson Lines. Interline tickets allow a passenger to buy a single ticket that provides

[2] Greyhound Lines, Inc., Rural Feeder Service Handbook, February 2007, available at http://www.greyhound.com/revsup/rfs/index.html.

travel over two or more different bus companies. The NBTA clearinghouse allows the different firms that provide transportation on a particular ticket to collect their proportionate share of the revenue based on the part of the trip that carrier provided. The proportionate share is calculated based on the ratio of the miles a particular passenger was transported on that carrier to the total miles of the passenger's trip. This is called the mileage prorate. The participating carriers submit their bill for their share of these revenues on a monthly basis, and the NBTA clearinghouse processes all of these claims.

Normally membership involves placing some equity into the "bank" that provides liquidity to this function, along with other qualifications (including a number of requirements on the ticket itself). However, to facilitate participation in interline arrangements by S.5311(f) funded operators or other transit agencies, NBTA has created a category of membership called a Sponsored Membership, in which a rural connector can participate in the interline system through a member carrier that is their Sponsoring Member (most likely an interline partner). The rural connector pays only a $100 annual membership fee to NBTA, and it can then sell interline tickets on the sponsoring carrier's ticket stock from originating points on the sponsoring carrier's routes. The sponsored rural transit connector would be required to honor tickets issued by other NBTA members for services originating on their lines. The sponsoring NBTA member secures the "reclaims" for the sponsored member. It should be noted that both Jefferson Lines and Greyhound are NBTA members, and participation as a sponsored interline partner would make the rural connector a Greyhound interline partner (if the operator met the Greyhound insurance standards), with schedules and fares quoted on the nationwide Greyhound telephone/internet information system.

The new policies of the intercity bus industry, particularly the Greyhound and NBTA interlining policies, provide a significant opportunity for both regional private carriers and transit operators, particularly those receiving S.5311(f), to become an integral part of the national intercity bus network. Requiring S.5311(f) contractors or subrecipients to participate to the extent possible would make a great deal of sense, and would likely result in higher ridership and revenue than would otherwise be the case.

EXISTING MINNESOTA POLICY REGARDING THE INTERCITY NETWORK

The State of Minnesota is involved with intercity bus services in several ways—one is through the implementation of the FTA S.5311(f) Rural Intercity Bus Assistance Program through the Office of Transit in Mn/DOT, a second is the state implementation of federal safety and hours of service laws, and a third is the remaining

state requirements on private intrastate carriers. These state programs are addressed in this section.

Minnesota Regulation of Intercity Bus Transportation

With the federal deregulation of passenger carriers under the BRRA of 1982 and the ICC sunset legislation in 1989, state regulation of fares, entry, and exit was pre-empted by the federal rules. Like many states, Minnesota revised its regulations to focus on safety and financial responsibility. In Minnesota, the relevant state statutes are: *Intercity Bus - 168.61 to 168.65; Inspections – 169.781; Passenger Carrier; Registration, Exemptions – 221.0252; and Financial Responsibility Requirements – 221.141.* Minnesota requires an annual vehicle inspection. Similar to other states, Minnesota directs operators to meet FMCSR for Inspection, Repair, and Maintenance in 49 CFR, Part 36; and the insurance required of a motor carrier of passengers must be at least that amount required of interstate carriers under Code of Federal Regulations, Title 49, Section 387.33.

The Office of Freight and Commercial Vehicle Operations (CVO), a unit within Mn/DOT, administers and approves vehicle registration requirements for vehicles used in interstate and intrastate services. The CVO also approves operating authority for intrastate operators. Requirements for intrastate and interstate carriers are summarized below.

Intrastate Motor Carriers of Passengers

For an Intrastate Motor Carrier of Passengers, the following must be satisfied as part of the Vehicle Registration Application: vehicle inspection by certified vehicle inspector (certified by the Minnesota Department of Public Safety (DPS)), pay application fee, complete Motor Carrier Identification Report, Evidence of Worker's Compensation form, proof of compliance with financial responsibility requirements, criminal background checks on drivers, and attend training seminar within 90 days of being issued a certificate. An individual that is certified, which requires that the individual will have received training from the State Patrol, must conduct annual inspections, based on statute information. The certified individual, upon completing the inspection, documents findings in the inspection report.

The DPS includes many state agencies devoted to the protection of people and property. The State Patrol is an agency within the DPS, and regulates and enforces commercial vehicle operations. It is through this agency that motor carriers of passengers must satisfy vehicle registration, insurance, CDL, and vehicle inspection requirements. Commercial vehicles are still required to obtain a USDOT number and satisfy the FMCSA requirements.

Interstate Motor Carriers of Passengers

For an Interstate Motor Carrier of Passengers the operating authority is obtained through the FMCSA, and the carrier provides proof of satisfactory FMCSA status to the CVO. In addition, carriers required to obtain authority from the FMCSA must register their operations with the state in which the carrier's headquarters is located using the Unified Carrier Registration form. A vehicle inspection is also required, and the interstate inspector qualifications include an understanding of the Minnesota inspection criteria, mastery of tools used in inspection, and training and/or experience directly related the commercial vehicle. The inspector does not have to be an employee of the CVO or DPS, and the Minnesota State Patrol approves inspections conducted outside the state.

Minnesota's Intercity Bus Program

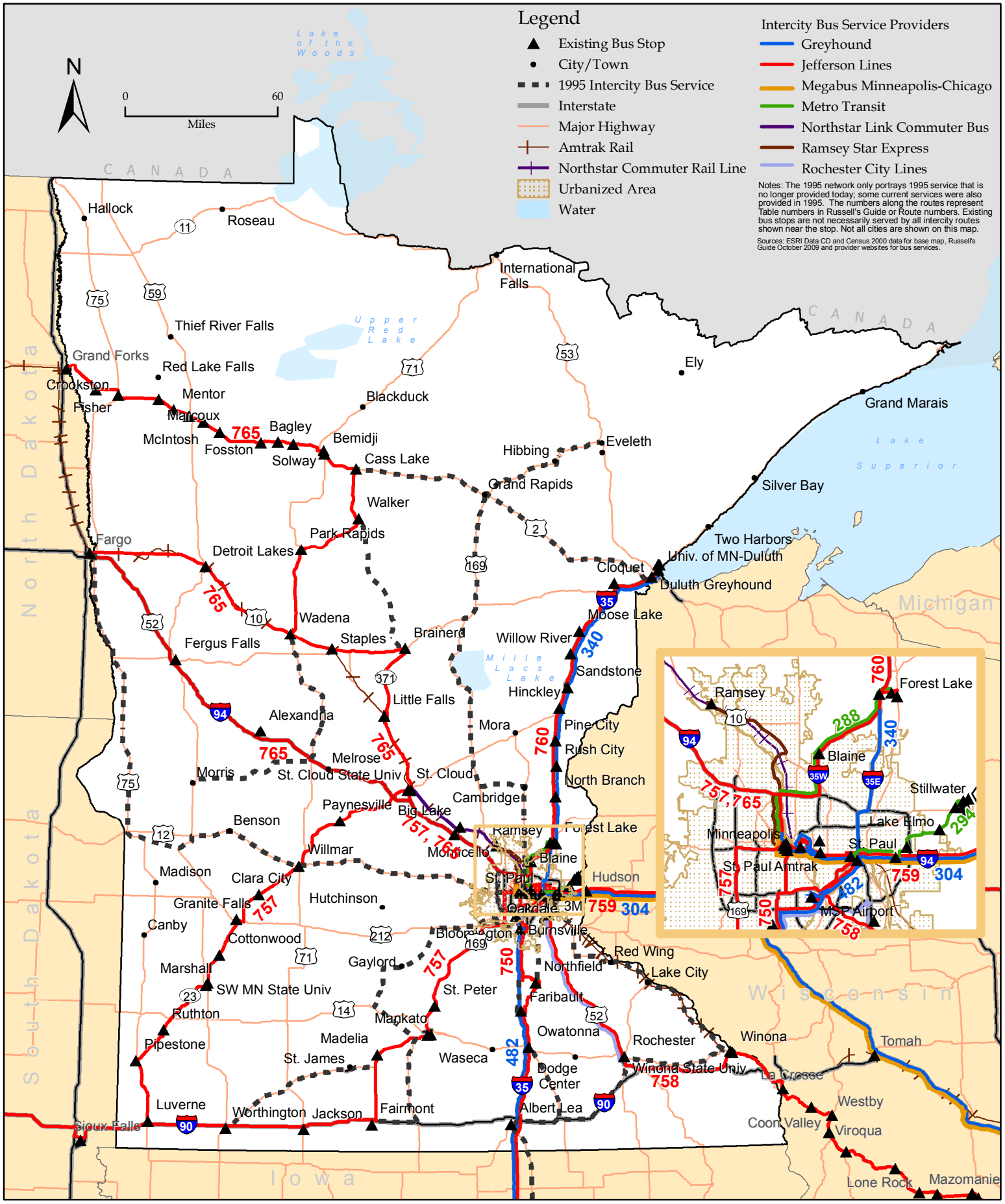
The Department of Transportation's Transit Program uses federal and state funding for capital and operating assistance to support local, regional, and intercity public transportation services. It oversees the FTA S.5311, S.5311(f), S.5310, S.5316, and S.5317 programs, providing funding under a competitive program of public transportation grants, in which all applicants submit grant applications every two years, and a competitive review process conducted by a designated committee selects the projects.

Program History

In 1997 Mn/DOT completed a comprehensive study of rural intercity bus needs in the state. This study led to the creation of the current program, with a focus on operating assistance to maintain rural intercity coverage, marketing, limited assistance for accessibility and maintenance capital, and some participation in passenger facilities. Since the program's inception following the 1997 study, Mn/DOT has funded operating assistance projects each year. Initially both Greyhound and Jefferson Lines received funding for different routes, and a year-by-year review of the routes served and projects would reveal that a number of different schedules and routes were implemented over time in an attempt to serve many of the smaller towns in Greater Minnesota. Figure 1-1 presents the current overall intercity network, with dashed lines showing the routes that were served at the time of the previous study. As can be seen, despite the availability of operating assistance, there has been a loss of service coverage over this period.

The operating assistance program faced its greatest challenge in August of 2004, when Greyhound restructured its services to reduce vehicle miles in regions with low revenue and high costs in an effort to increase utilization and improve profitability.

Figure 1-1: Existing Intercity Bus Services by Provider



The initial phase of this restructuring involved service reductions in the north central region of the country, including Minnesota. The Greyhound plan also included a change in corporate philosophy regarding S.5311(f) funding, with the firm announcing that it would no longer operate rural intercity services under grant agreements with the states. Greyhound maintained that because of the match requirements it was unable to generate enough revenue on these routes from the combination of fare revenue and subsidy. It announced that it would end all S. 5311(f) funded service in Minnesota, with limited notice. Mn/DOT contacted its other S.5311(f) grantee, Jefferson Lines, who agreed to provide service on the Greyhound routes under six month contracts. Jefferson service started immediately after the end of Greyhound service, utilizing lift-equipped buses and with additional marketing.

Over time the program has also funded a number of capital projects, though current capital projects are limited to capitalized maintenance for the Jefferson fleet used for S.5311(f) service. One early capital project that resulted in a federal policy change was the use of S.5311(f) funding for a small portion of the Hawthorne Transportation Center in Minneapolis, which is the intercity bus terminal for that city. Mn/DOT was able to get FTA to allow the use of this rural funding for a project in an urbanized area because the project will serve rural residents who use rural intercity services to the station. The FTA program guidance now allows the use of S.5311(f) on projects in urbanized areas in proportion to their use by rural riders. Other capital projects have included funding to Jefferson Lines for vehicle rehabilitation, and to Greyhound Lines to retrofit over-the-road buses with wheelchair lifts to aid in compliance with ADA requirements.

The program has also funded marketing efforts for intercity bus, including route specific marketing elements of operating assistance projects, and other marketing studies, including a 2001 marketing research effort by Jefferson Lines that included focus groups and surveys.

Current Program Purpose and Objectives

The Minnesota S.5311(f) program purpose follows guidance as included in FTA Circular 9040.1C. The program purpose includes the prescribed definition of intercity bus transportation, but also includes specific language excluding commuter service from the definition. The National Program Objectives generally support meaningful connections, services that address intercity needs of residents in non-urbanized areas, and the infrastructure of the intercity bus network; these objectives are also included in the Minnesota program. However, in addition to the federal program objectives, state program priorities are guided by the desire to support those projects that address connectivity for Greater Minnesota between regional trade centers as well as between rural Minnesota and the Twin Cities Metropolitan area.

The following types of projects are eligible under the Mn/DOT S.5311(f) program:

- Operating assistance for existing routes at risk of being shutdown and for new routes,
- Capital assistance for the construction of stations, terminals, and shelters or vehicle retrofit costs for accessibility equipment required to meet ADA,
- Marketing, and
- Planning studies.

Requests for operating assistance must contain locally specific marketing activities regardless of whether assistance for a full marketing and/or market research project is the subject of the application. Operating assistance projects require the carrier to fully define the service in terms of frequencies, days of service, schedules, and stops. A route-specific marketing plan is strongly encouraged. The applicant must project its costs and revenues for the particular route, estimate its net operating deficit, and identify the source of the local operating match. The state does not provide any portion of the local match for operating projects, so an applicant would have to obtain it from local governments, or provide the match itself. The match ratio is the same as the other S.5311 projects, with the federal share not to exceed 50% of the net operating deficit, and the remainder provided as local match. The net operating deficit is defined as the total operating costs less revenues.

In Minnesota, the revenues to be considered include fare revenue, bus package express, and advertising. Capital projects require a 20% local match, with the remaining 80% provided out of federal funds. One significant difference between the federal guidance and the Minnesota program is that the state provides capital funding only for passenger facilities and retrofitting vehicles to meet ADA accessibility requirements. Vehicle capital costs for replacement or expansion vehicles for rural intercity services are not eligible under the state's version of the capital program, even though these uses are permitted under the federal program regulations.

Eligible Applicants

Entities eligible to submit a project application include: private, for-profit intercity carriers; private, non-profit intercity carriers; local transit providers, or public bodies proposing to provide intercity bus service. Each entity type is required to submit documentation that supports their legal status.

Carriers must hold the appropriate operating authority or be in compliance with Federal Motor Carrier Regulations by January 1, 2007. The S.5311(f) application includes this requirement, but does not provide any further guidance as to the appropriate operating authority or sources for further information on compliance with this requirement.

Technical Assistance

Mn/DOT is committed to providing technical assistance in completing the application. General duties include: providing technical assistance to intercity carriers while completing the application; facilitating coordination; preparing a statewide comprehensive application for FTA; and conducting ongoing evaluations and monitoring project results.

Application (Project) Review

The Office of Transit conducts a preliminary review of applications to determine completeness of applications submitted. Then, after the submission deadline has passed, the Intercity Review Committee will review applications and rank them in order of funding importance. Potential committee membership includes: Mn/DOT staff, Metropolitan Planning Organization (MPO) or Regional Development Commission (RDC) representatives, a public transit representative, and a member of the Interagency Committee on Transportation Coordination.

Period of Performance

Typically applications are solicited on a bi-annual basis with two-year contracts beginning January 1.

Certification of No Unmet Rural Intercity Needs

The S.5311(f) program provides for a set-aside of 15% of a state's total allocation of S.5311 funding for use on rural intercity projects, unless the Governor certifies that there are no unmet rural intercity needs. In that case the S.5311(f) rural funding can be used for other rural transit projects. Following the 1997 bus study, Minnesota has never certified that there are no unmet needs, and each year it has used some portion of the available S.5311(f) funding for rural intercity projects.

Funding Availability and Usage

Table 1-1 presents a summary of the available S.5311(f) funding under the current federal transportation authorization bill, SAFETEA-LU. The Section 5311(f) allocation is based on the 15% share of the state's overall S.5311 allocation. The table also shows the utilization of the 15% share for each year. Note that unspent FTA funds lapse after three years, and that prudent state management would shift unspent S.5311(f) funds to other S.5311 projects rather than lose them. Also, a state may use more than the 15% of its S.5311 funding for rural intercity bus projects—that amount is not a cap, but a minimum (unless there is a full or partial certification of no unmet needs).

In its most recent application, the state indicated that $3.2 million was available for the combined period of Calendar 2007 and 2008. This table presents the invoice amounts for that period to provide some information about the potential capacity of the federal program to support additional services or projects. It would appear that there may be carryover balance going into FY09, but this table should not be construed as a complete current account statement of the Mn/DOT S.5311(f) program.

Current S.5311(f) Operating Projects. Figure 1-2 presents the routes that are currently funded under the Section 5311(f) operating program. All of them are operated by Jefferson Lines. Table 1-2 presents a summary of the operating results for Calendar 2007, and Table 1-3 presents a similar table for 2008. The tables include the route endpoints and the map shows the routing, but additional information of importance includes the frequency and schedule patterns, which are presented in the overall service summary in the next chapter.

Table 1-1: Minnesota Section 5311(f)
Funding Utilization and Availability

Federal Fiscal Year	S.5311 Apportionment	Available S.5311(f) at 15%
2004	$5,874,251	$881,138
2005	$6,148,482	$922,272
2006	$10,619,732	$1,592,960
2007	$11,178,461	$1,676,769
2008	$12,053,851	$1,808,078

Data from 2004-2008 FTA Fiscal Year Apportionments and Allocations

Figure 1-2: Existing 5311(f) Routes in Minnesota

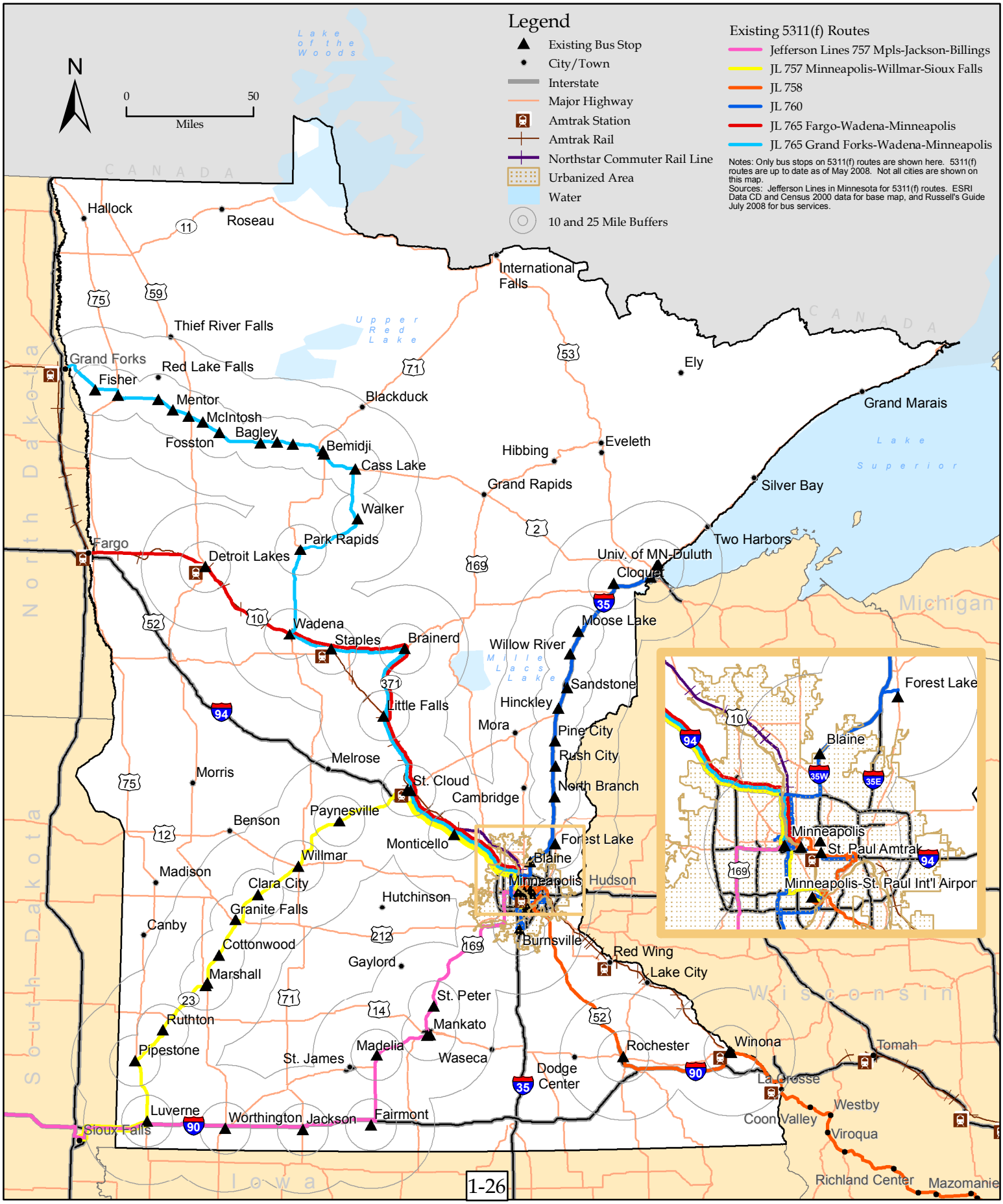


Table 1-2: Minnesota Intercity Bus Program Summary

Schedule Number	Route Description	Overall Route Length	Minneapolis Portion	Boardings	Minnesota Revenue: Total 2007	Operating Cost Total 2007	Farebox Ratio Average 2007
701a	Minneapolis-Sioux Falls	272	254	9,954	$204,666.17	$232,133	88%
702a	Sioux Falls-Minneapolis	262	244	7,894	$153,471.90	$269,359	57%
	701/702 Total	534	498	17,848	$358,138.07	$501,492	72%
901	Minneapolis-Madison	322	180	8,553	$109,756.17	$196,164	56%
902	Madison-Minneapolis	316	174	8,324	$97,675.29	$189,105	52%
	901/902 Total	638	354	16,877	$207,431.46	$385,269	54%
905	Minneapolis-Duluth			66	$1,298.89	$7,234	18%
906	Duluth-Minneapolis			408	$0.00	$0	0
	905/906 Total			474	$1,298.89	$7,234	18%
907	Minneapolis-Duluth			520	$1,123.88	$1,783	63%
908	Duluth-Minneapolis			105	$1,596.14	$7,407	18%
	907/908 total			625	$2,720.02	$9,191	24%
909	Minneapolis-Duluth	181	181	7,517	$141,089.09	$166,909	85%
910	Duluth-Minneapolis	177	177	7,196	$121,819.46	131,943	92%
	909/910 Total	358	358	14,713	$262,908.55	$298,852	88%
925	Minneapolis-Sioux Falls	290	272	4,202	$101,656.92	$297,427	34%
926	Sious Falls-Minneapolis	277	259	3,678	$86,075.84	$283,211	30%
	926/926 Total	567	531	7,880	$187,732.76	$580,683	32%
927	Minneapolis-Fargo*	300	365	6,033	$173,338.45	$304,949	55%
928	Fargo-Minneapolis*	359	353	6,526	$149,366.99	$300,989	49%
	927/928 Total	729	717	12,559	$322,705.44	$605,939	52%
929a	Minneapolis-Wadena			5,253	$18,809.96	$33,559	55%
929b	Wadena-Fargo			3,170	$36,851.49	$61,626	60%
	929 total			8,423	$55,661.45	$95,185	60%
920a	Wadena-Minneapolis			6,809	$87,345.57	$91,971	96%
930b	Fargo-Wadena			4,633	$45,081.27	$53,241	85%
	930 Total			11,442	$132,426.84	$145,212	91%
TOTALS				90,841	$1,531,023.00	$2,629,011	58%

Table 1-3: Route Performance Summary for 2008

Schedule Number		Route Description	Boardings Total 08	Minnesota Revenue Total 08	Operating Cost Total 08	Farebox Ratio Average 08
	701a	Minneapolis-Sioux Falls	12,235	$144,241.85	$197,691	84%
	702a	Sioux Falls-Minneapolis	11,735	$197,295.80	$269,771	73%
701/702 Total			23,970	$341,537.65	$467,462	77%
	901	Minneapolis-Madison	5,103	$69,790.42	$96,601	73%
	902	Madison-Minneapolis	4,502	$54,737.65	$92,902	60%
901/902 Total			9,605	$124,528.07	$189,503	67%
	905	Minneapolis-Duluth	165	$3,339.14	$16,280	19%
	906	Duluth-Minneapolis	1,213	$995.00	$3,209	80%
905/906 Total			1,378	$4,334.14	$19,489	24%
	907	Minneapolis-Duluth	1,226	$3,068.63	$3,327	91%
	908	Duluth-Minneapolis	309	$6,267.14	$15,483	38%
907/908 Total			1,535	$9,335.77	$18,810	46%
	909	Minneapolis-Duluth	9,489	$137,088.05	$162,406	84%
	910	Duluth-Minneapolis	10,186	$48,432.97	$52,169	93%
909/910 Total			19,675	$185,521.02	$214,575	86%
	925	Minneapolis-Sioux Falls	641	$16,546.41	$39,552	42%
	926	Sioux Falls-Minneapolis	533	$12,620.48	$36,866	36%
925/926 Total			1,174	$29,166.89	$76,418	39%
	927	Wadena-Grand Forks	2,351	$45,904.84	$117,094	39%
	928	Grand Forks-Wadena	2,538	$47,721.19	$118,848	41%
927/928 Total			4,889	$93,626.03	$235,942	40%
929a		Minneapolis-Wadena	9,412	$107,990.87	$156,236	69%
930a		Wadena-Minneapolis	11,158	$107,957.20	$138,674	78%
929 Total			20,570	$215,948.07	$294,910	75%
929b		Wadena-Fargo	3,776	$43,079.92	$106,653	40%
930b		Fargo-Wadena	5,468	$56,606.68	$98,390	57%
930 Total			9,244	$99,686.60	$205,043	48%
921		St. Cloud-Willmar	285	$2,394.21	$12,016	17%
923		Willmar-Sioux Falls	307	$4,848.22	$12,660	27%
924		Willmar-Minneapolis	212	$2,481.70	$21,094	11%
925		*Minneapolis-Willmar*	2,678	$47,679.84	$137,355	33%
926		*Sioux Falls-St. Cloud*	2,493	$54,639.52	$142,625	36%
new 925/926 Total			5,975	$112,043.49	$325,750	35%
Totals			98,015	$1,215,728.73	$2,047,901	59%

Note: The new segments 921, 923, 924, and changed 925 and 926 began in April 2008, though in July 2008, routes 925 and 926 were expanded to cover the 921, 923, and 924 services.

Intercity bus companies typically evaluate routes based on the comparison between their revenue per mile and the cost per mile, which is the same as the transit performance measure for farebox recovery. Of significance in the performance summary for these routes is the high level of farebox recovery, which was 58% for all the routes combined and reached as high as 91% in 2007. The high farebox recovery suggests several things. One is that the users value these services highly, and are willing to pay the fares or endure the low service levels (which reduces costs) in order to obtain this transportation. A second is that the service levels have been reduced in order to reduce the costs. This is reflected in the fact that on some of these routes the frequency is now less than daily, and that in some cases the schedule patterns do not allow morning inbound trips to the Twin Cities, but rather reflect the needs to provide intercity connections at distant points. A third is that the amount of service has been well matched to the demand, and the system as a whole is relatively efficient. This is particularly true in comparison to other public transit programs, in which rural services typically generate farebox recovery levels of 5%-10%, and urban services in the range of 30%-40%.

Current S.5311(f) Capital and Marketing Projects. In addition to the operating assistance provided to Jefferson Lines, over the past two calendar years Mn/DOT has provided S.5311(f) for capitalized maintenance on the buses, and for some equipment involved in servicing the vehicles (lifts, for example). In addition, the state has provided some federal funding to pay the costs of marketing the services. For both types of projects the carrier has provided the local match.

SUMMARY

Many factors have contributed to the development of Minnesota's intercity bus network and the existing policies of the state's S.5311(f) program. Funding, specifically the requirement for local match, is a major issue that hampers improvements to existing rural intercity bus services, much less the creation of new services. From the perspective of the bus company, the state's S.5311(f) program provides an incentive to minimize costs in that the carrier must provide the local match, and that results in loss on every subsidized bus mile; the loss is just reduced due to the available federal funding. That is one reason that Greyhound Lines gave up its S.5311(f) routes across the country—the combination of fare/express revenue and a federal subsidy for 50% of the net deficit did not allow the firm to recover its fully-allocated operating costs for those services. Minnesota has been fortunate that its state-based carrier has been willing to provide this local match, but it is possible that the amount of carrier funding available for the match is limited.

Such funding limits would lead the company to operate service levels and schedules so as to remain within their own budget for the available match, and be reluctant to operate services that require a high level of subsidy. This may be one reason that the firm has requested 100% federal funding under the FTA Pilot Project in-kind match for the Minneapolis-Sioux Falls route via Marshall and Willmar, which has low ridership and high subsidy requirements. The high financial performance of the routes, combined with the inventory showing the limited frequencies and the schedule patterns, raises two questions: Does this level and type of service meet user needs? and if not, would additional funding (state funds for match, for example) allow for more usable service? The next chapter provides an inventory of the level of intercity bus services currently available, and chapter three addresses the user needs and their opinions of existing service.

Chapter 2

Inventory of Existing Intercity Bus Services

In order to provide some basic information, this chapter presents an overview of the services that might be considered as intercity, irrespective of their eligibility for particular federal programs. These routes or services all provide service over long distances between towns or cities, and they operate for the most part as fixed-route, fixed schedule services. There are three broad categories of service—traditional intercity bus service provided by Greyhound Lines and Jefferson Lines; several long commuter express routes operated by public transit operators; and a number of intrastate services operated between outlying towns and the Minneapolis-St. Paul Airport (MSP). This inventory will be compared to the intercity transportation needs discussed in the next chapter to identify service gaps and develop potential alternatives for improved and expanded intercity bus service.

"TRADITIONAL" INTERCITY BUS SERVICES

These services are provided by Greyhound Lines and Jefferson Lines, and would immediately be identified as intercity bus service by the general public. These carriers are members of the National Bus Traffic Association (NBTA), and they sell interline tickets that allow travel on all carriers that are members of that association. They have their own designated stops, many staffed by agents who sell tickets, handle package express, and provide information. The agents receive a commission on the sale of tickets and package express payments. Information about these services is provided through the carrier's own websites and public timetables, in Russell's Official National Motor Coach Guide, and through their telephone information systems.

The services are provided with 40- or 45-foot over-the-road buses, and operate on fixed routes and fixed schedules. Accessibility under the Americans with Disabilities Act (ADA) follows the requirements for private operators of over-the-road buses, which requires provision of an accessible bus and trained staff on 48 hours of advance notice by the rider. The intercity bus routes serving Minnesota were illustrated in Figure 1-1, which includes all the intercity routes. Each route is described below, organized by carrier.

Greyhound Lines

Table 304, Chicago-Milwaukee-Madison-Fargo

Greyhound Lines operates five round-trips per day from Chicago to Minneapolis, with Minnesota stops in St. Paul and Minneapolis (Hawthorne Transportation Center). Until recently two of these schedules also continued on to (and returned from) Fargo, North Dakota, with Minnesota stops in St. Cloud, Alexandria, and Fergus Falls. These services are not subsidized.

Table 340, Duluth-Minneapolis

Greyhound Lines operates one round-trip per day between Minneapolis, St. Paul and Duluth—with no other intermediate stops. This service is not subsidized.

Table 482, Minneapolis-Kansas City-Tulsa-Dallas

Effective September 15, 2009 Greyhound Lines operates one round-trip per day from Dallas to Minneapolis and St. Paul. This service is unsubsidized.

Jefferson Lines

Table 750, Minneapolis-Mason City-Des Moines-Kansas City

Jefferson Lines provides three round-trips per day from Minneapolis to Kansas City, with Minnesota stops at the Coffman Union of the University of Minnesota (one schedule each way), St. Paul (one schedule southbound, two northbound), MSP Airport (two schedules each way), Burnsville Transit Center (three each way), Northfield (three each way), Faribault (three southbound, two northbound), Owatonna (three southbound, two northbound), and Albert Lea (three each way). These schedules are not subsidized, but are used to provide the in-kind match for other S.5311(f) services in Table 757.

Table 757, Minneapolis-Sioux Falls-Rapid City-Billings

This table includes two somewhat distinct services. Schedule 925 operates on Monday, Wednesday, Friday, and Sunday outbound from Minneapolis to Sioux Falls, operating express to St. Cloud, and then local with stops in Paynesville, Willmar, Clara City, Granite Falls, a flag stop in Cottonwood, Marshall, Ruthton, Pipestone, and Luverne before arriving in Sioux Falls, South Dakota. Inbound, Schedule 926 operates on Wednesday, Friday, and Sunday, with local service at the same points, and express service after St. Cloud, arriving at the airport at 4:45 p.m.

Schedules 701 and 702 operate daily, with the outbound bus from Minneapolis in the morning having local stops at St. Peter, Mankato, Madelia, Fairmont, Jackson, and Worthington, and then operating express to Luverne and Sioux Falls. Inbound it leaves Sioux Falls in the late afternoon, with a stop in Luverne, and then express to Worthington, with the same local stops inbound, arriving at the bus station in Minneapolis at 8:15 p.m. The 701 and 702 schedules are part of a service that continues on to Billings, Montana. These schedules are all funded on their Minnesota segments with S. 5311(f) funds.

Table 758, Minneapolis-Rochester-La Crosse

This service operates less than daily. Schedule 901 operates outbound from Minneapolis in the morning on Wednesday, Friday, and Sunday, with local stops in Minnesota at the University of Minnesota (Coffman Union), a school-term stop at the University of Minnesota St. Paul, St. Paul, the MSP Airport, Rochester, Winona, and then on to La Crosse, Wisconsin with additional stops before the service ends in Madison. Schedule 902 operates on Monday, Thursday, and Saturday. It provides inbound service leaving Madison shortly before noon, with Minnesota stops in Winona and Rochester, and stops at the other outbound destinations listed on demand only. It arrives in Minneapolis at 8:00 p.m. These services are funded with S.5311(f) funds.

Table 759, Minneapolis-Green Bay-Milwaukee

This is a new service, with daily Minnesota stops only in Minneapolis, at the University of Minnesota (Coffman Union), and St. Paul. It continues on to Green Bay, Wisconsin and then Milwaukee. It is funded with Wisconsin S.5311(f) funds.

Table 760, Duluth-Minneapolis

This service includes a daily local round trip, and school-term services on Friday and Sunday. Schedules 910 and 909 provide the daily round-trip, leaving the University of Minnesota in Duluth in the late afternoon, stopping at the Greyhound station in Duluth, in Cloquet, Moose Lake, Willow River (on demand only), Sandstone, Hinckley, Pine City, Rush City, North Branch, Forest Lake, St. Paul, St. Paul Amtrak, University of Minnesota (Coffman Union), and Minneapolis. The northbound schedule leaves Minneapolis in mid-morning, arriving at the University of Minnesota in Duluth at 3:35 p.m.

Schedule 906 operates during the school year, leaving the University of Minnesota in Duluth on Fridays at 2:00 p.m., and operating express to the Blaine Transit Center, the University of Minnesota campus in St. Paul, the University of Minnesota (Coffman Union), Minneapolis, Burnsville Transit Center, and the MSP Airport. The

return schedule is 905, which operates on Fridays during the school year, with all the same stops except that it adds stops at the College of St. Scholastica in Duluth.

The other pair of schedules operates on Sundays during the school year. Schedule 907 operates from the Minneapolis-St. Paul Airport, the Burnsville Transit Center, Minneapolis, the University of Minnesota (Coffman Union), the University of Minnesota campus in St. Paul, the Blaine Transit Center, the Duluth Transit Center, the College of St. Scholastica, and the University of Minnesota in Duluth on Sundays, leaving at 3:00 p.m., and arriving at 7:05 p.m. Schedule 908, the reverse of the schedule, leaves the University of Minnesota campus in Duluth at 7:15 p.m., making all the same stops, and arriving at the MSP Airport at 11:00 p.m. This schedule appears to exist only to return the bus to Minneapolis, as there are few (if any) airline departures after that time. All of these schedules are subsidized with S.5311(f) funding.

Table 765, Winnipeg-Fargo-Minneapolis/Grand Forks-Bemidji-Brainerd-St. Cloud

These services are a combination of two routes that link Minneapolis with Grand Forks and with Fargo. Schedule 928 operates on Tuesday, Thursday, and Saturday. It leaves Grand Forks, North Dakota at 11:45 a.m. and has Minnesota stops in Fisher (flag stop), Crookston, Marcoux (flag stop), Mentor (flag stop), Erskine, McIntosh (flag stop), Fosston (flag stop), Bagley, Shevlin (flag stop), Solway (flag stop), Bemidji, Cass Lake, Walker, Park Rapids, and Wadena. In Wadena, passengers can transfer to Schedule 930, which operates daily from Fargo, North Dakota, to Minneapolis, with stops in Detroit Lakes, Wadena, Staples, Brainerd, Little Falls, St. Cloud, Monticello, Minneapolis, and the University of Minnesota (Coffman Union), arriving at 8:30 p.m.

In the reverse direction the bus leaves the University at 6:30 a.m., making all the same stops outbound, with arrivals at Fargo at 12:50 p.m. and in Grand Forks at 3:55 p.m. (on Mondays, Fridays, and Sundays). There is an additional trip between St. Cloud, Monticello, and Minneapolis, provided by Schedule 926 (see Table 757, above), which operates inbound at 3:00 a.m., arriving at 4:15 a.m., on Monday, Wednesday, Friday, and Saturday. The return schedule leaves Minneapolis at noon arriving in St. Cloud at 1:15 p.m. on Tuesday, Thursday, Friday, and Sunday. These 925 and 926 schedules are shown in this timetable because they provide an additional trip out of St. Cloud, but they are really part of the service between Minneapolis and Sioux Falls via Willmar and Marshall. All of these services receive S.5311(f) funding.

In addition, Jefferson Lines has added two daily round-trips between Fargo and Minneapolis, replacing former Greyhound Lines service on I-94. Schedule 934 operates in-bound from Fargo (leaving at 8:00 p.m.) to Fergus Falls as an express, then stops in Alexandria and St. Cloud. The return schedule, 932, has stops in the same places, and it

leaves Minneapolis at 7:40 a.m., arriving just after noon. An in-bound morning bus, Schedule 932 leaves Fargo at 7:20 a.m., with stops in Fergus Falls, Alexandria, St. Cloud, and Monticello before arriving in Minneapolis at 11:55 a.m. Its evening return, Schedule 931, leaves Minneapolis at 8:45 p.m., arriving in Fargo at 1:15 a.m. , with stops in all the same places except Monticello.

Megabus

Self-described as a "low cost daily express bus service in the US and Canada" on its website, Megabus provides four trips daily from Minneapolis to Chicago and three trips daily in the return direction. Outbound from Minneapolis, buses leave at 7:00 a.m., 11:30 a.m., 5:00 p.m., and 10:30 p.m.; inbound trips arrive at 2:45 p.m., 11:15 p.m., and 6:30 a.m. This service also stops in Madison and Milwaukee, Wisconsin (though not on every trip).

OTHER SERVICES—COMMUTER BUS SERVICE

Three routes were identified as potentially being considered in the inventory due to the length of the route and the fact that service is provided to points that are outside the Urbanized Area of the Twin Cities. All but the Rochester route are provided by public transit authorities.

City of Ramsey Star Express-Ramsey to Minneapolis

The Ramsey Star Express is a commuter bus service that operates inbound with four morning trips, and outbound in the evening with four trips. Service is weekday only, and operates from a parking facility in Ramsey to the 5th Street Transit Station as express service. The service is subsidized, but not with S.5311(f) funding (commuter service is ineligible).

Northstar Link Commuter Bus-St. Cloud to Big Lake

With the introduction of service on the Northstar Commuter Rail Line from Big Lake into Minneapolis, the former commuter bus service (between Elk River and Minneapolis) has been recast as Northstar Link service connecting St. Cloud with the Northstar Commuter Rail Line station in Big Lake. There are five morning in-bound trips from the East St. Cloud Park and Ride, two of which start at the Metro Bus Transit Center in St. Cloud, with stops at St. Cloud State University (SCSU) before stopping at the East St. Cloud Park and Ride. There are also five afternoon in-bound trips, two of which start at the Metro Bus Transit Center and three of which also stop at SCSU. Outbound from Minneapolis, there are five morning schedules from Big Lake to St.

Cloud, one of which goes on from the East St. Cloud Park and Ride to SCSU and three of which continue on to the Metro Bus Transit Center. Afternoon outbound service has another five trips from Big Lake to St. Cloud, four of which continue on to the Metro Bus Transit Center. Service is weekday only and is also subsidized, but not with S.5311(f) funding.

Metro Transit Express Bus Route 288-Forest Lake to Minneapolis

The Metropolitan Council, which provides the Metro Transit services, contracts with Lorenz Bus Service, Inc., a private for-profit firm, to operate this commuter express service from the Forest Lake Transit Center to downtown Minneapolis, with stops at the Running Aces Park and Ride and the 95th Avenue Park and Ride. It circulates in downtown Minneapolis making several stops. There are six inbound and five outbound trips daily, in the morning and evening peak hours—weekdays only.

Metro Transit Route Express Bus Route 294-Stillwater to St. Paul

Another commuter express route, this service provides six inbound trips from St. Croix Valley Park and Ride in the morning peak, with three outbound schedules. In the evening peak there are five outbound schedules and three inbound schedules. Service is weekday only, and there are several stretches of local service where the buses make stops. In addition, the bus circulates in Stillwater and in downtown St. Paul to provide local access.

Rochester City Lines/Richfield Bus Twin Cities-Rochester

Rochester City Lines provides daily weekday commuter bus service from the Twin Cities to Rochester. Service operates from the 28th Avenue Station parking lot in Bloomington to downtown Rochester and St. Mary's Hospital, with a stop in Inver Grove Heights. There is one round-trip per day. Service is open to the public, with a free transfer to local bus services in Rochester.

Existing Intercity Bus Service Frequencies

Figure 2-1 presents the frequency of the traditional intercity bus services and the commuter bus services described above by route segment, and Table 2-1 presents the frequency by schedule. Note that a number of services are less than daily. The commuter bus services tend to run at the highest frequencies, though the traditional intercity bus services that connect Minneapolis to Madison and to Des Moines have comparable frequencies.

Figure 2-1: Service Frequency of Existing Intercity Bus Services (Roundtrips per Week)

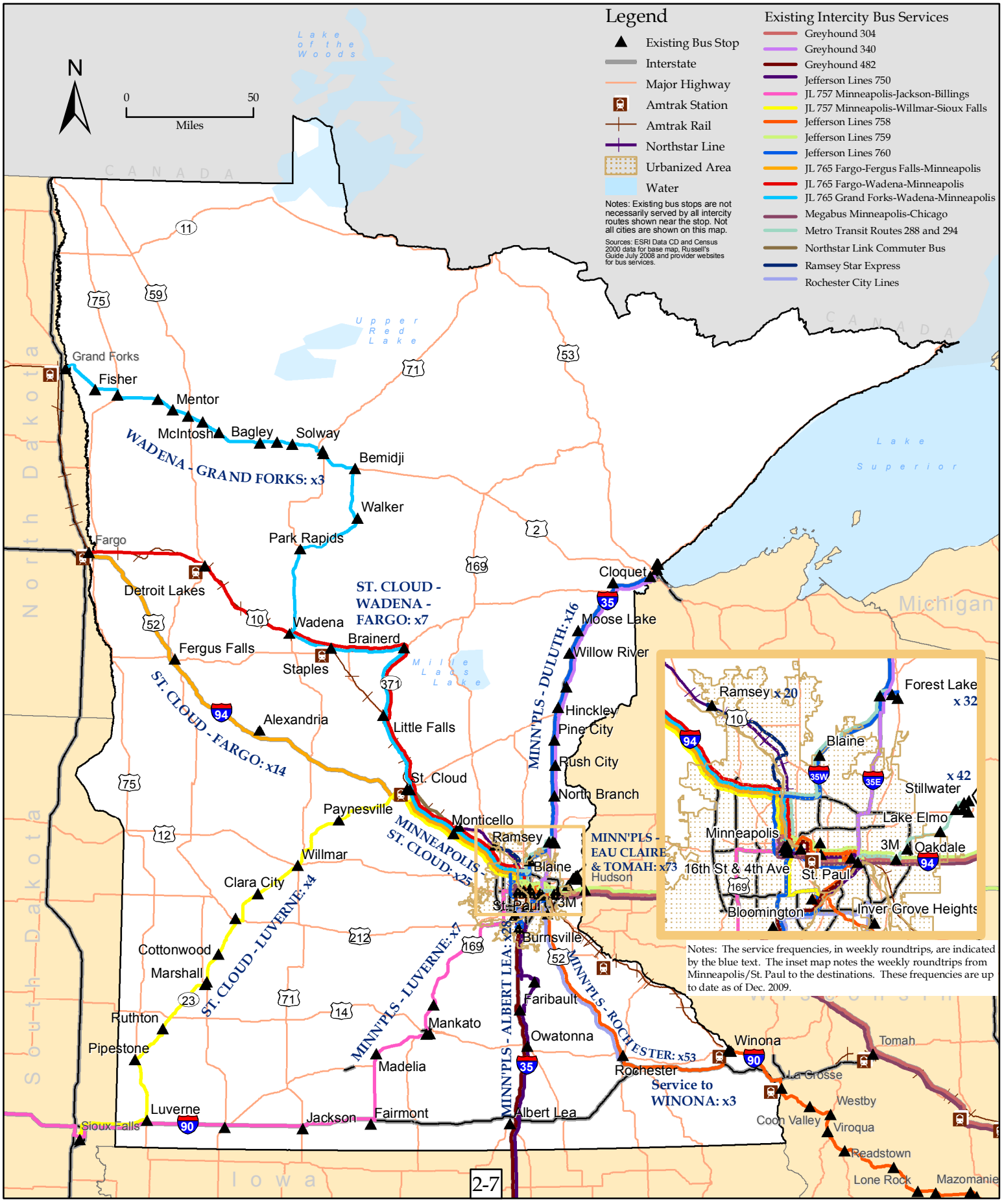


Table 2-1: Service Frequency of Existing Intercity Bus Services in Minnesota

Provider	Table Number	Schedule Number	Route Description	Frequency (Round-trips per Week)
City of Ramsey	n/a	Ramsey Star Express	Minneapolis-Ramsey	20
Greyhound	304	1274/1275	Fargo-Minneapolis-Madison	7
		1276/1277	Fargo-Minneapolis-Madison	7
		5601,5613,5603,5607,5609/ 5604,5610,5622,5640	Minneapolis-Madison	28
			Table Number 304 Total	**42**
Greyhound	340	5913/5914	Minneapolis-Duluth	7
Greyhound	482	6423/6424	Minneapolis-Dallas	7
Jefferson Lines	750	801/802	Minneapolis-Des Moines	7
		804/807	Minneapolis-Des Moines	7
		803/806	Minneapolis-Des Moines	7
			Table Number 750 Total	**21**
Jefferson Lines	757	701/702	Minneapolis-Sioux Falls	7
		925/926	Minneapolis-Sioux Falls	4
			Table Number 757 Total	11
Jefferson Lines	758	901/902	Minneapolis-Madison	3
Jefferson Lines	759	915/916	Minneapolis-Green Bay-Milwaukee	7
Jefferson Lines	760	905/906	Minneapolis-Duluth	1
		907/908	Minneapolis-Duluth	1
		909/910	Minneapolis-Duluth	7
			Table Number 760 Total	**9**
Jefferson Lines	765	927/928	Minneapolis-Grand Forks	3
		929/930	Minneapolis-Wadena-Fargo	7
		931, 933/932,934	Minneapolis-Alexandria-Fargo	14
			Table Number 765 Total*	**21**
Megabus	n/a	n/a	Minneapolis-Chicago	24
Metro Transit	n/a	288	Minneapolis-Forest Lake	25
Metro Transit	n/a	294	St. Paul-Stillwater-Oak Park Heights-Bayport	42
Northstar Link Commuter Bus	n/a	n/a	Big Lake-St. Cloud	50
Rochester City Lines	n/a	Twin Cities Commuter	Bloomington-Rochester	5

*Table 765 has a total of 21 trips, rather than the sum of the schedules listed, because the three Minneapolis-Grand Forks trips connect with the daily Minneapolis--Wadena-Fargo trips in Wadena.

OTHER SERVICES—AIRPORT SHUTTLES

Another type of intercity service is provided by a number of carriers who operate between MSP and smaller cities in Greater Minnesota. In general these operators are intrastate, with no intercity bus interline ticketing. They generally use smaller vehicles such as vans or minibuses, have higher fares than a traditional intercity bus, and require reservations (particularly for trips to the airport). Table 2-2 summarizes the operations as of December 2008, based on data provided through the MSP website.

OTHER SERVICES – POTENTIAL FEEDER SERVICES

In addition to the services that are more readily defined as intercity services, the local and regional public transit services operated by the rural transit providers of Greater Minnesota offer the potential to provide rural feeder service to connect passengers to the intercity and commuter routes. Most of Minnesota is served by county-wide or urban transit systems. Many of the regional county-wide providers offer long routes, often on a subscription basis, which could be used to connect to the nearest intercity bus services.

For example, Arrowhead Transit currently provides coordinated public transportation service to seven counties in northeastern Minnesota. Arrowhead Transit runs a scheduled bus service from International Falls to Duluth on the second Friday of each month, given that at least five riders sign up for the trip. Though this service is meant as a day trip for International Falls residents to access shopping and services in Duluth, riders could potentially connect with the intercity bus services from Duluth to the Twin Cities. Arrowhead Transit could conceivably expand this feeder service, to allow access to Minneapolis-bound intercity bus services. Hibbing Area Transit, which also offers route deviation and demand-response services, is another candidate for providing feeder service to Duluth.

Another example of a potential rural feeder service would connect New Ulm to the intercity network to provide access to the Twin Cities. Watonwan County's Take Me There system operates demand-response service that could potentially provide feeder service from New Ulm to Mankato or Minneapolis. Another possible rural feeder service from New Ulm is the Brown County Heartland Express, which provides route deviation and demand-response service.

Austin-Mower County Area Transit (AMCAT) provides local service in Austin and could potentially operate feeder services to Albert Lea or Rochester, where passengers could connect to the intercity network. Albert Lea Transit is another local provider that could operate a feeder service between Austin and Albert Lea, while

Table 2-2: MSP Shuttles

Provider	Service Area	Intermediate Stops	Service Hours	Frequency	# Scheduled Trips	One-Way Fares	Reservation Required?
Chippewa Valley Airport Service	Eau Claire, WI to MSP	Hudson, Baldwin, and Menomonie, WI	3:15 a.m.-1:35 a.m. daily (last trip leaves Eau Claire at 5:45 p.m. and MSP at 11:45 p.m.)	1.5-2.5 hours	9 Roundtrips (RT)	$25-$32, $15 for children 12 years and under, discounted rates for groups of 3 or more	Yes, prepaid reservations (by major credit card) required to MSP, online, by phone, or locations in Eau Claire, Menomonie, Hudson, Baldwin; but trip originating in Minneapolis does not require a reservation. Reservations for groups of 3 or more must be made by phone.
Executive Express	Willmar, Morris, Alexandria, Wadena, Brainerd to MSP. Service to other out-state cities in central Minnesota can be made by special arrangements.	Albany, Albertville, Avon, Baxter, Bertha, Browerville, Camp Ripley, Clarissa, Clearwater, Cold Spring, College of St. Benedict, Cyrus, Eagle Bend, Glenwood, Hewitt, Litchfield, Little Falls, Long Prairie, Maple Grove, Melrose, Monticello, New London, Osakis, Paynesville, Plymouth, Rogers, Sauk Centre, Spicer, Starbuck, St. Cloud, St. John's Univ.	M-F 4:30 a.m.-11:30 p.m. Sat/Sun 4:30 a.m.-11:15 p.m. Holidays 7:00 a.m.-9:15 p.m. though hours vary by origin city	M-F 1.5-2.5 hours Sat/Sun 2-5 hours Holidays 2-3.5 hours	Up to: M-F 8 RT Sat/Sun 6 RT Holidays 4 RT	$22-$75 plus a fuel surcharge between $1-$3, special rates available for larger parties	Yes, online or by phone. Can confirm reservation with credit card, or company will call or email to confirm.
Go Carefree Shuttle	La Crosse, WI to MSP	Winona, Rochester; Wabasha, Lake City, Red Wing, Hastings only served once per day	M-Th 2:50 a.m.-1:30 a.m. Fri 2:50 a.m.-9:45 p.m. Sat 5:20 a.m.-9:45 p.m. Sun 5:20 a.m.-1:30 a.m.	Approximately 2-3 hours	M-F 6 RT Sat 4 RT Sun 5 RT	$25-$49, $20-$29 for children 12 years and under	Yes, by phone.
Land to Air Express, Inc.	Mankato to MSP	St. Peter and major motels along I-494 en route to MSP	M-F 6:30 a.m.- 9:00 p.m. (last trip leaves Mankato at 4:45 p.m. and MSP at 7:30 p.m.) Sat/Sun/Hol. 8:00 a.m.-8:30 p.m.	Approximately 1.5-3 hours	M-F 5 RT Sat/Sun/Hol. 3 RT	$27-$30	No, can buy tickets at locations in Mankato and St. Peter or through travel agents. For guaranteed seating, reservations required 24 hours in advance by phone.
Lakes Express	Baxter/Brainerd to MSP	Little Falls, St. Cloud, and Monticello; stops at St. Cloud State, St. Bens, St. Johns, Clearwater, Albertville, Maple Grove, and Rogers also available (though not scheduled)	1:45 a.m.-3:00 a.m. daily (last trip leaves Baxter at 8:45 p.m. and MSP at 11:59 p.m.)	2 hours (except for first trip from Baxter and last trip from MSP at 3 hour headway)	9 RT daily	$25-$45	Yes, at least 24 hours in advance by phone.
NWT Express	Northwestern WI to MSP	Almena, Barron, Cameron, Cumberland, Hayward, New Richmond, Rice Lake, Shell Lake, Spooner, Stone Lake, Trego, and Turtle Lake, WI	M, W, F, Sat 8:30 a.m-5:15 p.m. T, Th 6:30 a.m-5:15 p.m. Sun noon - 8:15 p.m.	One trip daily	Most cities have daily scheduled service; a few routes only run 2-5 days per week.	$50-72 (depending on city of origin), seniors $48-68, children 4-12 years pay half of adult fare, children 3 and under free; $6 fuel surcharge applies when gas is expensive	Yes, reservation must be made 48 hours in advance (or must pay $10 late booking fee) online, by email, or by phone; payment required prior to travel.

Table 2-2: MSP Shuttles

Provider	Service Area	Intermediate Stops	Service Hours	Frequency	# Scheduled Trips	One-Way Fares	Reservation Required?
Rice Lake Shuttle Service, Inc.	Rice Lake, WI to MSP	Cameron, Barron, Amery, Poskin, Almena, Turtle Lake, Clear Lake, Clayton, Richardson, 63/64/46 Intersection, WI	M-Sat 6:45 a.m.-6:20 p.m. (departs Rice Lake at 6:45 a.m. and 1:00 p.m., departs MSP at 9:25 a.m. and 4:00 p.m.)	Two trips daily, approximately 6-hour headway	2 RT	$51-55, children 12 and under $29-$31; discounts available for groups of 5-14	Yes, online or by phone.
GO Rochester Direct	Rochester to MSP	Pine Island, Zumbrota, and Cannon Falls (reservations required)	M-F 4:30 a.m.-12:00 a.m. Sat 4:30 a.m.-10:30 p.m. Sun 6:00 a.m.-12:00 a.m.	1-1.5 hours	M-F 14 RT Sat/Sun 13 RT	$29, senior (60+) $27, child (14 and under) $19	No, but reservations recommended at least 24 hours prior to travel; available online, by phone, or at office or airport counter. Reservations are requires for shuttle service to Pine Island, Zumbrota, and Cannon Falls. Website: http://www.gorochesterdirect.com
Skyline Shuttle	Duluth to MSP	Hinckley	5:30 a.m.-11:50 p.m.	2.5-3 hours	5 RT	$30 from Hinckley, $42 from Duluth; discounts for RT fare, same day travel RT, and multiple travelers RT	No, available online or by phone

Notes: Service hours indicate start of service to end time of last trip. In many cases, the last trip actually leaves the origin city several hours before the end time listed in the service hours.

Rochester City Lines could run a feeder service between Austin and Rochester. The size and capabilities of the local transit systems may influence their willingness to provide feeder services.

Hiawathaland Transit provides route deviation and demand-response service in Red Wing. This provider could potentially operate feeder service to Minneapolis via Hastings. Tri-Valley Heartland Express, a regional provider serving Polk, Red Lake, Norman, Marshall, and Pennington Counties (and Bagley in Clearwater County), operates some long routes that could be considered for rural feeder status, such as Thief River Falls to Grand Forks.

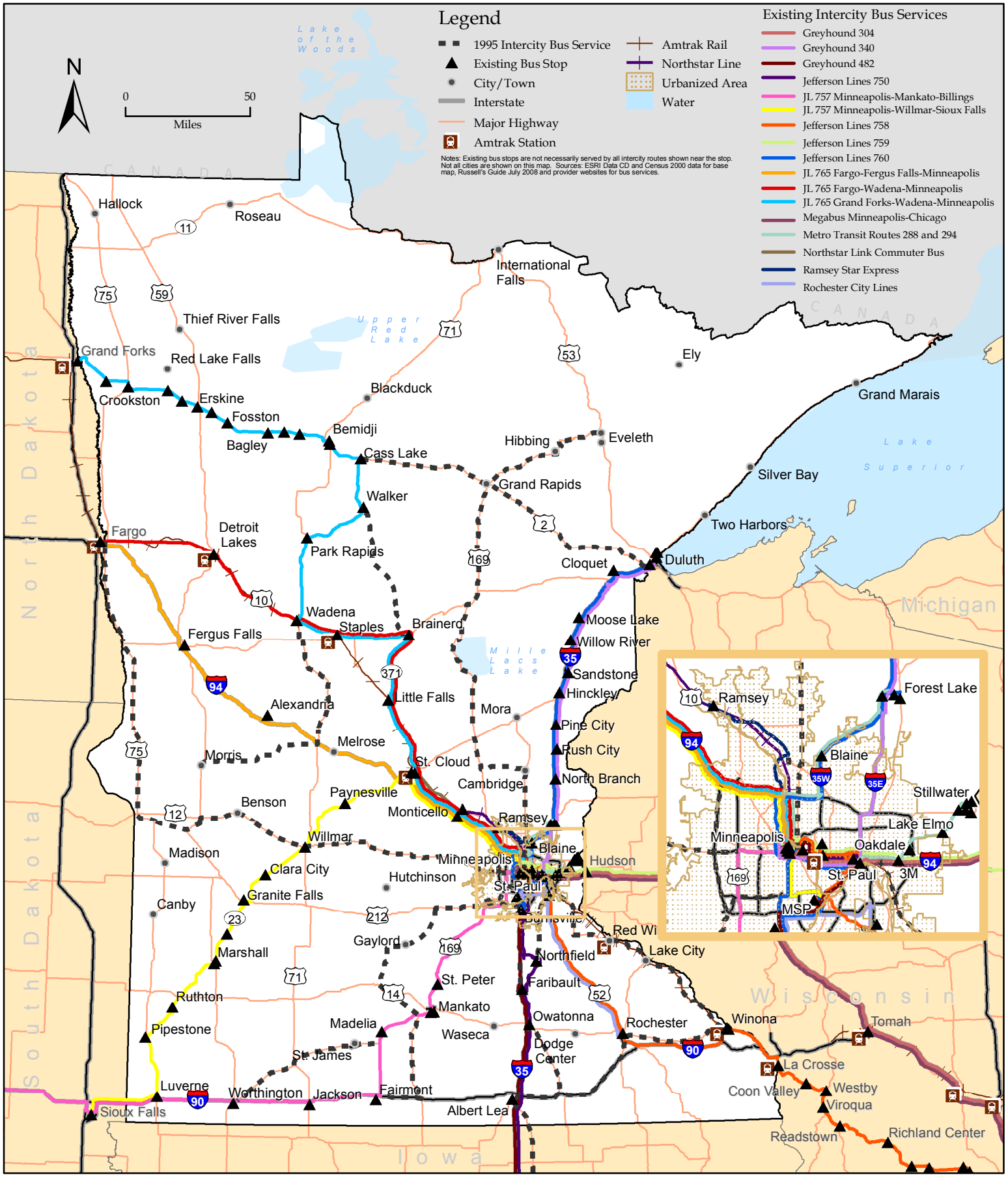
These examples have focused on the rural operators providing service in areas where there is a lack of intercity bus service, and the rural transit services could be modified to act as feeders. There are other rural services that could expand or be modified to provide links to the intercity bus network as rural feeders, and thereby increase the reach of the current intercity bus network.

CHANGES SINCE PREVIOUS PLAN

Figure 2-2 compares the current intercity bus network to the coverage provided by the service network in place in 1995. Note that the map only shows 1995 service that is no longer provided today; some current services were also provided in 1995. As seen in the map, past intercity bus coverage across the state was more extensive, including direct connections from the Twin Cities to Grand Rapids and Virginia, to Willmar and Benson, to Gaylord and Blue Earth, to Northfield and Austin, and to Hastings and Red Wing. Greater intrastate coverage was also provided with intercity bus services between Cass Lake and Duluth, Walker and Brainerd, and Wadena and Morris via Long Prairie and Sauk Centre.

In June of 2004, Greyhound announced that it would drop all of the services funded under Section 5311(f), as well as additional service that was unprofitable. In Minnesota, Greyhound dropped (as of August 2004) service to numerous, mostly rural towns: Anoka, Atwater, Bagley, Bemidji, Big Lake, Bloomington, Brainerd, Canyon, Cass Lake, Clara City, Cloquet, Cottonwood, Crookston, Dassel, Detroit Lakes, Erskine, Eveleth, Forest Lake, Fosston, Four Corners, Frazee, Granite Falls, Hackensack, Hamel, Hinckley, Hutchinson, Independence, Le Sueur, Litchfield, Little Falls, Luverne, Madelia, Mankato, Marshall, Melrose, Moose Lake, Mountain Lake, Nisswa, North Branch, Perham, Pine City, Pine River, Pipestone, Rochester, Ruthton, Sandstone, Sauk Centre, Shakopee, St. James, St. Louis Park, St. Peter, Twig, Wadena, Walker, Willmar, Windom, Winona, and Worthington.

Figure 2-2: Existing and Historical Intercity Bus Services



The potential loss of service generated calls to the state from users, the general public, and local officials, particularly in the Brainerd area, which is some distance from the I-94 corridor. Mn/DOT worked with Jefferson Lines to retain service on several routes. Subsequently 31 of these 58 points have retained service from Jefferson Lines, but 27 did not, and service has been lost completely in some areas of the state. The remaining Greyhound services operate on limited corridors, including service from Chicago to the Twin Cities, service from the Twin Cities to Tulsa and Dallas, and express service between the Twin Cities and Duluth.

An additional service loss followed in March 2007 when Lorenz Bus Service dropped its daily scheduled service from Virginia, Minnesota to the Twin Cities via Hibbing and Grand Rapids. Lorenz did not request S.5311(f) funding to maintain this service.

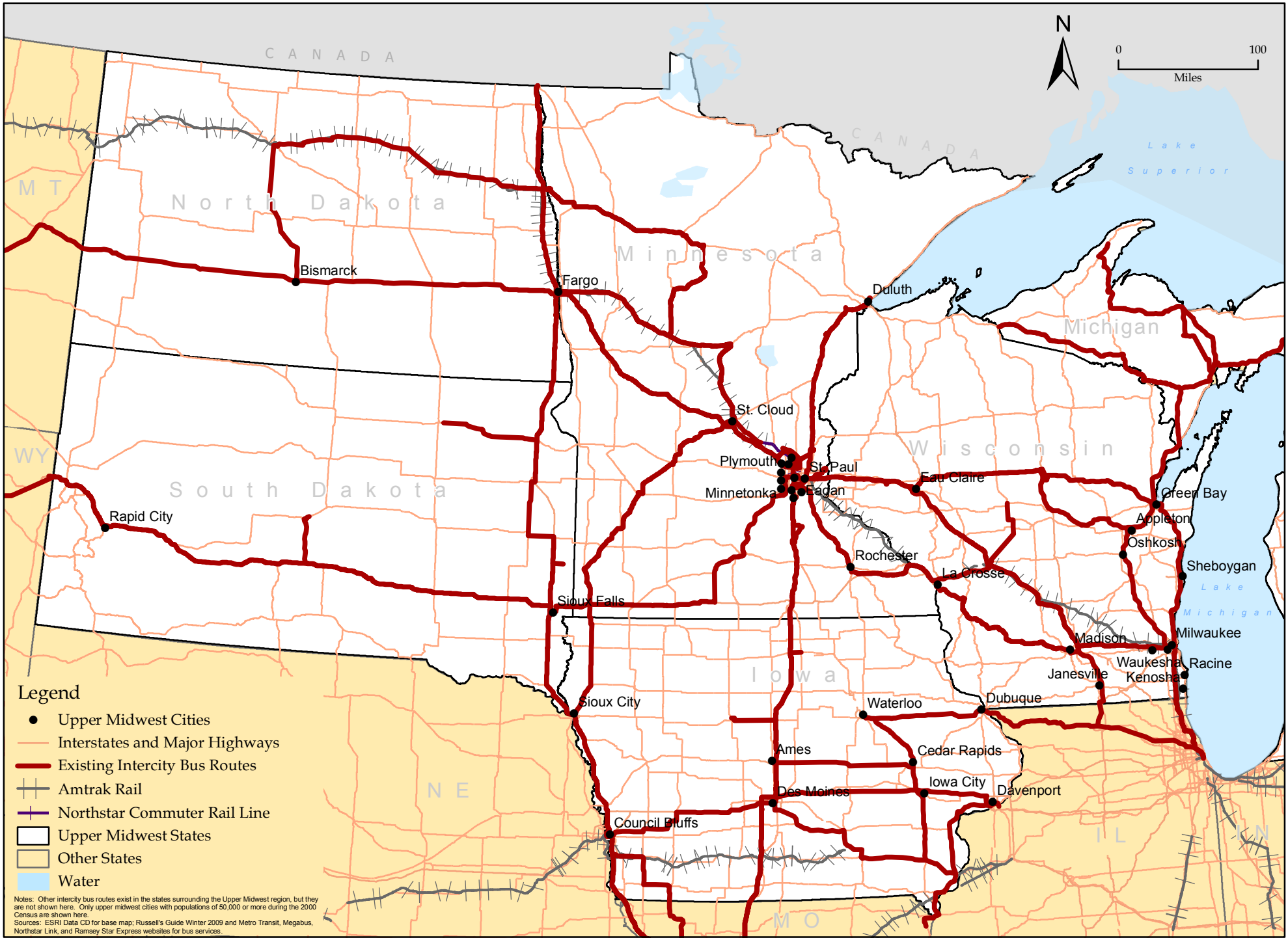
REGIONAL NETWORK

Figure 2-3 portrays the intercity bus services in Minnesota within the context of the broader intercity bus network that serves the Upper Midwest region. Numerous connections are available from the Twin Cities to other major cities within the region. Most parts of Greater Minnesota have intercity bus connections to the Twin Cities, which allow residents in these areas to travel throughout the Upper Midwest. However, portions of the state, particularly in the north, still lack connections to the regional intercity bus network.

SUMMARY

While various intercity bus services are provided within Minnesota, the statewide network has significantly shrunk over the past 14 years. Many rural towns in Greater Minnesota have lost direct connections to the intercity bus network, and today's services are mainly concentrated on major highways. Where Greyhound has followed a policy to drop services that are not profitable, Jefferson Lines continues to operate some services at a loss since these provide connections to services that are more profitable. Airport shuttle service from outlying areas to MSP Airport have been a growing trend in intercity transportation, though the fares are typically higher and preclude the use of these services for other trip purposes including medical and social trips. These factors have all contributed to a basic statewide network of traditional intercity bus service, with more specialized services including commuter bus and airport shuttles. The next chapter discusses the relationship between this network and areas of potential need for rural intercity bus connections.

Figure 2-3: Existing Intercity Bus Network in the Upper Midwest



Notes: Other intercity bus routes exist in the states surrounding the Upper Midwest region, but they are not shown here. Only upper midwest cities with populations of 50,000 or more during the 2000 Census are shown here.
Sources: ESRI Data CD for base map; Russell's Guide Winter 2009 and Metro Transit, Megabus, Northstar Link, and Ramsey Star Express websites for bus services.

Chapter 3

Population Characteristics and Needs for Intercity Bus Service

This chapter examines the question of whether the current (2010) intercity bus network meets potential public need for intercity connections. This needs assessment involved several approaches including analysis of demographic data and major trip generators, surveys of current users, review of needs documented in related plans, and analysis of historical services and estimated future demand. All these approaches helped determine if there are areas within the state that have a higher relative potential need for transportation service. These potential trip origin and destination areas can be considered for new or improved intercity bus services, described in the next chapter.

NATIONAL DATA ON INTERCITY BUS PASSENGER CHARACTERISTICS

Some data is available from the 2001 National Household Travel Survey (NHTS), conducted by the U.S. Department of Transportation's Bureau of Transportation Statistics (BTS). The survey's purpose was to collect information about the travel behavior of households generally, but it also included questions about the characteristics of long-distance trips, defined as trips over 50 miles in length to the furthest one-way destination. The survey included information on the trip itself, the modes used, and the characteristics of the traveler.

Table 3-1 presents a summary of some information from the NHTS, which indicates that persons using scheduled intercity bus trips (over 50 miles in length), when compared to users of other modes, are:

- more likely to be traveling for leisure or personal business,
- more likely to be female, and
- making longer trips than users of either the train or the personal vehicle, but shorter trips than commercial air trips.

Table 3-1: Comparison of Intercity Modal Trip Characteristics

	Intercity Bus	Train	Commercial Airplane	Personal Vehicle
Long-Distance Trip Length:				
Median (miles)	287	192	2,068	194
Long-Distance Trips by Mode and Sex:				
Female	55	42	43	42
Male	45	58	57	58
Trip Purpose:				
Commute	0.5	1.7	1.5	96.4
Business	0.8%	1.6%	17.8%	79.3%
Pleasure	2.2%	0.5%	6.7%	90.4%
Personal Business	5.6%	0.3%	4.7%	89.3%
Other	0.5%	0.0%	1.9%	96.6%

Source: Compiled by KFH Group from data in the U.S. Department of Transportation, Bureau of Transportation Statistics, 2001 National Household Travel Survey, preliminary long-distance trip file. All data for trips over 50 miles in length.

Earlier data from the 1995 American Travel Survey, which defined long-distance trips as 100 miles or more, found that bus users are more likely to be young adults or seniors, have lower incomes, and are more likely to lack alternative personal transportation.

This description of intercity bus rider characteristics is supported by the limited information Greyhound has presented from its annual market research survey. Greyhound's annual report to the Securities and Exchange Commission for 2004 (the last such report provided before the firm was merged into Laidlaw Transit) stated that their average customer travels to visit friends or relatives, has an annual income below $35,000, and may own an automobile that they think is reliable enough for the trip, but travel by bus because they are traveling on their own, and the cost of the bus trip is lower than driving alone.

It should be noted that the methodology used for Minnesota's Intercity Bus Network Study focused mainly on the likely ridership for "traditional" intercity bus services—persons with higher transportation need characteristics. These are also

persons likely to need local public transit. The analysis also examined overall population and population density, which include all population segments and not just those with need characteristics. However, this analysis did not fully address potential markets of persons that might be considered "choice" riders in transit planning terms—those who have a vehicle available, could drive or fly, and could choose to take transit or not. Quantifying potential demand from such markets is difficult, and the stakeholder outreach process was used as the primary means of collecting and analyzing information about choice markets.

DEMOGRAPHIC ANALYSIS

The current federal and state regulatory policies assign unsubsidized private firms the role of providing intercity bus service between urbanized areas, and therefore the most densely populated cities along the interstate highways generally receive this type of service without any state intervention or support. In Minnesota unsubsidized intercity bus service is primarily focused on the Twin Cities, and is the linkage to major cities outside the state. However, when considering the role of Mn/DOT in administering the S.5311(f) program of rural intercity bus assistance, it is important to determine places of potential need in Greater Minnesota, the 80 counties outside of the Twin Cities metro area.

Demographic and economic characteristics of the population are related to the need for public transportation services, including intercity bus service. More specifically, the need for intercity bus service depends upon the size and distribution of an area's population and on the composition of that population. The following analysis provides a review of relative transit needs in Minnesota in terms of those population segments that indicate a potential need for intercity bus transportation.

Population Profile

Potentially transit-dependent population segments are those segments of the population that, because of demographic characteristics such as age, income, or automobile availability, may require transit service to meet mobility needs (as an alternative to the private automobile). To analyze intercity bus needs five population segments were chosen for analysis, in part because of national data regarding intercity bus passenger characteristics presented above. These segments of the population are defined below using 2000 Census data from the Bureau of the Census:

1. Youth (persons age 18 to 24): Enlisted military personnel and college students typically fall into this age range; these persons often do not have access to an automobile and are stationed far from home.

2. Older Adults (persons age 60 and above): Advancing age can mean diminished ability or desire to drive (particularly on a long trip) and a need for access to medical facilities on a regular basis.

3. Persons living below the poverty level: Persons that typically do not have the economic means to own or operate a vehicle, or a vehicle perceived as capable of a long trip.

4. Persons with a disability (age 16 and above): Persons may be reliant on local accessible public transit services and would therefore also consider public transit options to make non-local trips.

5. Autoless households: Persons without access to a car must rely on alternative transportation services.

Methodology

Potential intercity bus needs were identified by comparing the locations served by the current network with the locations in Minnesota that have concentrations of persons more likely to need public transportation. In order to conduct this needs analysis, the data for the total population for each of the above five variables were compiled from the 2000 Census. The analysis was conducted at the Census Block Group level, at which the raw data was summarized for the targeted variables. The numbers of people in each category are not added together in each Block Group because the categories are not mutually exclusive. A person 65 years of age could also have an income below the poverty level and/or have no automobile available to them for personal use. Instead, each category was considered individually. Also, it should be noted that "autoless households" refer to occupied housing units and not persons.

The first step in doing this was using ArcView GIS to map the raw numbers of potentially transit-dependent persons per Block Group in each category throughout the state. It is important to remember that the number of persons with needs may be spread out over a large area, depending on the physical size of the Block Group, and the density of such persons then may not be substantial enough to warrant intercity bus service. However, as this study looks to expand service to rural areas within the state, it is helpful to get an idea of the number of potentially transit-dependent persons that reside in rural areas. This number combined with an analysis of population densities helped prioritize the more densely populated places for improved intercity bus services.

The second step of demographic needs analysis involved mapping the density and percentage of persons in the needs categories per Block Group. Within each needs category, every Block Group was ranked relative to the other Block Groups. Such

rankings were performed twice, once based on the density of the population within each category, and a second time based on the percentage of the population in that category. Individual rankings for each needs category were then summed by Block Group, resulting in two combined rankings that represented relative transportation need based on:

1. The density of potentially transit-dependent persons (in persons having the particular characteristic per square mile), and

2. The percentage of potentially transit-dependent persons.

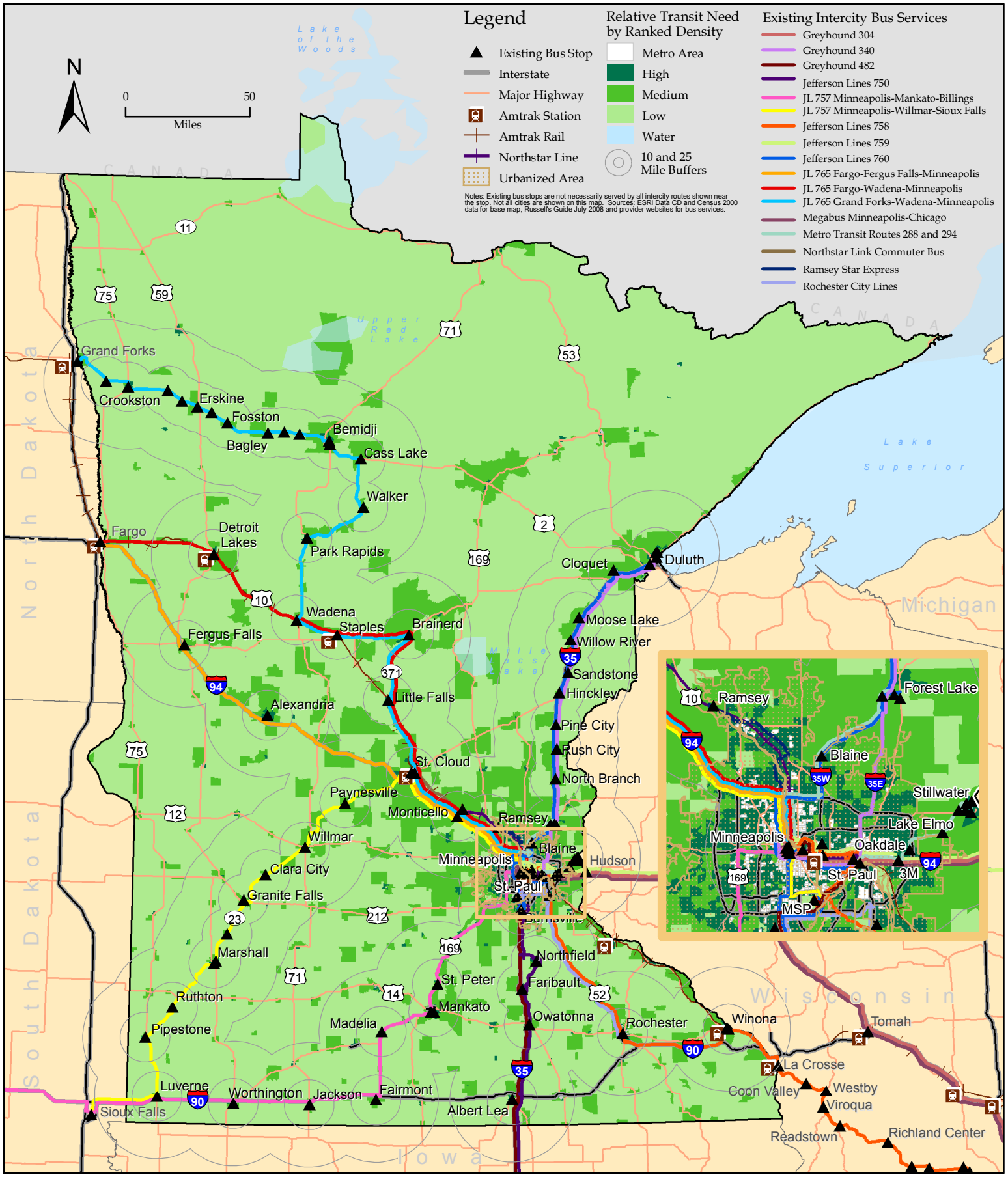
The overall rankings for density and percentage of transit-dependent persons were divided into natural breaks representing ranges of low, moderate, and high relative needs among the Block Groups. While the development of fixed-route transit service is often prioritized for areas that contain Block Groups with higher densities of potentially transit-dependent persons, it is also worth looking at the percentage of the population with transit-dependent characteristics. Substantial percentages of transit-dependent populations indicate that the Block Groups have a high proportion of people who may need transit, but these potential passengers may be spread out over relatively large areas and consequently do not have the density to support fixed-route service such as intercity bus. However, the transit need still exists and high percentages of transit-dependent populations may be good indicators for areas that need improved intercity bus services, especially because Minnesota aims to improve these services in rural areas, which have lower population densities to begin with.

The general population densities outside the metro areas were also mapped to compare with the map of ranked density of transit-dependent persons. For the most part, the general population density map confirmed that the towns with high ranked densities of transit-dependent persons also have high general densities by rural standards.

Density Ranking of Transit-Dependent Populations

Mapping the population density of each of the five variables by Block Group identified and uncovered concentrations of potentially transit-dependent persons**.** Figure 3-1 displays the map of Block Groups in Minnesota showing relative levels of need for public transportation based on the density of transit-dependent populations, with the intercity bus network superimposed, and a 10-mile and 25-mile market area radius around each existing intercity bus stop. Block groups were ranked based on high, medium, and low relative transit need. The Block Groups with High Relative Need based on ranked density that are outside the major metro areas tend to exist along major highways. Some of these areas are currently served by existing intercity bus service, while others are not.

Figure 3-1: Relative Transit Need by Ranked Density of Potentially Transit Dependent Persons



Determining the location of Block Groups with a high density of potential need provides a very fine grain assessment of the potential need in relation to the existing network. However, in reality, the market area of a bus stop would include the town where the high or moderate need Block Group is located and the surrounding area. As ridership is generally proportionate to the overall population served, an additional analysis step is presented in Tables 3-2 and 3-3. Table 3-2 presents a list of the rural towns that have at least one Block Group with a ranking of "High Relative Need" based on the transit dependency characteristics. The populations of these places from the 2000 Census and their distances from the existing intercity bus network were used to determine which towns might be the focus of efforts to expand rural intercity bus service coverage or provide rural transit linkage to the existing services. The criteria were as follows:

1. The overall population of the town is at least 2,500 persons, providing a concentration of potential riders. This is one possible standard for providing a stop on a fixed-route intercity service in rural areas—it is much lower than a threshold that might be used if the carrier is unsubsidized and the service must be supported completely by fare revenue.

2. The town is more than ten miles away from existing intercity bus service. (The reasoning behind these criteria is that people who live within 10 miles of existing service have reasonably good access to the service. The populations that live more than ten miles, and especially more than 25 miles, away are considered to have limited access to existing service. Therefore, the towns that are more than ten miles away and are not currently served by local transit, which could connect to intercity bus services, would be good candidates for efforts to expand intercity bus services or regional connections).

Based on Table 3-2, the following cities have Block Groups with high relative need based on ranked density and are more than 25 miles from the nearest intercity service:

- Appleton
- Benson
- Breckenridge
- Cokato
- Ely
- Eveleth
- Grand Rapids
- Hibbing
- Hutchinson
- International Falls

Table 3-2: Population Density Over 2,500 (with at Least One "High" Need Block Group)*

City/Town	2000 Census Population	Distance from Existing Routes (mi)
Austin	23,314	within 10-25 mi buffer
Hastings	18,204	within 10-25 mi buffer
Hibbing	17,071	> 25
Red Wing	16,116	> 25
New Ulm	13,594	within 10-25 mi buffer
Hutchinson	13,080	> 25
Buffalo	10,097	Just at the 10 mi buffer
Waseca	8,493	within 10-25 mi buffer
Thief River Falls	8,410	Just at the 25 mi buffer
Grand Rapids	7,764	> 25
East Grand Forks	7,501	within 10-25 mi buffer
Waconia	6,814	Just outside the 25 mi buffer
International Falls	6,703	> 25
Litchfield	6,562	within 10-25 mi buffer
Big Lake	6,063	< 10
Cambridge	5,520	within 10-25 mi buffer
Redwood Falls	5,459	> 25
Stewartville	5,411	within 10-25 mi buffer
Montevideo	5,346	within 10-25 mi buffer
Morris	5,068	> 25
Lake City	4,950	> 25
La Crescent	4,923	within 10-25 mi buffer
St. James	4,695	within 10-25 mi buffer
New Prague	4,559	within 10-25 mi buffer
Windom	4,490	within 10-25 mi buffer
Kasson	4,398	within 10-25 mi buffer
Princeton	3,933	within 10-25 mi buffer
Sauk Centre	3,930	within 10-25 mi buffer
Le Sueur	3,922	< 10
Eveleth	3,865	> 25
Delano	3,837	within 10-25 mi buffer
Jordan	3,833	within 10-25 mi buffer
Belle Plaine	3,789	within 10-25 mi buffer
Ely	3,724	> 25
Albertville	3,621	< 10
Blue Earth	3,621	within 10-25 mi buffer
Two Harbors	3,613	Just at the 25 mi buffer
Breckenridge	3,559	Just at the 25 mi buffer
Rockford	3,484	within 10-25 mi buffer
Benson	3,376	> 25
Mora	3,193	within 10-25 mi buffer
Melrose	3,091	within 10-25 mi buffer
Wyoming	3,048	< 10
Long Prairie	3,040	within 10-25 mi buffer

Table 3-2: Population Density Over 2,500 (with at Least One "High" Need Block Group)*

City/Town	2000 Census Population	Distance from Existing Routes (mi)
Watertown	3,029	within 10-25 mi buffer
Lindstrom	3,015	within 10-25 mi buffer
Appleton	2,871	> 25
Roseau	2,756	> 25
Cokato	2,727	Just at the 25 mi buffer
Chisago City	2,622	< 10
Wabasha	2,599	> 25
Glenwood	2,594	within 10-25 mi buffer
Perham	2,559	within 10-25 mi buffer
Wells**	2,494	within 10-25 mi buffer
Lake Crystal**	2,420	within 10-25 mi buffer

*Based on ranked density of population with needs characteristics.
*These cities have a Census 2000 population slightly under 2,500.

- Lake City
- Morris
- Red Wing
- Redwood Falls
- Roseau
- Thief River Falls
- Two Harbors
- Wabasha
- Waconia

The above places are better candidates for service expansion because they lie farther from the existing network and are therefore considered to have less access to intercity bus service. However, several cities may also be considered for service expansion because they have high need Block Groups, a population of at least 2,500, and lie more than 10 miles, but less than 25 miles from existing intercity service:

- Austin
- Belle Plaine
- Blue Earth
- Cambridge
- Delano
- East Grand Forks
- Glenwood
- Hastings
- Jordan
- Kasson
- La Crescent
- Lindstrom
- Litchfield
- Long Prairie
- Melrose
- Montevideo
- Mora
- New Prague
- New Ulm
- Perham
- Princeton
- Rockford
- Sauk Centre
- St. James
- Stewartville
- Waseca
- Watertown

- Wells (population 2,494)
- Windom

The locations of these cities are mapped in Figure 3-2 in relationship to the current intercity bus network. As can be seen, a number of the points without service are far from existing service in the north central region of the state, and along the western edge of the state just beyond the 25 mile threshold around the existing S.5311(f) route between St. Cloud and Sioux Falls. There is a much longer list of towns showing some level of need that are more than ten miles from a stop, but less than 25. However, persons in these towns are close enough that they may be able to obtain a ride to the intercity stop, or there is potentially local rural transit service which could provide this connection if the transit program was able and if all parties had sufficient knowledge (of schedules and stop locations) to make the connection useable. These towns could potentially be served by local feeder routes that connect them to the intercity bus network; further investigation will be needed to determine if such services are available, or if additional services could be developed to offer such trips.

It should be noted that only cities with Block Groups of high ranked density that have a population of at least 2,500 have been listed so far. Listed in Table 3-3, cities with high ranked density and smaller populations may be considered as additional stops for improved intercity bus service, especially if these cities lie along the potential routes. The following lists towns with a "High" ranking of the density of persons with a likely transit need and populations less than 2,500:

More than 25 miles from existing intercity bus service:

- Grand Marais
- Madison
- Ortonville
- Silver Bay
- Springfield

Between 10 and 25 miles away from existing service, under 2,500 persons:

- Albany
- Blooming Prairie
- Crosby
- Dodge Center
- Fertile
- Foley

Figure 3-2: Intercity Bus Stop Candidates Overlaid on Existing Bus Network and Ranked Density

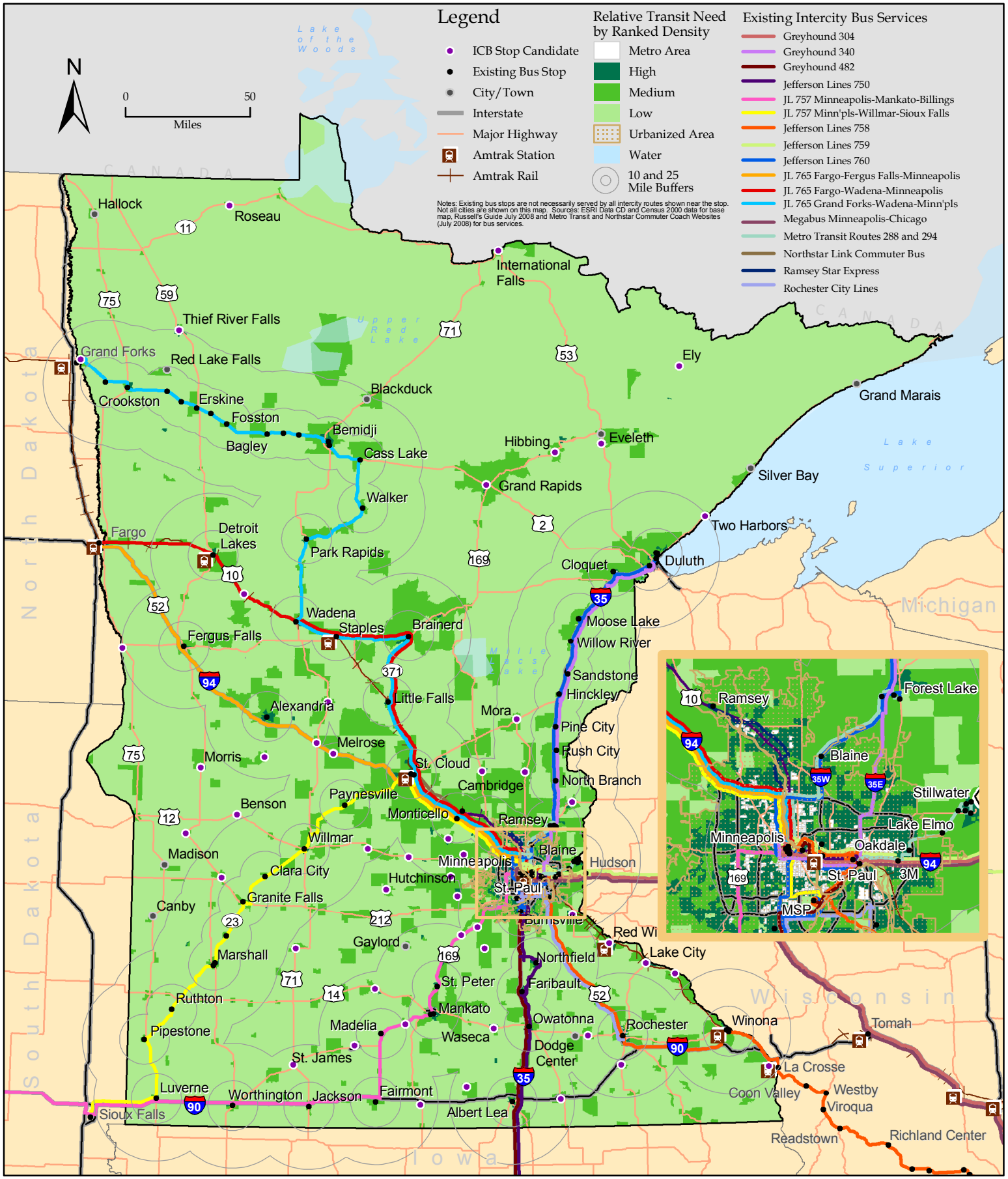


Table 3-3: Places under 2,500 with at Least One "High" Need Block Group*

City/Town	2000 Census Population	Distance from Existing Routes (mi)
Sacred Heart	549	Just at the 10 Mile Buffer
Fertile	893	within 10-25 mi buffer
New Richland	1,197	within 10-25 mi buffer
Mahnomen	1,202	within 10-25 mi buffer
Grand Marais	1,353	> 25
Minneota	1,449	within 10-25 mi buffer
Osakis	1,567	within 10-25 mi buffer
Maple Lake	1,633	within 10-25 mi buffer
Madison	1,768	> 25
Albany	1,796	within 10-25 mi buffer
Howard Lake	1,853	within 10-25 mi buffer
Canby	1,903	> 25
Lakeland	1,917	< 10
Blooming Prairie	1,933	within 10-25 mi buffer
Arlington	2,048	within 10-25 mi buffer
Silver Bay	2,068	> 25
Mountain Lake	2,082	within 10-25 mi buffer
Foley	2,154	within 10-25 mi buffer
Ortonville	2,158	> 25
Springfield	2,215	> 25
Dodge Center	2,226	within 10-25 mi buffer
Tracy	2,268	within 10-25 mi buffer
Gaylord	2,279	within 10-25 mi buffer
Crosby	2,299	within 10-25 mi buffer

*Based on ranked density of population with needs characteristics.

- Gaylord
- Howard Lake
- Mahnomen
- Maple Lake
- Minneota
- Mountain Lake
- Osakis
- Tracy

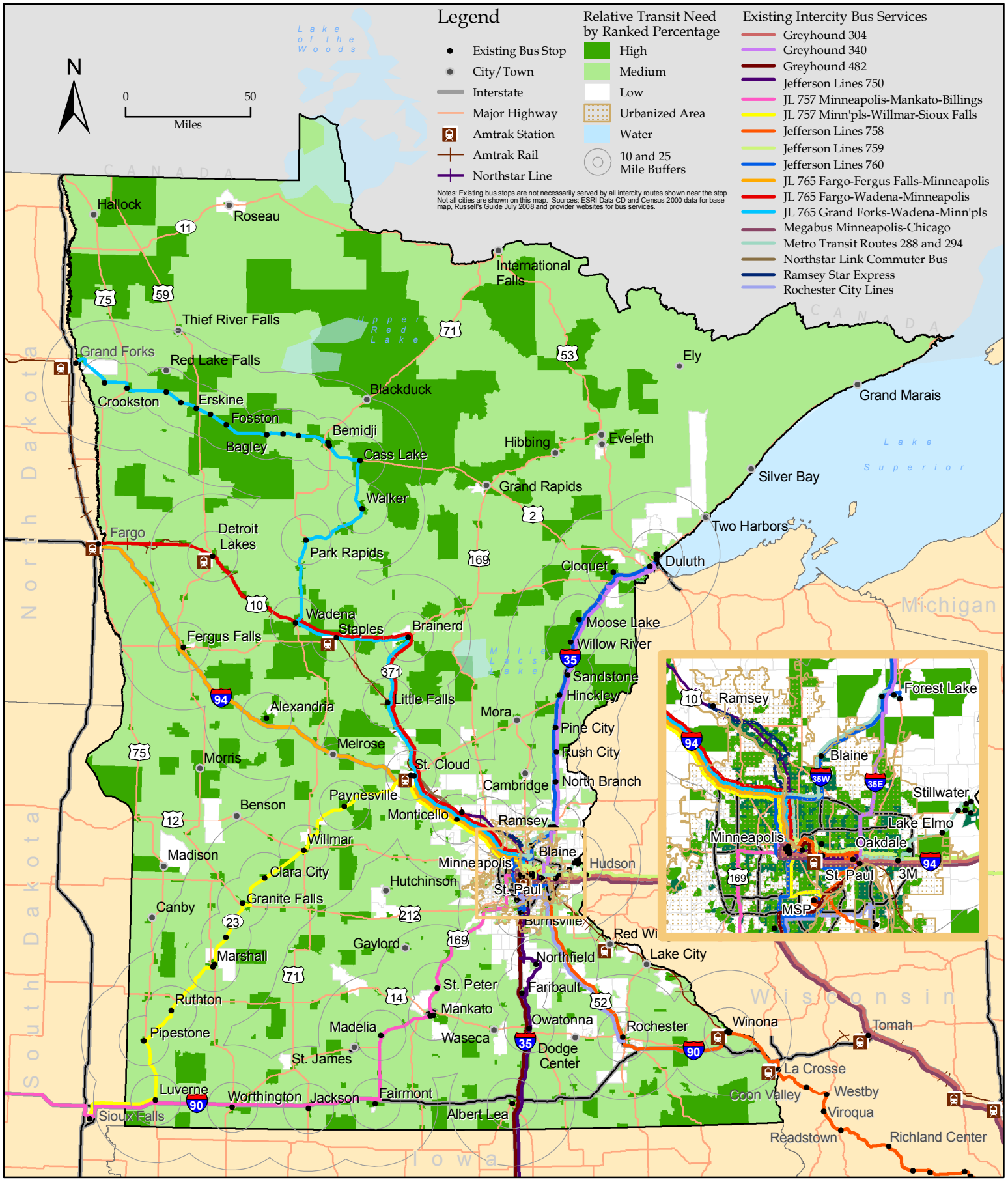
These points are potentially served by local transit connections to the nearest intercity service point, or they could be considered as stops on intercity services passing through—but in general they are too close to existing service with a population that is too small to warrant the design of dedicated rural intercity services.

Percentage Ranking of Transit-Dependent Populations

The percentage of potentially transit-dependent persons for each of the five variables by Block Group was also mapped to examine relative levels of need for public transportation. As with the density ranking, the five variables were ranked separately based on the percentage of potentially transit-dependent persons and then summed to create an overall percentage ranking. Figure 3-3 shows the relative level of need among the Block Groups based on the percentage of the population that fell into the categories of need, with the intercity bus network superimposed. Block Groups with a high or moderate percentage-based need are found in the central areas of the larger population cities, but also in the most rural areas of the state. This includes large unserved areas in the north central portion of the state, the far north, the southeast corner, the southwest along the state line, and the corridor between the US 169 and Route 23 corridors in the southwest. This reflects the general need for some level of public transportation service, because a significant percentage of the population has high relative transit need. These populations could be seen to need intercity or regional connections as well as local transit service. The question is whether or not there is sufficient population to sustain such service. The population numbers are lower in these areas; however, it is likely that maintaining a low frequency connection or providing a local transit connection to existing intercity bus service would be the only feasible means of addressing these needs.

This finding reflects the fact that many of the identified Minnesota municipalities have an age distribution that is heavily skewed towards older adults and/or persons who are more likely to need public transit for some or all of their trips. When considering the older adults, in many cases this population group feels comfortable driving locally during daylight hours, but not at night or out of town. In that sense, the potential demand for intercity or regional connections may involve a broader

Figure 3-3: Relative Transit Need by Ranked Percentage of Potentially Transit Dependent Persons



population than purely local services, though the demand (in terms of numbers of trips) will be lower because the frequency with which one needs to travel out of town is much lower than purely local trips (i.e., shopping or medical).

The areas with the highest percentage of transit-dependent population are in some cases similar to those identified previously when considering the density of population with transit needs.

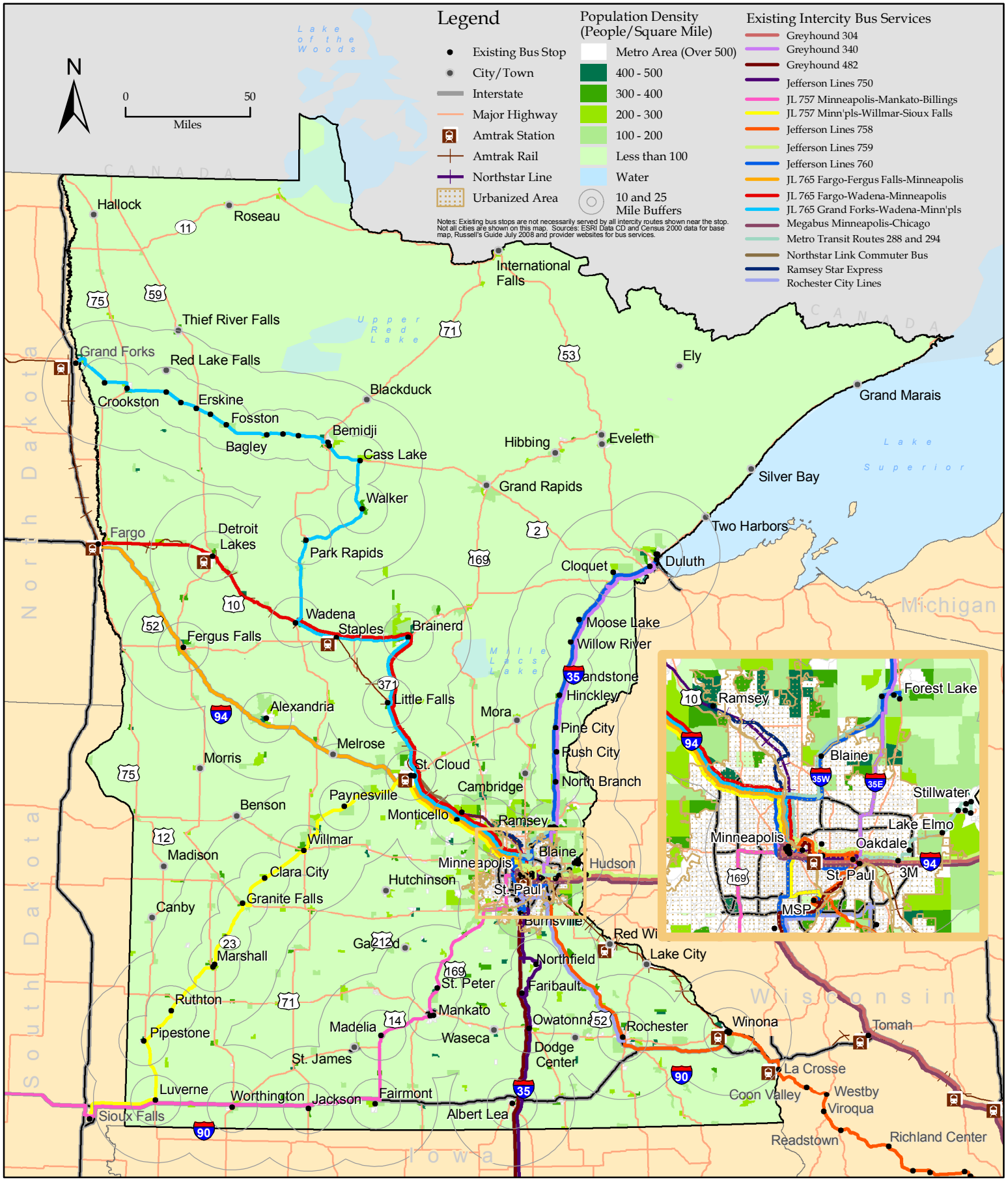
Overall Population Density

The final component of the population profile analysis is the overall distribution of population in the state, particularly in terms of population density**.** Figure 3-4 illustrates the **overall population density** of each Block Group in relationship to the existing intercity network and current stops. On this map the areas over 500 persons per square mile, which are known to be high density, have been shaded in white to try and avoid the obvious and allow some look at the places with in-between densities.

As previously noted, the density and percentage rankings of potentially transit-dependent persons should be looked at in conjunction with the overall population and population density to identify potential demand. Although it may not be possible to identify specific concentrations of population by looking at the statewide population characteristics within each Block Group, as seen in Figure 3-4, it is evident that the majority of the population in the state is located in the Twin Cities area, and along the primary interstate road networks (I-94, I –35, I-90, US 169, US 52, US 10, and Route 371). The concentration of areas of even moderate population density in the metropolitan area of the Twin Cities is very apparent in this map. Aside from current bus stops, some towns have been labeled on the map because they have one or more Block Groups that are high or moderate in population density, but have no current intercity services within ten miles.

Population density increases the likelihood that intercity bus alternatives may be feasible, but density alone may not provide enough people to provide a sufficient market. The overall size of the potential market area population is also important in identifying areas that potentially should have intercity bus service. Unsubsidized intercity bus service continues to be feasible in municipalities that have substantial population, though it should be noted that in its recent route restructuring Greyhound has generally reduced or eliminated service to points with populations under 50,000, focusing on city-to-city services with fewer intermediate stops and greater frequency—suggesting that it is now more difficult for the private sector to serve rural points without significant operating assistance. In Minnesota the primary carrier, Jefferson Lines, has worked with the state to utilize available programs to maintain a basic level of intercity bus service to many of the smaller cities, even as the Greyhound network in the state has contracted.

Figure 3-4: Population Density



The points identified through this analysis need to be assessed in terms of the overall population at each location, the possibility of serving it on a route between larger points, and whether or not a local or regional transit connection to the nearest intercity service point might be available or appropriate for development. It would seem that a priority for addressing unmet needs might focus on the highest population unserved towns with limited access (more than 25 miles from existing service); these towns have the highest ridership potential. Hibbing (with Grand Rapids and Eveleth—combined population 28,700), Hutchinson (13,080), and Red Wing (with Lake City a combined population of 21,066) are examples of such higher priority places.

Results

It is important to recognize that this methodology produced relative rankings of the state's Block Groups, which indicated areas of need to focus improvements to intercity bus service, but may not translate directly into demand (ridership). The map of transit need by ranked density of transit-dependent persons is typically more useful in identifying locations with higher relative concentrations of potential riders, and is thereby more indicative of potential demand. The map of transit need by ranked percentage is more useful in identifying areas with high relative needs. Typically, rural areas and city centers have higher percentages of the population that are older adults, low income, or reside in households without autos. However, rural areas with these characteristics may not have the density of demand to support intercity bus service without subsidy, or even with subsidy. Such areas may be candidates for rural feeder services, particularly as part of local rural transit options.

DESTINATIONS/FACILITIES

The analysis of demographic data addressed the potential origin areas for intercity trips, but another consideration in terms of both potential market and policy is whether or not the current routes serve the places that are likely to be attractors of intercity bus ridership, or that could potentially have a need for such service. These include colleges and universities, major military bases, hospitals, and major medical facilities, correctional facilities, and major intermodal connections at airports and rail stations. Each of these potential destinations was addressed by identifying facilities of each type in Minnesota, and then determining whether they are potentially served by the existing network.

Colleges and Universities

A major segment of the intercity bus market is the youth population, persons 18-24 years old. To some extent the ability of college students to use intercity bus services to make trips to and from home is a function of the location of their homes and the

degree to which bus service comes close to home. To determine if the existing intercity bus network could serve this market, we have identified and mapped the locations of all two-year colleges and technical schools; four-year colleges and universities; and independent schools in Minnesota and compared this to the locations of the points served by the intercity bus network**.** Table 3-4 lists all the colleges and universities, and their locations. Figure 3-5 presents the location of these facilities in relation to the existing intercity bus network and the 10-mile and 25-mile service areas.

Most of these educational facilities are within ten miles of the nearest intercity service point. Several are located more than ten miles from intercity service, but less than 25 miles. These include:

- Crown College in Saint Bonifacius (enrollment 1.300)
- Globe University/Minnesota School of Business in Plymouth (no enrollment data)
- Globe University/Minnesota School of Business in Shakopee (no enrollment data)
- Martin Luther College in New Ulm (enrollment 717)
- Riverland Community College Austin Campus in Austin (enrollment 3,665)
- Saint John's University in Collegeville, (enrollment 4,000) and
- White Earth Tribal and Community College in Mahnomen (enrollment 99)

A number of educational facilities are more than 25 miles from the nearest intercity service point. These include:

- Cosmetology Careers Unlimited in Hibbing (enrollment 40)
- Hibbing Community College (enrollment 1,650)
- Itasca Community College in Grand Rapids (enrollment 1,197)
- Mesabi Range Community and Technical College in Virginia (enrollment 1,645)
- Minnesota West Community and Technical College in Canby (enrollment 3,281)
- Northland Community and Technical College in Thief River Falls (enrollment 4,123)
- Rainy River Community College in International Falls (enrollment 318)
- University of Minnesota-Morris (enrollment 1,700), and
- Vermillion Community College in Ely (enrollment 698)

Many of these facilities are technical schools or community colleges that draw their attendance from students who live in the region, as they do not have residential programs. The transportation needs of students at these schools are likely to be met by personal vehicles, and by local regional or rural transit to the extent that transit is

Table 3-4: Trip Generators for College/Vocational Schools

Name	Address	City	< 10 miles	10-25 miles	> 25 miles
Alexandria Technical College	1601 Jefferson St.	Alexandria	x		
Academy College	1101 E. 78th St.	Minneapolis	x		
Adler Graduate School	1550 E. 78th St.	Richfield	x		
American Academy of Acupuncture and Oriental Medicine	1925 County Rd. B2 W.	Roseville	x		
American Indian Opportunities Industrialization Center (OIC)	1845 E. Franklin Ave.	Minneapolis	x		
Anoka Technical College	1355 West Highway 10	Anoka	x		
Anoka-Ramsey Community College	11200 Mississippi Blvd.	Coon Rapids	x		
Apostolic Bible Institute	6944 Hudson Blvd. N.	St. Paul	x		
Argosy University, Twin Cities	1515 Central Pkwy.	Eagan	x		
Augsburg College	2211 Riverside Ave.	Minneapolis	x		
Aveda Institute Minneapolis	400 Central Ave. S.E.	Minneapolis	x		
Bemidji State University	1500 Birchmont Dr. N.E.	Bemidji	x		
Bethany College of Missions	6820 Auto Club Rd.	Bloomington	x		
Bethany Lutheran College	700 Luther Dr.	Mankato	x		
Bethel University	3900 Bethel Dr.	St. Paul	x		
Brown College	1440 Northland Dr.	Mendota Heights	x		
Capella University	225 S. 6th St.	Minneapolis	x		
Cardinal Stritch University	3300 Edinborough Way	Edina	x		
Carleton College	100 S. College St.	Northfield	x		
Central Lakes College	501 W. College Dr.	Brainerd	x		
Century College	3300 Century Ave N.	White Bear Lake	x		
College of Saint Benedict	37 S. College Ave.	St. Joseph	x		
College of St. Catherine - Minneapolis Campus	601 25th Ave. S.	Minneapolis	x		
College of St. Catherine - St. Paul Campus	2004 Randolph Ave.	St. Paul	x		
College of Visual Arts	344 Summit Ave.	St. Paul	x		
Concordia College	901 8th St. S.	Moorhead	x		
Concordia University	275 Syndicate St. N.	St. Paul	x		
Cosmetology Careers Unlimited - Duluth	121 W. Superior St.	Duluth	x		
Cosmetology Careers Unlimited - Hibbing	110 E. Howard St.	Hibbing			x
Crossroads College	920 Mayowood Rd. S.W.	Rochester	x		
Crown College	8700 College View Dr.	Saint Bonifacius		x	
Dakota County Technical College	1300 145th St. E.	Rosemount	x		
DeVry University - Edina Center	7700 France Ave. S.	Edina	x		
DeVry University - St. Louis Park Center	400 Hwy. 169 S.	St. Louis Park	x		
Dunwoody College of Technology	818 Dunwoody Blvd.	Minneapolis	x		
East Metro Opportunities Industrialization Center	1919 University Ave.	St. Paul	x		
Everest Institute - Eagan	1000 Blue Gentian Rd.	Eagan	x		
Fond Du Lac Tribal & Community College	2101 14th St.	Cloquet	x		
Globe University/MN School of Business-Blaine	3680 Pheasant Ridge Dr. N.E.	Blaine	x		

Table 3-4: Trip Generators for College/Vocational Schools

Name	Address	City	< 10 miles	10-25 miles	> 25 miles
Globe University/MN School of Business-Brooklyn Center	5910 Shingle Creek Pky.	Brooklyn Park	x		
Globe University/MN School of Business-Minneapolis	80 S. 8th St.	Minneapolis	x		
Globe University/MN School of Business-Moorhead	2777 34th St. S.	Moorhead	x		
Globe University/MN School of Business-Plymouth	1455 County Rd. 101 N.	Plymouth		x	
Globe University/MN School of Business-Richfield	1401 W. 76th St.	Richfield	x		
Globe University/MN School of Business-Rochester	2521 Pennington Dr. N.W.	Rochester	x		
Globe University/MN School of Business-Shakopee	1200 Shakopee Town Square	Shakopee		x	
Globe University/MN School of Business-St. Cloud	1201 2nd St. S.	Waite Park	x		
Globe University/MN School of Business-Woodbury	8089 Globe Dr.	Woodbury	x		
Gustavus Adolphus College	800 W. College Ave.	St. Peter	x		
Hamline University	1536 Hewitt Ave.	St. Paul	x		
Hennepin Technical College	9000 Brooklyn Blvd.	Brooklyn Park	x		
Herzing College - Minneapolis Campus	5700 W. Broadway	Minneapolis	x		
Hibbing Community College	1515 E. 25th St.	Hibbing			x
High Tech Institute - Minneapolis	5100 Gamble Dr.	St. Louis Park	x		
Inver Hills Community College	2500 E. 80th St.	Inver Grove Heights	x		
Itasca Community College	1851 E. Highway 169	Grand Rapids			x
ITT Technical Institute - Eden Prairie	8911 Columbine Rd.	Eden Prairie	x		
Lake Superior College	2101 Trinity Rd.	Duluth	x		
Le Cordon Bleu College of Culinary Arts	1315 Mendota Heights Rd.	Mendota Heights	x		
Leech Lake Tribal College	6945 Little Wolf Rd. N.W.	Cass Lake	x		
Luther Seminary	2481 Como Ave.	St. Paul	x		
Macalester College	1600 Grand Ave.	St. Paul	x		
Martin Luther College	1995 Luther Ct.	New Ulm		x	
Mayo Clinic College of Medicine	200 First St. S.W.	Rochester	x		
McNally Smith College of Music	19 Exchange St. E.	St. Paul	x		
Mesabi Range Community & Technical College	1001 Chestnut St. W.	Virginia			x
Metropolitan State University	700 Seventh St. E.	St. Paul	x		
Miami Ad School Minneapolis	25 N. 4th St.	Minneapolis	x		
Minneapolis Business College	1711 W. County Rd. B	Minneapolis	x		
Minneapolis College of Art and Design	2501 Stevens Ave.	Minneapolis	x		
Minneapolis Community & Technical College	1501 Hennepin Ave.	Minneapolis	x		
Minnesota School of Cosmetology	1750 Weir Dr.	Woodbury	x		
Minnesota State College - Southeast Technical	1250 Homer Rd.	Winona	x		
Minnesota State University - Mankato	228 Wiecking Ctr.	Mankato	x		
Minnesota State University Moorhead	1104 7th Ave. S.	Moorhead	x		
MN State Community & Technical College - Detroit Lakes	900 Hwy. 34 E.	Detroit Lakes	x		
MN State Community & Technical College - Fergus Falls	1414 College Way	Fergus Falls	x		

Table 3-4: Trip Generators for College/Vocational Schools

Name	Address	City	< 10 miles	10-25 miles	> 25 miles
MN State Community & Technical College - Moorhead	1900 28th Ave. S.	Moorhead	x		
MN State Community & Technical College - Wadena	405 Colfax Ave S.W.	Wadena	x		
MN West Community & Technical College - Canby	1011 First St. W.	Canby			x
MN West Community & Technical College - Granite Falls	1593 11th Ave.	Granite Falls	x		
MN West Community & Technical College - Jackson	401 West St.	Jackson	x		
MN West Community & Technical College - Pipestone	1314 N. Hiawatha Ave.	Pipestone	x		
MN West Community & Technical College - Worthington	1450 College Way	Worthington	x		
National American University - Bloomington	7801 Metro Pky.	Bloomington	x		
National American University - Brooklyn Center	6120 Earle Brown Dr.	Brooklyn Center	x		
National American University - Roseville	1550 Hwy. 36 W.	Roseville	x		
Normandale Community College	9700 France Ave. S.	Bloomington	x		
North Central University	910 Elliot Ave.	Minneapolis	x		
North Hennepin Community College	7411 85th Ave. N.	Brooklyn Park	x		
Northland Community & Technical College	1101 Highway 1 E.	Thief River Falls			x
Northwest Technical College	905 Grant Ave S.E.	Bemidji	x		
Northwest Technical Institute	950 Blue Gentian Rd.	Eagan	x		
Northwestern College	3003 Snelling Ave. N.	St. Paul	x		
Northwestern Health Sciences University	2501 W. 84th St.	Bloomington	x		
Oak Hills Christian College	1600 Oak Hills Rd. S.W.	Bemidji	x		
Pillsbury Baptist Bible College	315 S. Grove Ave.	Owatonna	x		
Pine Technical College	900 Fourth St. S.E.	Pine City	x		
Rainy River Community College	1501 Highway 71	International Falls			x
Rasmussen College - Brooklyn Park	8301 93rd Ave. N.	Brooklyn Park	x		
Rasmussen College - Eagan	3500 Federal Dr.	Eagan	x		
Rasmussen College - Eden Prairie	7905 Golden Triangle Dr.	Eden Prairie	x		
Rasmussen College - Lake Elmo/Woodbury	8565 Eagle Point Circle	Lake Elmo	x		
Rasmussen College - Mankato	130 Saint Andrews Dr.	Mankato	x		
Rasmussen College - Moorhead	1250 29th Ave. S.	Moorhead	x		
Rasmussen College - St. Cloud	226 Park Ave. S.	St. Cloud	x		
Ridgewater College	2101 15th Ave. N.W.	Willmar	x		
Riverland Community College - Albert Lea Campus	2200 Riverland Dr.	Albert Lea	x		
Riverland Community College - Austin Campus	1900 Eighth Ave. N.W.	Austin		x	
Riverland Community College - Owatonna College & Univ. Ctr.	965 Alexander Dr. S.W.	Owatonna	x		
Rochester Community & Technical College	851 30th Ave. S.E.	Rochester	x		
Saint John Vianney College Seminary	2115 Summit Ave.	St. Paul	x		
Saint John's University	13800 Fruit Farm Rd.	Collegeville		x	
Saint Mary's Univ. of MN - Rochester Center	1926 College View Rd.	Rochester	x		
Saint Mary's Univ. of MN - Twin Cities Campus	2500 Park Ave.	Minneapolis	x		

Table 3-4: Trip Generators for College/Vocational Schools

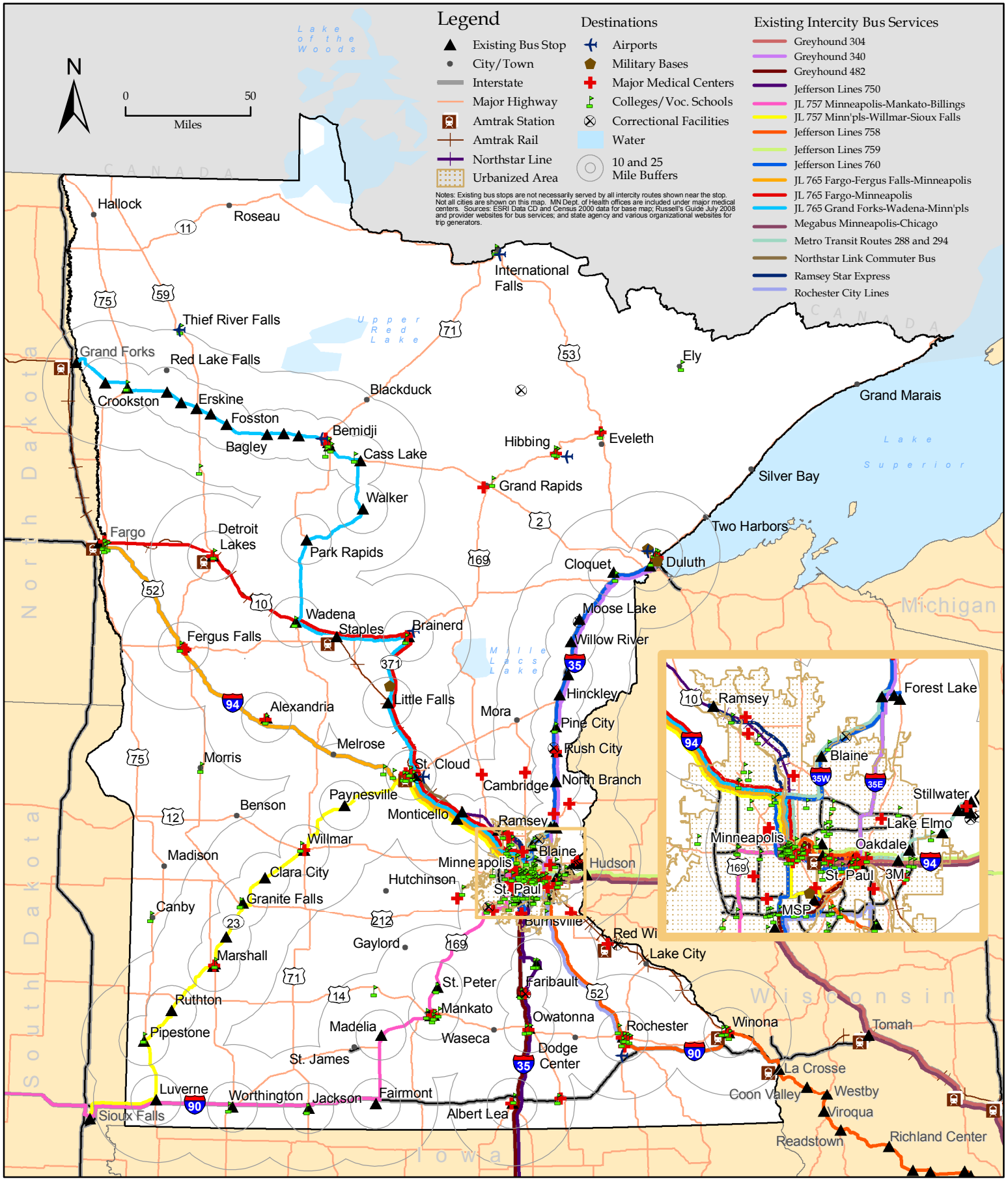
Name	Address	City	< 10 miles	10-25 miles	> 25 miles
Saint Mary's Univ. of MN - Winona Campus	700 Terrace Heights	Winona	x		
Saint Paul College	235 Marshall Ave.	St. Paul	x		
South Central College - Faribault Campus	1225 Third St. S.W.	Faribault	x		
South Central College - North Mankato Campus	1920 Lee Blvd.	North Mankato	x		
Southwest Minnesota State University	1501 State St.	Marshall	x		
St. Cloud State University	720 Fourth Ave. S.	St. Cloud	x		
St. Cloud Technical College	1540 Northway Dr.	St. Cloud	x		
St. Olaf College	1520 St. Olaf Ave.	Northfield	x		
Summit Academy Opportunities Industrialization Center	935 Olson Memorial Hwy.	Minneapolis	x		
TechSkills	3601 Minnesota Dr.	Bloomington	x		
The Art Institutes International Minnesota	15 S. 9th St.	Minneapolis	x		
The College of St. Scholastica	1200 Kenwood Ave.	Duluth	x		
United Theological Seminary of the Twin Cities	3000 Fifth St. N.W.	New Brighton	x		
University of Minnesota - Crookston	2900 University Ave.	Crookston	x		
University of Minnesota - Duluth	1049 University Dr.	Duluth	x		
University of Minnesota - Morris	600 E. 4th St.	Morris			x
University of Minnesota - Rochester	111 S. Broadway	Rochester	x		
University of Minnesota - Twin Cities	100 Church St. S.E.	Minneapolis	x		
University of Phoenix - Minneapolis/St. Paul	435 Ford Rd.	St. Louis Park	x		
University of St. Thomas - Minneapolis Campus	1000 LaSalle Ave.	Minneapolis	x		
University of St. Thomas - St. Paul Campus	2115 Summit Ave.	St. Paul	x		
Vermilion Community College	1900 E. Camp St.	Ely			x
Walden University	155 5th Ave. S.	Minneapolis	x		
White Earth Tribal & Community College	202 S. Main St.	Mahnomen		x	
William Mitchell College of Law	875 Summit Ave.	St. Paul	x		
Winona State University	175 W. Mark St.	Winona	x		

Note:
Colleges/Voc. Schools include public and private colleges, universities, and vocational schools.

Source:

Colleges/Voc. Schools: MN State Colleges and Universities Website, http://www.mnscu.edu/campuses/bycity.html. The MN Private College Council, Fund and Research Foundation Website, http://www.mnprivatecolleges.org/. 50states.com Website, http://www.50st

Figure 3-5: Destinations Overlaid on the Existing Intercity Bus Network



needed, rather than intercity services. One significant exception is the University of Minnesota Morris, a public liberal arts college of 1,700 students which is located 48 miles from the nearest intercity bus stop in Alexandria, and over two hours by car from the nearest commercial airport. The school website notes the availability of intercity bus service at Alexandria and Willmar, but states that a student using the bus has to make their own arrangements to reach the campus—potentially some form of local carrier would be the best way to make this connection. Another residential school located some distance from intercity bus service is Martin Luther College in New Ulm, which has 717 students. However, New Ulm is in close proximity to bus service in Mankato, which connects that area with the Twin Cities.

Military Bases

Table 3-5 lists all the major military bases are located in Minnesota with most situated in the areas around Minneapolis and Duluth, as can also be seen by referring to Figure 3-5. Military bases often generate a need for intercity bus service as many military personnel may not have a private vehicle available while they are on base. In addition, many bases have housing, and many military families do not have multiple vehicles available. In addition, military personnel are assigned without regard to family proximity, and they are likely to have family or friends in distant locations. Intercity bus service is accessible within ten miles of all of these bases.

Table 3-5: Trip Generators for Military Bases

Type	Name	Address	City	< 10 miles
Military Base	Camp Ripley Military Reservation	15000 Hwy. 115	Little Falls	x
Military Base	Coast Guard-Marine Safety Unit Duluth	600 S. Lake Ave.	Duluth	x
Military Base	Duluth Air National Guard Base	Ridgeview Rd.	Duluth	x
Military Base	Minneapolis-St Paul Air Reserve Station	3500 Military Highway	Minneapolis	x

Sources:

Military Bases: MN National Guard Website, http://www.minnesotanationalguard.org/ Minneapolis St. Paul Air Reserve Station Website, http://www.minneapolis.afrc.af.mil/units. About.com Website, http://usmilitary.about.com/gi/dynamic/offsite.htm?site=http://www.uscg.mil/d9/msoduluth/. globalSecurity.org Website, http://www.globalsecurity.org/military/facility/duluth.htm.

Hospitals

Although medical trips make up a small percentage of intercity bus trips, the ability to make trips from rural areas and small towns to major medical facilities is often a policy consideration for maintaining bus services. It may be less of a consideration for patient transportation than for family and friends to visit, simply because most intercity

services are not frequent enough to permit same-day outpatient visits. In addition, use of intercity bus services to provide regional medical trips requires a ride to and from the bus station at either end of the bus trip, adding to the cost, time, and physical effort required. However, in many states, long-distance medical trips under Medicaid do utilize intercity bus services.

Table 3-6 presents a list of all the hospitals and medical centers located in the state. These facilities are also displayed, along with the intercity bus network, in Figure 3-5. Based on the data, it appears that most major medical facilities currently have intercity bus service available, though there are several facilities located some distance from the nearest intercity service. Again, the lack of intercity connections to the north central and northern parts of the state results in a lack of access to regional medical facilities in this area.

Correctional Facilities

As in the case of hospitals, demand for correctional facility trips accounts for only a small percentage of intercity bus trips. However, the ability to make trips from rural areas and small towns to correctional facilities may be crucial to families, released inmates, and employees. Table 3-7 is a list of all the state correctional facilities in Minnesota. Figure 3-5 also shows the correctional facilities served by intercity bus service when considering the 10-mile and 25-mile service distances to the nearest stop. As can be seen, facilities in Red Wing and Togo are at least 25 miles from the nearest existing intercity bus service point, and the Minnesota Correctional Facility in Shakopee is at least 10 miles but less than 25 miles from the nearest service point.

Airports

Table 3-8 presents a list of the airports with commercial air service in Minnesota, and their locations are also depicted in the Figure 3-5 map. MSP, the largest airport, has intercity bus service directly to the airport (Lindbergh Terminal). Of the other airports, all have intercity bus service within ten miles, except for Hibbing and Thief River Falls. These are both located in the northern portion of the state which has no intercity bus service, so they are way more than 25 miles from the nearest intercity stop.

Table 3-6: Trip Generators for Major Medical Centers

Type	Name	Address	City	< 10 miles	10-25 miles	> 25 miles
Major Medical Center	Abbott Northwestern Hospital	800 E. 28th St.	Minneapolis	x		
Major Medical Center	Albert Lea Medical Center-Mayo Health System	404 W. Fountain St.	Albert Lea	x		
Major Medical Center	Anoka Metro Regional Treatment Center	3301 Seventh Ave. N.	Anoka	x		
Major Medical Center	Austin Medical Center-Mayo Health System	1000 First Dr. N.W.	Austin		x	
Major Medical Center	Bethesda Hospital	559 Capitol Blvd.	St Paul	x		
Major Medical Center	Cambridge Medical Center	701 Dellwood St. S.	Cambridge		x	
Major Medical Center	Children's Hospitals and Clinics of Minnesota	345 N. Smith Ave.	St Paul	x		
Major Medical Center	Children's-Minneapolis	2525 Chicago Ave. S.	Minneapolis	x		
Major Medical Center	Community Memorial Hospital	855 Mankato Ave.	Winona	x		
Major Medical Center	District One Hospital	200 State Ave.	Faribault	x		
Major Medical Center	Divine Redeemer Memorial Hospital	724 19th Ave. N.	South St Paul	x		
Major Medical Center	Minnesota Department of Health-Central District	3333 W. Division St.	St Cloud	x		
Major Medical Center	DOH-Freeman Building	625 Robert St. N.	St Paul	x		
Major Medical Center	DOH-Golden Rule Building	85 E. 7th Place	St Paul	x		
Major Medical Center	DOH-Northeastern District	320 W. 2nd St.	Duluth	x		
Major Medical Center	DOH-Northwestern District	705 5th St. N.W.	Bemidji	x		
Major Medical Center	DOH-South Central District	410 Jackson St.	Mankato	x		
Major Medical Center	DOH-Southeastern District	18 Wood Lake Dr. S.E.	Rochester	x		
Major Medical Center	DOH-Southwestern District	1400 E. Lyon St.	Marshall	x		
Major Medical Center	DOH-West Central District	1505 Pebble Lake Rd.	Fergus Falls	x		
Major Medical Center	Douglas County Hospital	111 E. 17th Ave.	Alexandria	x		
Major Medical Center	Fairmont Medical Center-Mayo Health System	800 Medical Center Dr.	Fairmont	x		
Major Medical Center	Fairview Hospital-Chisago Lakes Clinic	11725 Stinson Ave.	Chisago City		x	
Major Medical Center	Fairview Lakes Medical Center	5200 Fairview Blvd.	Wyoming	x		
Major Medical Center	Fairview Northland Medical Center	911 Northland Dr.	Princeton		x	
Major Medical Center	Fairview Red Wing Medical Center	701 Fairview Blvd.	Red Wing			x
Major Medical Center	Fairview Ridges Hospital	201 E. Nicollet Blvd.	Burnsville	x		
Major Medical Center	Fairview Southdale Hospital	6401 France Ave. S.	Edina	x		
Major Medical Center	Fairview University Medical Center-Mesabi	750 E. 34th St.	Hibbing			x
Major Medical Center	Fond du Lac Human Services	1 Veterans Dr.	Minneapolis	x		
Major Medical Center	Golden Valley Health Center	4101 Golden Valley Rd.	Golden Valley	x		

Table 3-6: Trip Generators for Major Medical Centers

Type	Name	Address	City	< 10 miles	10-25 miles	> 25 miles
Major Medical Center	Grand Itasca Clinic and Hospital	1601 Golf Course Rd.	Grand Rapids			x
Major Medical Center	Hennepin County Medical Center	701 Park Ave.	Minneapolis	x		
Major Medical Center	Immanuel St Joseph's-Mayo Health System	1025 Marsh St.	Mankato	x		
Major Medical Center	Lake Region Healthcare Corporation	712 Cascade St. S.	Fergus Falls	x		
Major Medical Center	Lakeview Hospital	927 Churchill St. W.	Stillwater	x		
Major Medical Center	Mercy Hospital	4050 Coon Rapids Blvd. N.W.	Coon Rapids	x		
Major Medical Center	Metropolitan Mt Sinai Medical Center	2215 Park Ave. S.	Minneapolis	x		
Major Medical Center	Midway Hospital	1700 University Ave.	St Paul	x		
Major Medical Center	Miller-Dwan Medical Center	502 E. Second St.	Duluth	x		
Major Medical Center	North Country Health Services	1300 Anne St. N.W.	Bemidji	x		
Major Medical Center	North Memorial Medical Center	3300 Oakdale Ave. N.	Robbinsdale	x		
Major Medical Center	Olmsted Medical Center	1650 Fourth St. S.E.	Rochester	x		
Major Medical Center	Owatonna Hospital	903 S. Oak Ave.	Owatonna	x		
Major Medical Center	Park Nicollet Methodist Hospital	6500 Excelsior Blvd.	St Louis Park	x		
Major Medical Center	Regency Hospital of Minneapolis	1300 Hidden Lakes Pky.	Golden Valley	x		
Major Medical Center	Regina Medical Center	1175 Nininger Rd.	Hastings		x	
Major Medical Center	Regions Hospital	640 Jackson St.	St Paul	x		
Major Medical Center	Rice Memorial Hospital	301 Becker Ave. S.W.	Willmar	x		
Major Medical Center	Ridgeview Medical Center	500 S. Maple St.	Waconia		x	
Major Medical Center	Rochester Methodist Hospital	201 W. Center St.	Rochester	x		
Major Medical Center	Rush City Hospital	760 W. 4th St.	Rush City	x		
Major Medical Center	Saint Ansgar Hospital	715 N. 11th St.	Moorhead	x		
Major Medical Center	Saint Johns Hospital	403 Maria St.	St Paul	x		
Major Medical Center	Saint Josephs Medical Center	523 N. 3rd St.	Brainerd	x		
Major Medical Center	Saint Mary's Hospital	1216 Second St. S.W.	Rochester	x		
Major Medical Center	Saint Mary's Hospital	2414 S. 7th St.	Minneapolis	x		
Major Medical Center	Samaritan Hospital	1515 Charles Ave.	St Paul	x		
Major Medical Center	St Cloud Hospital	1406 Sixth Ave. N.	St Cloud	x		
Major Medical Center	St Francis Regional Medical Center	1455 St. Francis Ave.	Shakopee		x	
Major Medical Center	St John's Hospital	1575 Beam Ave.	Maplewood	x		
Major Medical Center	St Joseph's Hospital	69 W. Exchange St.	St Paul	x		
Major Medical Center	St Luke's Hospital	915 E. First St.	Duluth	x		

Table 3-6: Trip Generators for Major Medical Centers

Type	Name	Address	City	< 10 miles	10-25 miles	> 25 miles
Major Medical Center	St Mary's Innovis Health	1027 Washington Ave.	Detroit Lakes	x		
Major Medical Center	St Mary's Medical Center	407 E. Third St.	Duluth	x		
Major Medical Center	United Hospital, Inc.	333 N. Smith Ave.	St Paul	x		
Major Medical Center	Unity Hospital	550 Osborne Rd. N.E.	Fridley	x		
Major Medical Center	University of Minnesota Medical Center-Riverside C	2450 Riverside Ave.	Minneapolis	x		
Major Medical Center	University of Minnesota Hospital & Clinic	420 Delaware St. S.E.	Minneapolis	x		
Major Medical Center	Veterans Affairs Medical Center	4801 Veterans Dr.	St Cloud	x		
Major Medical Center	Virginia Regional Medical Center	901 9th St. N.	Virginia			x
Major Medical Center	Woodwinds Health Campus	1925 Woodwinds Dr.	Woodbury	x		

Notes:

Medical Facilities listed have 50 or more available beds, and include public and private institutions. Minnesota Department of Health (DOH) offices are also listed.

Source:

Major Medical Centers: MN Dept. of Health Website, http://www.health.state.mn.us/about/direct.html. MN Hospital Association Website, http://www.mnhospitals.org/index/hospitalListing. MN Dept. of Human Services Website, http://www.dhs.state.mn.us/main/i

Table 3-7: Trip Generators for Correctional Facilities

Type	Name	Address	City	< 10 miles	10-25 miles	> 25 miles
Correctional Facility	Minnesota Correctional Facility-Faribault	1101 Linden Ln.	Faribault	x		
Correctional Facility	Minnesota Correctional Facility-Lino Lakes	7525 Fourth Ave.	Lino Lakes	x		
Correctional Facility	Minnesota Correctional Facility-Oak Park Heights	5329 Osgood Ave. N.	Stillwater	x		
Correctional Facility	Minnesota Correctional Facility-Red Wing	1079 Highway 292	Red Wing			x
Correctional Facility	Minnesota Correctional Facility-Rush City	7600 - 525th St.	Rush City	x		
Correctional Facility	Minnesota Correctional Facility-Shakopee	1010 West Sixth Ave.	Shakopee		x	
Correctional Facility	Minnesota Correctional Facility-St. Cloud	2305 Minnesota Blvd. S.E.	St. Cloud	x		
Correctional Facility	Minnesota Correctional Facility-Stillwater	970 Pickett St.	Bayport	x		
Correctional Facility	Minnesota Correctional Facility-Togo	62741 County Rd. 551	Togo			x
Correctional Facility	Minnesota Correctional Facility-Willow River/Moose Lake	1000 Lake Shore Dr.	Moose Lake	x		

Source:
Correctional Facilities: MN Dept. of Corrections Website, http://www.corr.state.mn.us/

Table 3-8: Trip Generators:Airports

Type	Name	Address	City	< 10 miles	10-25 miles	> 25 miles
Airport	Minneapolis-St. Paul International Airport					
	Lindberg Terminal	4300 Glumack Drive	St. Paul	x		
	Humphrey Terminal	7150 Humphrey Drive	Minneapolis	x		
Airport	Bemidji Regional Airport	3824 Moberg Dr. N.W.	Bemidji	x		
Airport	Brainerd Lakes Regional Airport	16384 Airport Rd.	Brainerd	x		
Airport	Chisholm-Hibbing Airport	11038 Highway 37	Hibbing			x
Airport	Duluth International Airport	4701 Grinden Dr.	Duluth	x		
Airport	International Falls Airport	3214 2nd Ave. E.	International Falls			x
Airport	Rochester International Airport	7701 Helgerson Dr. S.W.	Rochester	x		
Airport	St. Cloud International Airport	1550 45th Ave. S.E.	St. Cloud	x		
Airport	Thief River Falls Regional Airport	405 Third St. E.	Thief River Falls			x

Notes:
Airports listed include commercial service airports only.

Source:
Airports: MN Dept. of Transportation Website, http://www.dot.state.mn.us/aero/avoffice/commaviation.html

USER SURVEY

The previous intercity bus study included a survey of users, and the scope for this project also called for a survey of users. For that reason several surveys from other intercity bus studies were reviewed, and a questionnaire was developed and finalized after review by the state and Jefferson Lines. One goal was to have comparability with the data from the previous survey, and a second was to have a survey short enough to allow either an interviewer to ask the questions, or for a passenger to complete the survey in writing on their own.

Several data collection methods were considered. In the previous study, researchers intercepted passengers at major terminal points in different locations, as is commonly done in shopping malls. Other survey efforts by the consulting team involved working with bus drivers to distribute questionnaires at the beginning of their runs, distribute pencils, and then collect the surveys by trip and turn them in for collection and analysis. This required additional efforts by the driver to distribute and collect the forms, put them in an envelope, mark the dates and runs, and then make sure to return the forms to headquarters to be transmitted to the study team. This

process was further complicated by buses that are only part of longer-distance runs. Another issue for this data collection approach was low response rates.

A third survey method that was considered was to have an interviewer ride the bus and interview passengers during the trip. This typically increases survey response rates substantially, improves the quality of the data collected, and allows the interviewer to collect other observations. Jefferson Lines has used this method and strongly encouraged the study team to use this approach rather than simply distributing surveys. The downside is that the staff cost for the interviewers is substantial, particularly given the kinds of daily or less than daily intercity bus services in Minnesota, which do not allow for a quick return from an outbound bus. A schedule was developed that would minimize the staff time and provide one interviewing run on each of the S.5311(f) schedules.

After consultation with Jefferson Lines, the study team decided to conduct the interviews on board the buses. SRF Consulting Group, Inc. staff, based in Minneapolis, performed the interviews and compiled the data Jefferson Lines provided for the interviewers to ride the buses and supported their efforts in data collection. The study team reasoned that even if the number of interviews was limited, the higher percentage response and better quality data would offset the loss of numbers. Placing intercept interviewers in stations, as done previously, was not chosen because an interviewer any place but Minneapolis or St. Paul (possibly Duluth) would see very few boardings in a day, given current ridership levels. Also, placing interviewers in the Twin Cities' stations would have been insufficient for capturing the rural riders going to and from Greater Minnesota.

Interviews were conducted during the period from October 21 to November 17, 2008. Generally intercity bus ridership is seasonal, and this period was neither peak nor trough—the study team wanted to capture ridership during the school year, but after classes had been in session for a while, and before holiday travel peaks. Overall the number of responses was 180. Details on response rates by schedule are included in Appendix A.

Appendix A also presents the questionnaire and the number and percent of responses. Some key findings are described below:

- **Major Origins and Destinations:** The two largest origin points were Duluth and Minneapolis, but 60% of the ridership had its trip originate in other places, each of which had only a few trips. Destinations were even more widely distributed, with Minneapolis the major destination for 26% of the riders, but nearly 70% distributed over many other locations.

- **Trip Purpose:** 36% to visit friends or relatives, 10% for other social reasons, 12% for work, 22% for school or college, five percent for medical purposes. These are comparable to the last national market data published by Greyhound lines.

- **Travel Party Size:** Overwhelmingly single parties ride these buses.

- **Source of Information:** Word of mouth (38%), internet (17%), or other sources (48%).

- **Reason for Using the Bus:** Bus is less expensive (this was during the period of very high gas prices)—41% said yes, but 59% said no. Not having a car or not driving was given as a reason by 39%, with an additional 10% not having a car available for this trip. Somewhat surprisingly, almost 19% either don't like to drive, or felt the bus was easier than driving.

- **Ability to Make the Trip without This Bus:** Of those that answered, 46% would not have been able to make the trip without the bus, and of those who could make the trip without the bus, 27% would have ridden with someone. None would have taken a special program van or bus. If the bus was eliminated, 13% would make fewer trips.

- **Satisfaction with the Service:** Apparently the low frequency of the service is not the major issue for many riders, as only 16% were not satisfied with the frequency. The largest issue for those not satisfied was the length of time it takes to get to a destination. This may reflect the local, all-stops nature of the S.5311(f) services, as contrasted with faster limited stop express services (which tend not to serve rural places). However, when asked what users would change, among the five most frequent answers, "increase express service" was essentially tied with "decrease fares" and "increase service frequency."

- **Demographics:** The majority of those who responded were younger—51% were 18 to 24, and 12% were 25 to 34. Many riders had some level of higher education, with 58% having attended some years at college or technical school, and another 13% having a four-year college degree. Thirty-eight percent had completed high school; 42% were students, and 28% were employed full-time.

- **Auto Ownership and Driver's License:** Only 18% lived in a zero-car household, and 79% had a driver's license.

- **Income:** There was a wide distribution, but the largest percentage was 24% living in a household with over $75,000 per year in annual income.

This information suggested that the Minnesota population using these buses is generally making intercity trips over longer distances to and from a wide variety of places, rather than from small town to big city and back. This pattern may reflect that travel times and schedules do not facilitate a morning in/evening out trip to the Twin Cities from much of the state. The users tend to be students in school or young adults who are working, and they ride because they either don't have a car, a car available for the trip, or using the car is too expensive. The very high percentage of one-person travel parties suggested that if they could share the ride, the trip would be less expensive than the bus and a preferable alternative. However, a significant number of users would make trips less frequently or forgo trips if the bus was not available. Users would like faster travel times, but also more frequency and lower fares.

UNMET NEEDS AS IDENTIFIED IN COORDINATED PUBLIC TRANSIT-HUMAN SERVICES TRANSPORTATION PLANS

Another part of the needs analysis involved reviewing the Coordinated Public Transit-Human Services Transportation Plans developed across the state in 2006-2007. In August 2005, the President signed into law SAFETEA-LU legislation that provides funding for highway and transit programs. SAFETEA-LU includes new planning requirements for the FTA S.5310 (Elderly Individuals and Individuals with Disabilities), S.5316 (Job Access and Reverse Commute – JARC), and S.5317 (New Freedom) Programs, requiring that projects funded through these programs "must be derived from a locally developed, coordinated public transit-human services transportation plan," and the plan must be "developed through a process that includes representatives of public, private, nonprofit transportation and human service providers and participation by members of the public."

FTA guidance defines a coordinated public transit-human services transportation plan as one that identifies the transportation needs of individuals with disabilities, older adults, and people with low incomes; provides strategies for meeting those local needs; and prioritizes transportation services for funding and implementation. In total, there are four required plan elements:

1. An assessment of available services that identifies current providers (public, private, and non-profit);

2. An assessment of transportation needs for individuals with disabilities, older adults, and people with low incomes.

3. Strategies, activities, and/or projects to address the identified gaps and achieve efficiencies in service delivery; and

4. Relative priorities for implementation based on resources, time, and feasibility for implementing specific strategies/activities identified.

Minnesota's Approach to Coordinated Plan Requirements

FTA guidance notes that states and communities may approach the development of a coordinated plan in different ways. In Minnesota, the Department of Transportation's Office of Transit developed a process for meeting this requirement and developing local coordinated plans. Mn/DOT contracted with the Regional Development Commissions in the state to carry out the task of facilitating the planning process and developing coordinated plans, and provided guidance to ensure conformance with federal directives and requirements. In areas without a local planning organization, Mn/DOT's District Offices led the planning process. Regional Development Commissions are multi-county planning and development districts that encourage cooperation between citizens, local government officials, and the private sector. Coordinated transportation plans were developed for all planning regions in Greater Minnesota (1, 2, 3, 4, 5, 6E, 6W, 7E, 7W, 8, 9, Mn/DOT District 6 and 10).

Coordinated Plan Review in Regard to Intercity Bus Services

The regional coordinated public transit-human services transportation plans were reviewed to determine if the assessment processes identified any needs for long-distance services, including potential needs for intercity bus service from rural areas. This review took into consideration that while FTA guidance calls for intercity bus services to be included in the inventory of resources, and for such needs to be identified and considered, the absence of identified intercity bus needs may not indicate a lack of needs since the major focus of the coordinated transportation plans is on the S.5310, JARC, and New Freedom Programs. Therefore, while intercity bus services were not detailed in every plan and explicit intercity bus needs were not evident, identified services, common themes, and specific unmet needs with impact on intercity bus were evident and noted as follows:

Intercity Bus Services from the Transportation Inventory Section

- Region 1, Jefferson Bus Lines
- Region 4, Jefferson and Greyhound Bus Lines
- Region 6E, Jefferson Bus Lines
- Region 6W, Jefferson and Greyhound Bus Lines

- Region 7W, Jefferson Bus Lines
- Region 8, Jefferson Bus Lines

Common Unmet Transportation Themes

- Many of the coordinated transportation plans included the need for additional transportation options in rural areas.

- Many plans identified the need for expanded transportation options on weekends and in evenings.

- Many of the plans detailed the need for more seamless and coordinated transportation services.

Specific Unmet Transportation Needs

- The *West Central Minnesota Transit Coordination Study* for Region 4 included several existing service gaps and issues related to longer distance and interjurisdictional rural transit needs:
  -- Transit service in cities other than where transit system is based
  -- Corridor-based transit between cities
  -- Expansion of public transit service into outlying cities in a county-wide service
  -- Geographic distances in rural areas between pick-up & destination
  -- Coordination efforts between different classes of public transit services

- The *Public Transportation-Human Services Coordination Plan* developed by the Region 5 Development Commission identified possible projects for the region, and included the need for more transportation to the Veterans Hospital in St. Cloud and in Minneapolis.

- The *Public Transit-Human Services Transportation Plan for Region 6-East* noted several relevant unmet transportation needs:
  -- Lack of transportation that cross county lines
  -- Transportation for medical trips to the Twin Cities, Willmar, and St. Cloud
  -- Transportation to rural areas and smaller communities
  -- General public transportation services to the Twin Cities areas
  -- Better transportation outside county, particularly to St. Cloud, Willmar, and Hutchinson
  -- Need for flexible transportation options and more available funds for operating these services

-- A strategy in the plan called for greater transportation for long travel distances

- The *Local Public Transit-Human Service Coordination Plan* prepared by the Upper Minnesota Valley Regional Development Commission for Region 6W noted as one of the weaknesses on transportation services in the region "the lack of regular bus services (Greyhound) to Metro", and "no regular services for people living outside of city limits".

- In the *Region 7E Public Transit-Human Service Coordination Plan* for East Central Minnesota, the first customer need and expectation documented was the lack of transportation when crossing county lines. Also, the lack of public transit in two of the region's counties and the need for more transportation options were noted.

- During local meetings as part of the development of the *Public Transit-Human Service Coordination Plan for Southwest Minnesota* (Region 8) prepared by the Southwest Regional Development Commission, there was discussion of intercity bus services provided by Jefferson Bus Lines and if the current route between Marshall and Sioux Falls could be modified and if there could be a reduced cost for travel to Sioux Falls. In addition, the plan noted that in every county meeting the desire or need to get to a destination beyond the county border was expressed.

- The Needs Assessment section of the *Human Service and Public Transportation Coordination Plan* prepared by the Region 9 Development Commission noted that one of the key issues discussed during county meetings about the plan was transportation that went beyond the county line.

Intercity Bus Service Involvement in Coordinated Plan Development

While intercity bus providers may not have been involved in the development of all of the plans, the *Northwest Minnesota Region One Public Transit Plan* noted that a Steering Committee was created and listed Jefferson Bus Lines as one of the organizations represented on this committee. The *Public Transit-Human Service Coordination Plan for Southwest Minnesota* (Region 8), prepared by the Southwest Regional Development Commission, also included Jefferson Bus Lines on the Technical Team that helped develop the plan. Jefferson Bus Lines had representation at the local meetings held as part of the planning process.

Summary of Issues Identified in the Coordinated Services Plans

Generally speaking, the issue of intercity bus service from rural areas was not a major focus of the coordinated services plans. A number of the plans did identify a need for regional rural services that would cross jurisdictional boundaries and offer services to regional centers, but these were not specifically identified as "intercity" needs In particular, they did not address the potential for such regional rural services to connect with existing intercity services and promote travel out of the region. This may be because there are no such examples in Minnesota to serve as models, and because the plan process did not really include representatives familiar with the potential for such service.

Several of the plans did include transportation needs that could be specifically identified as intercity needs (as opposed to regional services), primarily general public service to the Twin Cities (from Regions 6 East and 6 West) and service for medical trip purposes to the Twin Cities and St. Cloud. One specific discussion addressed the Jefferson Lines service between Marshall and Sioux Falls and an apparent local desire to have a different routing and offer local fares (which would address more regional needs).

UNMET NEEDS AS IDENTIED IN THE CONSULATION PROCESS

As described in Chapter 1, under SAFETEA-LU a new element was added to the S.5311(f) program, a requirement for a consultation process in which stakeholders, including private intercity bus companies, are invited to provide data to the state regarding unmet service or facility needs. This consultation process was initiated as part of this study, and recommendations made for integrating the policy into Minnesota's S.5311 State Management Plan and the S.5311(f) application process (see Chapter 5). A survey questionnaire was developed and distributed through mail and via e-mail to a list of providers and public entities in Minnesota, including intercity bus operators, charter bus companies, airport ground transportation providers, rural transit operators, regional development commissions, and Mn/DOT District Offices. The needs or issues identified in their replies are presented in this section.

The responses to the surveys included a number of service needs, identified in terms of routes or areas needing service. Some of these were clearly local or regional in nature, some were clearly intercity and confirmed the service needs identified through demographic analysis or other means, and a few were intercity service needs not previously identified. Service needs identified included:

- Local Needs:
  - Freeborn County
  - Highway 32 north of Highway 10 (Clay County) to Highway 2
  - Commuter service to/from Fargo and North Moorhead area

- Intercity Service Needs Previously Identified:
  - Minneapolis to La Crosse via Rochester
  - From North to Thief River Falls, Bemidjii, Grand Forks, Fargo
  - Fergus Falls to Fargo/Moorhead via Rothsay and Barnesville on I-94
  - Grand Rapids/Hibbing/Virginia to intercity connections in Duluth (could be regional feeders)
  - Morris, Minnesota to intercity connections
  - Morris, Minnesota to Alexandria, Minnesota
  - More service Mankato to Twin Cities (Highway 14 Mankato to New Ulm, Highway 60 St. James to Mankato, Highway 14 Rochester to Mankato, Highway 169 Twin Cities to Mankato)
  - Cross-state service Bemidjii to Grand Rapids to Duluth, International Falls (without visiting the Twin Cities)
  - University of Minnesota-Minneapolis to University of Wisconsin-Madison (reciprocal agreement)

- Intercity Service Needs not Previously Identified:
  - Henning to Fergus Falls (Productive Alternatives, Inc.)
  - Highway 2 to Bemidjii (1x week)

A number of other consultation process inputs addressed issues with the S.5311(f) program, or service quality or facility issues. These comments included:

- Need for fuel efficient intercity vehicles
- Need for new, quality vehicles (comfortable and convenient)
- Need for wheelchair accessible vehicles (local/regional)
- Need for wheelchair accessible vehicles (airport providers)
- Need for improved intercity bus telephone information
- Need for improved schedule information and marketing (sustained and effective)
- Issues with schedule adherence and customer information of existing intercity bus service in the Bemidjii area
- Lack of demand from Hibbing/Virginia/Grand Rapids led to discontinuance of previous service
- Subsidized competition (or potential competition) on routes is unfair to unsubsidized providers such as airport services—policy should avoid

funding carriers if there is existing service. Airport providers may need assistance to purchase wheelchair-accessible vehicles.

These inputs need to be considered in the development of new policies, and in the revision of the program application and the evaluation of the program. The intercity service needs identified generally confirm those found in previous analysis, and those not previously identified are more regional in nature, and probably more appropriate for funding under the S.5311 program as they have minimal connectivity potential with the national network. Other issues identified should be addressed, including issues with telephone information and schedule adherence.

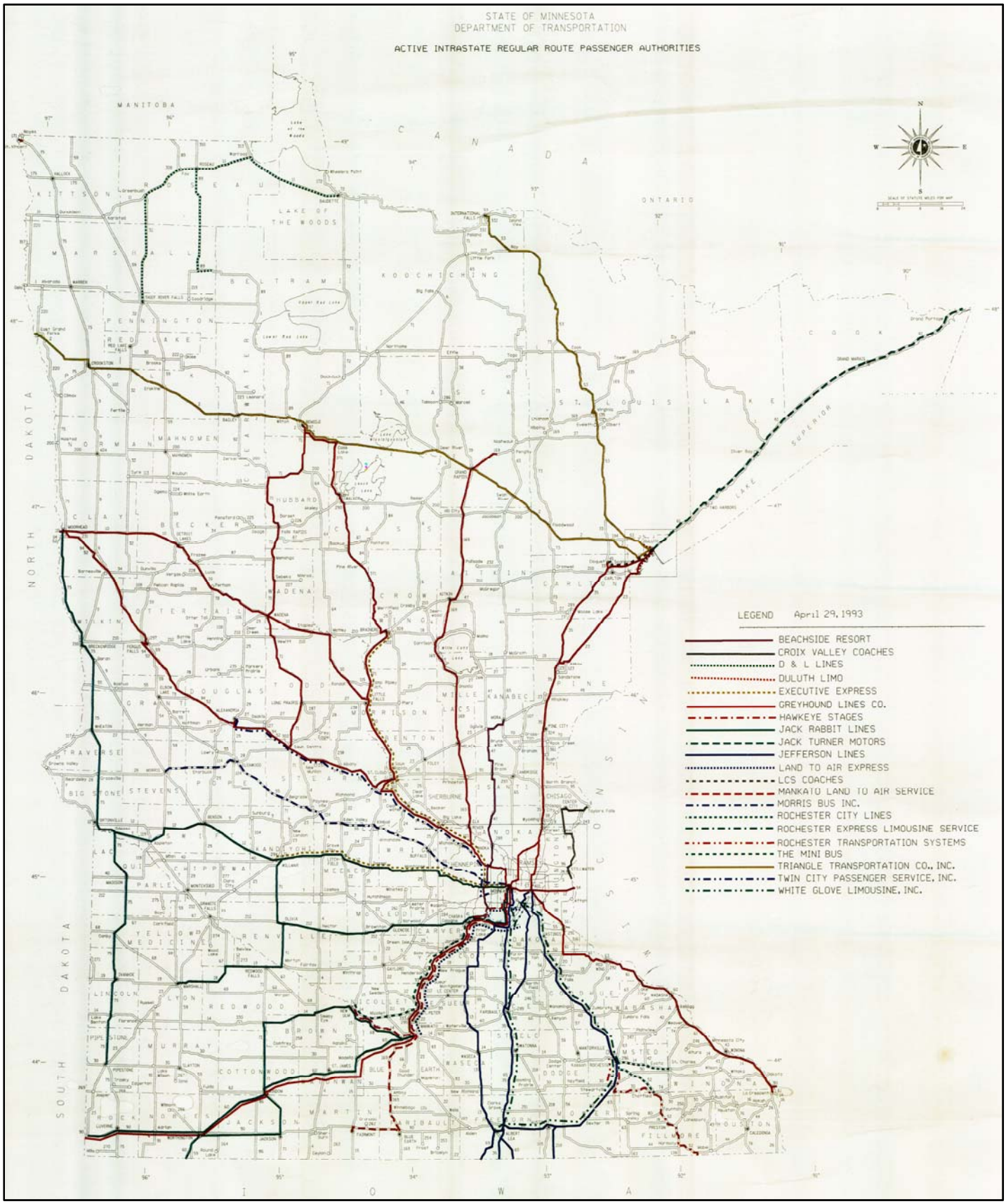
Finally, the airport providers raised a policy question regarding subsidized competition, as there are a number of unsubsidized airport providers in corridors that also have funded intercity bus service. Given the requirements of the S.5311(f) program, applicants need to provide scheduled service and make a meaningful connection with the national intercity network. Airport providers typically operate service that differs from this model in several ways, effectively segmenting the markets based on fare level, destination, and the need for advance reservations. If an airport provider wanted to receive S.5311(f) funding, it could make service revisions to serve both markets and apply for assistance. Conversely, if they wanted to not have subsidized service in the same corridor, they could modify their service to provide the same connections as the intercity bus service, communicate the existence of this service to the state, and request that applications in that corridor not be funded. It would be an issue for Mn/DOT, however, if such a situation led to a carrier dropping the intercity connections as soon as funding for a competing route was eliminated. The issue is a real one, and may well surface during the next application process.

HISTORICAL SERVICE COVERAGE

In addition to looking at demographics and the location of potential key destinations, another way of looking at the potential need for funding or policy changes to improve intercity service is to look back in time to see what cities and routes had service when ridership on the bus was higher, and operating costs were lower. Places that formerly received service might be candidates for some type of subsidized service, whether it is re-instatement of regular-route intercity bus service, or some type of feeder or regional service.

Just to provide some perspective, Figure 3-6 presents a map of Minnesota's intercity bus network in 1993, as documented by Mn/DOT at that time. The Mn/DOT map shows active intrastate authorities; at that time the state still required intrastate carriers to obtain route authority and file the routes and services they intended to

Figure 3-6: Intercity Bus Routes in 1993



provide. It is possible that a number of these carriers did not advertise their services in the national intercity bus timetable guide (*Russell's Official Bus Guide)* or provide for interline fares with intercity carriers, and it is not clear what kind of frequencies these routes represent. Also note that this map represents the network some ten years after deregulation; there was much more service previous to the passage of the Bus Regulatory Reform Act of 1982. At that point in time (1993) it can be seen that the network in Minnesota served many more places, and the routings across the state provided many more opportunities for travel between towns and cities in the state.

In 1993 Greyhound Lines, originally founded in Hibbing, provided extensive coverage in Minnesota. However, since 1993 Greyhound Lines has reduced its rural services, and in 2004-2005 it underwent a major restructuring that particularly affected the north central states. As described previously, in Minnesota Greyhound dropped the services subsidized by Mn/DOT with S.5311(f) funding, which were then taken up by Jefferson Lines. Greyhound services are now limited to the line from Minneapolis-St. Paul to Chicago, a line from Minneapolis-St. Paul south to Tulsa and Dallas, and a line from Minneapolis-St. Paul to Duluth. Greyhound no longer serves Hibbing, where the firm began, and the Greyhound Museum there cannot be reached by intercity bus at all. Similarly, Jefferson is operating on some of the routes once provided by Jack Rabbit Lines in the southwest corner of the state, again with Mn/DOT support. Many of the local carriers have withdrawn their scheduled services, though it should be noted that a number of scheduled intrastate firms provide airport service connecting smaller cities with Minneapolis-St. Paul International Airport. However, many of them operate on routes paralleling Jefferson or Greyhound service, and so do not provide additional coverage.

Compared to the current network presented earlier, the northern part of the state has lost all coverage, there is a loss of coverage in the north central area, and the network to the southwest is much more limited in terms of the number of routes. However, Minnesota has extensive coverage from its rural county-wide transit systems, and that many of the mobility needs formerly met by rural intercity bus may now be addressed by rural transit. For persons in these areas who need to travel outside the county or region, it may be that local rural transit could provide on-demand or scheduled connectivity with the current intercity bus network.

This review of historical service suggests some possibilities for considering state-level policies, and for considering the development of connectivity from rural points without intercity service to the intercity stops that still exist. The rural public transit operations have developed in the period since that time, particularly in parts of the state that appear to have lost all intercity coverage. However, it is true that the private firms, responding to market forces, did not find enough demand to warrant continuation of these services, and a careful look at the potential demand and appropriate service

type/provider would be needed before simply reinstating any of this service with public assistance.

FUTURE DEMAND FOR INTERCITY SERVICE

A relevant question posed by the study scope is about the future demand for intercity bus service, and the resulting network. The previous discussion on changes in the network identified both a reduction in rural intercity bus services and a significant growth in rural county-wide and regional public transit services. The high level of rural transit coverage in Minnesota potentially reduces the demand and need for the regional services formerly operated by many of the private intercity bus companies. So the future demand for intercity bus service really calls for a focus on those services that link rural Minnesota with the major cities and points outside the state, rather than all rural service.

Analytically, at least, an initial approach was to examine the statewide multi-modal transportation plan to determine if there is a statewide travel demand model that projects future overall passenger travel demand, and then apply that projected increase to the existing intercity bus ridership to estimate a future demand for bus travel. However, there is no Minnesota statewide travel demand model to estimate future demand for overall passenger travel, much less intercity bus demand. Even if there were, at this point in time such models are questionable, because they have all been calibrated during a period of low energy prices and expanding highway capacity, when the real cost of auto use was flat or declining. Extrapolations of trends from that era almost always show increased Vehicle Miles Traveled (VMT). However, in the last year or two, a sudden increase in fuel prices and economic troubles have resulted in flat or declining VMT, and the future trends are less certain. Use of highway traffic growth rates for intercity bus ridership would be suspect anyway, because national intercity bus ridership has been declining for some time, even as the population increased and overall travel demand was growing.

Research on travel behavior in rural Minnesota[1] using Census data is useful mainly in revealing trends in population growth or decline, and in the dispersion of population around regional centers. Census travel data is almost entirely focused on the journey to work, and commuting is not a market served by intercity bus. The general pattern across Greater Minnesota seems to be one of increasing levels of employment outside the home (requiring commuting), and an increasing proportion of commuters traveling to jobs outside their county of residence and driving alone to those

[1] John S. Adams, Barbara J. VanDrasek, et al., Urbanization of Minnesota's Countryside, 2000-2025: Evolving Geographies and Transportation Impacts, Minnesota Department of Transportation, Research Services Section, June 2006.

jobs. For many Minnesota regional centers, the population of the commute field is growing while the regional center itself is growing more slowly, or even shrinking in population. For intercity bus this implies that the population is not as tightly clustered around potential stops, and that the potential intercity market area for each stop is larger. The increase in drive-alone commuters suggests a high level of auto availability, potentially having a negative effect on intercity bus ridership over time.

At the same time, there are reports of increasing intercity bus ridership in major markets in which express (limited or non-stop) service is offered between major cities, with pickup points curbside at major transit hubs rather than in bus stations, with ticketing done on the internet. The only example in Minnesota is the Megabus service from Minneapolis to Chicago. To date these services have been successfully implemented between major east coast cities, and in the Megabus network of routes feeding Chicago. The basic principles rely on the perception that passengers prefer not to have intermediate stops. Express service brings the travel time to a level that is more comparable to the private auto. If the market is large enough, multiple frequencies also increase the attractiveness of the service. Greyhound's route restructuring effort in 2004-2005 in many cases involved elimination of routes servicing rural areas and small towns (with many stops), and shifting those vehicles to express services between larger cities—with additional frequencies. These preferences can be seen in the responses of Minnesota's rural intercity bus riders, as presented previously. However, the trend of growth for these express services does not suggest that traditional rural intercity bus service with stops at many small towns will also grow in a similar fashion.

The other growth market is more relevant to rural Minnesota. As noted earlier in the inventory, a number of small airport service operators now provide service from small towns in Greater Minnesota to the Minneapolis-St. Paul Airport. They typically operate on a schedule, but require reservations and may deviate to pick up and drop off customers. Once they have made these pickups, they generally run express to the airport, with scheduled return trips later in the day. These services typically have higher fares than intercity bus, and do not connect with the national intercity bus network. Some may well have higher ridership from a given area than traditional intercity bus. For example, one carrier responding to the consultation process survey provided data demonstrating that its ridership between Duluth and the Twin Cities (MSP airport) is twice that of Greyhound. These carriers generally provide an unsubsidized service to rural and small town Minnesota -- one that appears to be viable. It may be that these services could become part of the intercity network mix under S.5311(f), with some change in their policies to provide meaningful connections to the national intercity bus network (serving intercity bus stations), and operate fixed-schedule service.

Rural intercity bus demand is negatively affected by reduced frequencies as well as route structures with many stops. Over time, as the cost of operating intercity

coaches increases in real terms, carriers are forced to trim service levels, even to the point of service that is less than daily (even with operating subsidies). Ridership suffers, revenue declines, and services are further reduced. A similar downward spiral in the urban transit industry during the 1950's and 1960's was finally arrested with substantial federal, state and local subsidies. Rural intercity bus operating subsidies may provide a stop to this decline, but the available funding only allows for operation at the minimal level of frequency. Within that framework, if the fare levels are constant, the demand is likely to remain steady, or even increase in response to well-targeted service expansions (which may require operating subsidies). For example, Jefferson Lines' Minnesota boardings increased from 147,416 in 2006 to 166,621 in 2007.

One circumstance could increase this demand level, and that is a real sustained increase in the cost of operating personal vehicles. This would most likely be due to an increase in fuel costs, as was seen in the fall of 2008. Higher fuel costs particularly affect persons making long-distance trips, tilting the cost comparison in favor of intercity bus. If fuel price increases also drive up air fares, intercity bus demand for longer trips would likely also increase. In recent times the impact of fuel cost increases have largely been offset by the financial crisis, which has reduced overall trip-making, so the industry generally has seen a decrease in ridership despite the spike in the cost of fuel. So, one circumstance that could reduce rural intercity bus demand is general economic recession, in which potential riders decide to forgo a trip and save the money.

Because the intercity bus network does not require separate right-of-way or major long-term capital investment projects (such as tracks or separate lanes), and there are carriers who can bring buses from their fleets to serve incremental increases in service, the need for a long-range plan is not as a basis for capital planning, but as a policy vision of a desired form of mobility. In terms of a forecast for future development of Minnesota's intercity network, this assessment of future demand based on recent and past trends suggests that a logical way to look at future demand is in terms of policy scenarios:

- One base case in which future rural intercity bus development is essentially constrained to the likely S.5311(f) funding level and program. This would focus on maintaining the current network with perhaps some limited expansion to connect unserved regional centers or the larger unserved towns with need to the network.

- A second scenario in which future development of the network includes the level and program requirements of S.5311(f) program, but with some additional state funding for local match. This additional funding allows for more service expansion, or assists public transit operators in participating in

the S.5311(f) program. Services would continue to be seen as designed to provide meaningful connections to the national intercity bus network.

- A third scenario might be considered to be a more unconstrained funding and program scenario, in which intercity bus, airport providers, and rural public feeders are connected in a network that would be driven more by policy service levels. For example, a policy goal could be to link each regional center with the Twin Cities (airport and cities) with a morning inbound trip and a late afternoon outbound trip (in addition to the current patterns). Connectivity would be considered not only to the national intercity bus network, but to the commercial air system and future rail passenger services.

Another policy issue for rural long-distance transportation has been identified from the Census analysis and the regional coordination plan studies—the need for regional rural public transit services that cross county lines, both for employment trips and for medical needs. None of these intercity bus scenarios would address those needs, some of which could be met with the JARC program, and some of which might require some changes in the rural transportation program overall—perhaps to provide local match for inter-county services. At this point that issue is left to the Greater Minnesota Transit Plan 2010-2030.

SUMMARY

This multi-faceted needs analysis compared the current intercity bus network described in Chapter 2 with the locations of areas that are potentially in need of service, based on population characteristics and the location of potential destinations. It suggests that there are a number of cities and towns in the state that once had intercity bus service but have been bypassed, and have no current service within 25 miles. Some of the areas that have lost intercity bus service may now be served by local transit systems. Regardless, the areas identified with potential needs will be considered in the development of new and expanded intercity bus services, described in the next chapter.

Much of the current service is in the correct place, and current state/federal supported initiatives that fund service in a number of corridors appear to be responsive to some identified needs. Greyhound and Jefferson Lines have both shown willingness to provide the use of the value of its capital as in-kind match to support feeder services to the remaining intercity bus network stops. Such feeder services may well be worthy of emulation in additional projects to serve additional points—if there is demand, and if there is sufficient funding.

Demand is also the key question for many of the places that have potential need but few alternatives. Populations are low, distances are long, and potential service design options will take some development and assessment, including a look at potential providers. However, these issues will need to be addressed in more detail in project design. This needs analysis identified numerous towns as candidates for additional rural intercity bus service, or potential feeder routes to connect to the current network. The user survey and review of past studies provided insight into the service characteristics desired by users. The review of historical services provided ideas for route segments that could be reinstated, given identified needs, while the discussion of future demand presented a number of policy considerations for improving the intercity bus network. These analyses contributed to the development of service alternatives and improvements and policy recommendations described in the next two chapters.

Chapter 4

Minnesota's Intercity Bus Program

This chapter is intended to assess Minnesota's S.5311(f) program policies, consider the current program in terms of the benefits provided and the program's costs, and provide recommendations for changes in the program. Potential changes to the program may be required by changes in goals, changes in the federal guidance, the findings of this study, consultation input, and changes in the overall state transportation policy context. A departmental focus on transportation funding as an investment provides a context for considering the return on that investment, whether in a business sense, or in terms of a cost-benefit or cost-effectiveness approach. The overall federal policy context for this program was presented in Chapter 1, while this chapter considers the Minnesota program as it might be implemented within that context.

PROGRAM GOALS

Recommendations: Maintain Existing Goals as Goals for Minnesota's Intercity Bus Program

The Federal S.5311(f) rural intercity bus program serves three national objectives, which are reiterated in Minnesota's intercity bus program. The first goal is to support meaningful connections between nonurbanized areas and the regional or national system of intercity bus service. Another goal is to support services that meet the intercity travel needs of residents in nonurbanized areas. A third goal is to support the infrastructure used to provide intercity services. Finally, Minnesota's program also aims to promote the maximum feasible coordination of intercity bus service with local public transit and other modes to provide intermodal mobility throughout the state. Further details on the state program's priorities are outlined below.

The previous goals continue to be consistent with federal program goals and state mobility and investment goals. They should be adopted as the goals under a revised, explicitly retitled program, Minnesota's Intercity Bus Program. Under this program the Federal S.5311(f) funding for rural services will remain the major

component, but Minnesota's Intercity Bus Program could also grow to include other components as well. Program priorities designed to achieve these program goals are presented in the following section.

PROGRAM PRIORITIES

Existing: Continue Support for Rural Operations

Provide operating assistance under the current S.5311(f) funding program guidance as needed to maintain the existing rural bus services and provide additional coverage to areas identified as having a high need and sufficient population to warrant service. This program provides federal funding for up to 50% of the net deficit on operations, with the remaining share of the net deficit paid by the carriers, local governments, or other non-federal sources. The federal program also allows for an alternative funding method (called the Pilot Project) that uses the in-kind value of connecting unsubsidized intercity bus service as match for operating assistance.

The existing intercity bus services in Minnesota provide important connections for otherwise isolated rural communities to urban areas and the rest of the country, and an analysis of population characteristics has identified additional areas with a potential service need that are currently not served.

This program priority will be implemented by providing service at cost-effective frequencies, based on the application of performance measures to each route. The services to be funded should be scheduled to allow daytime roundtrips to the Twin Cities from Greater Minnesota. Another aspect of this strategy is to make sure that the funded routes are designed to provide intercity connections to key destinations including residential higher education facilities, military bases, state and federal correctional facilities, and major medical facilities. The patrons to these types of destinations are more likely to have limited access to personal vehicles, and intercity bus services provide an important mobility option for them.

The state program should also consider potential rural transit operators for feeder services to intercity routes that have low ridership levels, such as the existing St. Cloud to Sioux Falls route via Marshall. Or rural transit operators could provide feeder services to current intercity services on former intercity bus routes, such as a Hibbing-Virginia-Grand Rapids service.

This program priority helps meet the needs of residents in nonurbanized areas who travel to the Twin Cities to access healthcare, services, recreational and social

opportunities, and connections to other intercity bus services or other transportation modes such as the international airport or trains.

Recommendation: Preferred Service Level of One Daylight Round-trip per Day, and Implement New Services in Areas of High Potential Need

Provide support for a minimum rural intercity service standard of one round-trip per day on existing rural routes and new services in areas of high potential need. This recommendation is based on the results of the consultation process and consideration of the needs of rural residents. Intercity bus services in the United States have typically been provided at least daily (except for weekend or holiday special trips) to facilitate connectivity and to address greater demand for weekend travel. Although some of Minnesota's currently funded routes do not meet this standard at this time, it is recommended that efforts be made to work toward this preferred level of service statewide. In addition, previous chapters in this study have identified areas of the state that do not currently have intercity bus access, and it is recommended that Minnesota's Intercity Bus Program develops intercity bus access in these areas under this program priority.

Recommendation: Encourage Coordination with Local Transit

Improve the linkage between local public transportation and the intercity bus services, as the persons who need public transportation are likely to also have need of transportation for longer trips as well. This strategy could include efforts to make sure that intercity bus stops are served by local transit, to have transit operators become bus ticket agents, to have transit systems provide intercity schedule information, telephone information services that provide intercity bus riders with transit information, specific schedules on local transit to make connections with intercity service, etc. This strategy also has a significant information component, discussed below. Interline ticketing of intercity bus and rural feeder services (under the National Bus Traffic Association (NBTA)) would also support rural connectivity.

Recommendation: Support Infrastructure Improvements

Plan for and pursue capital investments in the infrastructure necessary to support a network capable of providing the services called for by the other goals. Providing capital assistance for the purchase of new buses to be used on the funded routes will improve service quality, including comfort and reliability. It will also reduce the operating costs (and therefore the need for operating assistance) through reduced maintenance costs. The program could also reduce operating costs by providing appropriate size vehicles, and allowing large vehicles to be deployed elsewhere. Finally, new equipment will ensure that persons with disabilities can access services as a result of accessible equipment (and trained staff). Capitalized maintenance

is also part of this strategy, as the existing vehicles used for rural intercity service will also need to be maintained to ensure reliable service. Finally, within the available funding, projects that provide for other capital improvements for passenger facilities could be supported.

Existing: Provide User Information

Provide improved information about the available services to the potential users of intercity bus service. This aspect of the current program has involved support for telephone information and marketing, including marketing plans, development of advertising and informational materials, placement of advertisements, and events. However, input from the consultation process and the on-board surveys suggests a need to improve user information.

Recommendation: Enhance User Information

Provide support for enhanced user information, including support for internet information, such as development and maintenance of web-sites or uploading service information to national way-finding sites, like Google Maps. Smart-phone methods of providing information about both intercity services and connecting local services could be another way of implementing this recommendation. Providing intercity bus service information through Mobility Management program efforts would also be a part of this recommendation, so that human service agency customers and providers would also know about this option.

Recommendation: Enhance Coordination with Neighboring States

Work with adjacent states to investigate the potential for joint funding of interstate rural services that are affected by recent or potential future service losses. Services to North Dakota, to Fargo and points west; Iowa to the south; and Michigan and Wisconsin, in the northeast and east directions, offer joint funding opportunities for services that would maintain or improve interstate mobility options.

Recommendation: Provide Non-Local Match for Operations

Consider providing funding for some portion (possibly 50%) or all of the local operating match from other sources (other than the carrier or federal funding).

There are two major reasons for considering such a change in policy. First, private carriers are generally reluctant to apply for or bid to provide assisted services if they have to provide 50% of the net operating deficit. To this point, Minnesota has benefited from an exceptional carrier which has been willing to provide the local operating match. Also, rural public transit operators that might be inclined to provide

rural intercity feeder services may be reluctant to apply, as local jurisdictions are often not as enthused about providing match for services that go outside their boundaries.

The second major reason to consider such a change is that a carrier faced with the need to provide half the net deficit as match will seek to minimize operating costs. This is good in that carriers focus on providing more efficient services, but the potential negative outcome is minimal service levels, such as less-than-daily service.

Recommendation: Provide for Intercity Bus Services Not Eligible for Section 5311(f) Funding

Consider providing intercity bus services outside of the S.5311(f) funding program to offer a higher level of intercity or regional connectivity in terms of coverage and frequency. The state program should develop a long-term vision for the intercity bus network and services that could be achieved if funding was not so constrained by these federal program requirements. Regional services that address commuter needs, higher frequencies, and more express services between larger towns exemplify a few visionary possibilities. The role of the airport providers as intercity carriers could also be examined. Airport providers could potentially meet some of the identified intercity travel needs, either under S.5311(f) or outside it. Whether there is a public role in assisting airport providers is another issue to consider.

Major intermodal connectivity is another strategy to be addressed in the long-term. The new Target Field station will mark the start of a new Minneapolis transit hub. The Target Field station will accommodate a commuter train and light rail, and this is expected to connect these services to buses, taxis, and other modes as well. The St. Paul Union Depot has the potential to become a major intermodal hub in the future, particularly if high speed rail service is implemented.

INVESTMENT STRATEGIES

Within the general framework of the strategies to be implemented in the Minnesota Intercity Bus Program, strategies to be addressed fall under two categories: providing operating assistance or capital assistance.

Operating Assistance Strategies

Invest in Services that Provide a Meaningful Connection to the National Network of Intercity Bus Service

A major strategy in providing operating assistance is to fund services that provide a meaningful connection to existing intercity services. The meaningful connection can be made at shared or co-located stops, by coordinating schedules, or by coordinating information provision. Another priority is to maintain existing service coverage. Both limited stop and local service should be provided in major travel corridors that can support it, such as the existing Minneapolis to Duluth and Minneapolis to Fargo routes.

Invest in New Services in Areas of High Potential Need

New services will be prioritized in areas identified as having a high potential need based on demographic characteristics, including the density of autoless households, the young adult population, the older adult population, and persons with mobility limitations, or key destinations such as higher education, major medical, military, and correctional facilities. Priority will also be given to new services where potential demand, based on population characteristics and key destinations, shows potential for ridership levels that would enable the service to be cost-effective.

Confirm that Services are Cost-Effective

For new service, the state program will initiate services as demonstration projects, with continuation dependent on achieving minimal performance thresholds. For funded service that is not achieving farebox requirements, one of the priorities will be to initiate intensive and targeted marketing efforts, including surveys of users and promotional activities. Another priority will be to adjust service levels to improve performance. Some potential actions include reducing service frequency to less than weekday service, revising the routing, utilizing smaller vehicles, and contracting with less costly operators. If these actions fail, non-intercity service alternatives will be pursued and/or the service will be discontinued.

Capital Assistance Strategies

Invest in New Vehicles to Operate Funded Services

The state program should provide vehicle capital in cases where carrier vehicles are not appropriate (too large, too costly) for the level of ridership, and in cases where vehicles operating funded service are in poor condition, have high maintenance costs, or are unreliable. The state would retain its vested interest in vehicles, so that if there

was a change in carrier, the vehicle would continue to be available to serve that route, or could be shifted to another rural route. Another priority related to capital assistance is to capitalize maintenance for scheduled service vehicles operated by S.5311(f) carriers.

Under the current Mn/DOT S.5311(f) program, capital for vehicles is not a high priority. Originally this practice made sense, as the amount of S.5311(f) funding was limited (to the S.5311(f) set-aside of 15% of the state's overall Section 5311 allocation). With limited funding, and the potential need for substantial operating assistance to maintain existing services, it made sense to limit capital projects, as a few intercity coaches (at $500,000 each) could easily consume the entire Minnesota S.5311(f) allocation. Capital projects involving non-vehicle purchases are eligible, as is marketing. Capitalized maintenance of carrier vehicles used for S.5311(f) service is also eligible under the current program.

Minnesota's annual S.5311(f) allocation under SAFETEA-LU has risen to $1,906,871 for FY10. Recent experience with the program suggests that the existing operating assistance requirements are likely to be in the range of $600,000 to $700,000 per year, depending on ridership and use of Pilot Project funding. Capitalized maintenance has been running at about $100,000 per year, and marketing at about $160,000-$180,000. So the annual obligations for the program have been less than the allocated amount for several years (see Table 4-1). This has led to the creation of a balance in the program. Recently, Minnesota had the opportunity to utilize funding from the American Recovery and Reinvestment Act (ARRA) of 2009 for capital projects for transit. As the same 15% allocation applies to the ARRA funding as to the basic S.5311 program, this amounted to $2.8 million and the funding was used to purchase vehicle capital for use on S.5311(f) funded routes in Minnesota.

Table 4-1: Minnesota Section 5311(f) Funding Utilization and Availability

Federal Fiscal Year	S.5311 Apportionment	Available S.5311(f) at 15%
2004	$5,874,251	$881,138
2005	$6,148,482	$922,272
2006	$10,619,732	$1,592,960
2007	$11,178,461	$1,676,769
2008	$12,053,851	$1,808,078

Data from 2004-2008 FTA Fiscal Year Apportionments and Allocations

Based on this precedent, the available funding, the limited scope for expansion of S.5311(f) service (based on the needs analysis in this study), and the potential cost-saving benefits of new vehicles, a change in policy is recommended to allow for vehicle capital as an eligible expense. This change would be of benefit to the program for several reasons. The private carrier using its own vehicles has to pay for them, and pay the maintenance on them (except for the capitalized maintenance and repairs). This is included in the fully-allocated cost per mile used to determine the operating assistance. A higher cost per mile increases the operating deficit, which increases the amount of match the carrier must provide (and the amount of federal funding required). If the vehicles on that route were funded by the program, the fully-allocated cost per mile would be reduced by the capital cost of the vehicles (converted into a per-mile equivalent), lowering the operating costs and reducing the net deficit, and the local match requirement. Newer vehicles would also have lower maintenance costs, including some period under warranty, and then gradually increasing with time and miles. These lower costs would also be reflected in reduced operating costs. In addition, new vehicles could be fully wheelchair accessible, environmentally compliant, and would be more attractive to potential users. Many bus companies are now purchasing buses with Wi-Fi and electrical plug-ins to allow users to use laptops (and select their own movies). New vehicles may well be more attractive to riders, and add to revenue.

If the operating assistance needs remain at current levels, it may be possible to fund much of the needed fleet for the S.5311(f) program, with an ongoing replacement policy based on the useful life of the vehicles. Without doing a detailed, schedule-based utilization analysis, the number of vehicles needed to operate the existing and potential rural intercity routes at current frequencies is on the order of 16-20 vehicles statewide, including a 10% spare ratio. Five have already been ordered under ARRA, so two intercity coaches a year (potentially affordable) would replace the entire fleet over eight years.

Modification of the vehicle capital elements of the S.5311 application could reflect program differences for S.5311(f). Additional policies would be needed to address the private carrier's contribution of the local match; any differences needed in terms of disposition of the vehicle in the event the operator no longer does S.5311(f) service (they could buy out the state interest, or the vehicle could be sold and the funds returned); limitations on the use of the vehicle for non-S.5311(f) service, limitations on the use of the vehicle for out-of-state service (limited to specific destinations, or a limited number of hours out-of-state); and a prohibition on the use of the vehicle for charters (or school service, for that matter). The vehicle would need to be marked as funded through Mn/DOT, with an identification number, and maintenance conducted and documented. Some states have found that if the carrier has the option of retaining the vehicle at the end of the useful life, the interest in maintenance is higher.

Invest in Passenger Facility Improvements

A lower priority is to provide capital funding for limited assistance for improvements to dedicated intercity bus stations/stops, after other needs are met. Such investments should only be made in cases where a continuing use for support of passenger transportation can be assured (such as publicly-owned transit centers), or where the investment could be moved and reused if route or agency changes required (such as a shelter and signage).

Information and Marketing Strategies

Invest in Information and Marketing Systems

A key strategy for the marketing and information systems component of Minnesota's intercity bus program is carrier marketing for subsidized routes to boost ridership as much as possible. Information systems should also be developed to provide public information on the intercity network. Google Transit links on the Mn/DOT intercity bus information webpage, and Mobility Managers are potential resources to distribute information on the intercity bus services available in the state.

Currently Mn/DOT provides funding for marketing intercity bus services under the program, and this should be continued as an eligible activity. An additional specific project for which the state may want to solicit applications would be improved statewide information on available services depicting the linkages and potential schedules. Many transit systems are providing service data on routes, schedules, and fares to Google Transit for use in this internet based information system. Previous projects in other states have attempted to create a comparable statewide information system, but at this time none are operational. However, Amtrak has worked with Google to place Amtrak service on Google Transit, demonstrating that it is technically possible to offer this information for intercity services. Similar efforts for intercity bus, as well as additional information (for example on the Mn/DOT website) locations could be funded out of this program. This effort may result from a project application from a carrier, but it might also come from an information technology source, or may even be an in-house project. Initially, however, the state could make a specific solicitation as part of the grant application.

In priority order, these investment strategies focus first on maintaining existing service, second on getting back access that has been lost, and third on elements that would support the entire network such as buses, information, and terminals. These strategies will likely be further refined or modified in future years.

PERFORMANCE INDICATORS

Changes in evaluation criteria are intended to focus the limited federal funds on maintaining the most cost-effective existing service, and focusing service expansion on stops that have been identified as having a higher priority based on the population characteristics or having key destinations that are unserved. The evaluation should be done on a project basis, with each corridor or service evaluated separately in terms of the points served, the costs, ridership, revenue, and farebox recovery. Limited changes in the grant application will ensure that the information needed for this evaluation can be easily determined.

Availability

Percentage of the Population with Access to Intercity Bus Services

Several measures will be used to determine the progress and success of Minnesota's intercity bus program. One measure is the percent of the state population for which intercity bus is accessible, which is defined as a driving distance of 25 miles or less from an intercity bus stop. The program will identify a minimum percentage and may need to pursue service expansion to reach this standard. The state population served will also need to be continuously monitored, likely using American Community Survey data provided by the U.S. Bureau of the Census, to account for population changes.

Percentage of Primary and Secondary Regional Trade Centers with Intercity Bus Service

Another measure is the degree to which primary and secondary regional trade centers are served by intercity bus. The ultimate goal is to provide intercity bus service to all of Minnesota's primary and secondary regional trade centers. While all the primary trade centers are currently served, several secondary trade centers are not:

- Virginia
- Chisholm-Hibbing
- Grand Rapids
- Cambridge
- Buffalo
- Hutchinson
- Hastings
- Red Wing
- Austin
- New Ulm

These destinations represent opportunities to expand intercity bus service or coordinate with local public transit services where feasible.

Cost-Effectiveness

Farebox Recovery

The other major change in evaluation is the use of route level farebox recovery to evaluate the continuation of existing projects, or consider route expansions. In general, the application will be revised to make explicit the farebox recovery over the previous year (or the projected farebox recovery), and projects will be evaluated on that basis. Table 4-2 presents a summary of the current services and their FY 2008 performance, to illustrate the potential for use of this measure in assessing service. As can be seen, most of the current services exceed this threshold, but they could all be ranked on this measure, with the highest performance routes given a higher score.

The key performance indicator will be the percentage of route or service operating costs covered by fare (and package express) revenue. This measure is most similar to the measure used by private intercity bus operators, who compare the revenue (in cents per mile) to the cost (cost per mile). Because intercity bus fares typically vary with distance, this is a measure of the utilization of the available capacity. It also reflects the costs for a particular service, fare policy, and consumer willingness to pay. It is proposed that Minnesota's Intercity Bus Program will provide for continuing service on routes that achieve a 20% farebox recovery within 18 months of startup. Services that do not attain or maintain this level are subject to discontinuation of funding if efforts to reduce costs or increase revenues are unsuccessful.

PROGRAM POLICIES RECOMMENDATIONS

The Minnesota intercity bus program will need to develop policies regarding multiple carriers on the same corridor, addressing issues such as avoiding duplication and equitable funding, and service withdrawals during the term of grant agreement. A number of recommendations can be made for developing this policy:

Application:

- Existing: Mn/DOT will not provide operating funding for service that is in direct competition with unsubsidized service between the same two points.

- Recommendation: Mn/DOT should provide funding to no more than one carrier providing similar service in the same corridor.

Table 4-2: Section 5311(f) Routes - Farebox Recovery Ratio for 2008

Schedule Number	Route Description	Farebox Ratio: Average 08
701a	Minneapolis-Sioux Falls	84%
702a	Sioux Falls-Minneapolis	73%
701/702 Total		77%
901	Minneapolis-Madison	73%
902	Madison-Minneapolis	60%
901/902 Total		67%
905	Minneapolis-Duluth	19%
906	Duluth-Minneapolis	80%
905/906 Total		24%
907	Minneapolis-Duluth	91%
908	Duluth-Minneapolis	38%
907/908 Total		46%
909	Minneapolis-Duluth	84%
910	Duluth-Minneapolis	93%
909/910 Total		86%
925	Minneapolis-Sioux Falls	42%
926	Sioux Falls-Minneapolis	36%
925/926 Total		39%
927	Minneapolis-Fargo*	39%
928	Fargo-Minneapolis*	41%
927/928 Total		40%
929a	Minneapolis-Wadena	69%
930a	Wadena-Minneapolis	78%
929a/930a Total		75%
929b	Wadena-Fargo	40%
930b	Fargo-Wadena	57%
930 Total		48%
921	St. Cloud-Willmar	17%
923	Willmar-Sioux Falls	27%
924	Willmar-Minneapolis	11%
925	*Minneapolis-Willmar*	33%
926	*Sioux Falls-St. Cloud*	36%
new 925/926 Total		35%
Totals		59%

Notes: The farebox ratio averages for 2008 were based on available data from Jefferson Lines (data for some routes was missing for certain months). The new segments 921, 923, 924, and changed 925 and 926 began in April 2008, though in July 2008, routes 925 and 926 were expanded to cover the 921, 923, and 924 services.

- Recommendation: If there are two or more proposals for the same corridor, one with carrier-provided local match and the other using Pilot Project funding, and they are otherwise comparable, the state should favor the one that requires less of the available federal funding.

- Recommendation: Mn/DOT should provide direction in its application regarding the location and amount of service it would like to see provided.

Ongoing:

- Recommendation: Mn/DOT should evaluate projects on a corridor by corridor basis (so it can tell the subsidy in each corridor, the revenue, the cost, the farebox recovery, etc.).

- Recommendation: Provision of vehicle capital should be considered as a strategy to support the infrastructure of the intercity bus system, while reducing net operating deficits. For services that have high farebox recovery rates, provision of bus capital only should be considered as a strategy to eliminate the need for operating assistance.

- Recommendation: Mn/DOT should conduct a bi-annual consultation process which should involve identifying intercity carriers, soliciting input on rural intercity transportation needs, potentially conducting other studies to determine need (an example is this study); and making policy decisions in light of identified needs.

LINKAGES TO OTHER STATE POLICY DOCUMENTS

With the updated policies and procedures for the Minnesota S.5311(f) rural intercity bus program, and the data emerging from this overview of the existing services and potential needs, there is an opportunity to link this study to other Mn/DOT policy documents. Some of these linkages have already been made during the study. The policy documents and the suggested linkages are as follows:

Greater Minnesota Transit Plan

- Add references in the introduction and in the conclusion noting that this aspect of the S.5311 program is addressed in a separate study, with the title, date, and availability of this additional study.

- Incorporate a map of the existing intercity bus services, showing which are currently funded with S.5311(f).

- Add a program summary and description section, noting what the Section 5311(f) funding is for, etc.

Statewide Transportation Plan

- Add a chapter, subsection (or appendix) describing:
  -- The existing service, including all intercity service, the portion funded by S.5311(f), and the airport providers. This could include text and a map.
  -- The state's role in providing S.5311(f) funding, including the amount of funding, its purpose, program limitations (rural areas, no commuter service), the role of the private carriers, the requirement for matching funds, and the source of that funding (the carriers).
  -- A description of the evaluation criteria used by Mn/DOT for choosing projects, including program priorities (and how determined—this might include a map of High Needs areas in relation to the routes), eligible projects, and the use of a performance measure (farebox recovery) to choose among projects that address the priority needs and are fully eligible.
  -- A presentation of the alternative future networks, including a brief description of alternative scenarios, a map, and estimates of costs to provide higher levels of service.

- Evaluation Criteria for Statewide Plan:
  -- Percentage of population with access to intercity bus service (from American Community Survey) within 25 miles.
  -- Percentage of Regional Trade Centers served by intercity bus (at least three round-trips per week to/from the Twin Cities).

Chapter 5

Potential Future Networks

The purpose of this chapter is to outline short-term improvements to Minnesota's intercity bus network, which may be implemented in 2010, as well as a longer-term vision for 2020. The 2020 recommended network aims to provide comprehensive services throughout the state, not only expanding intercity bus routes, but also coordinating schedules with rural feeders. Such coordination will help meet the travel needs of more rural communities and allow these residents to access the Twin Cities and other regional activity centers. This visionary network will include expanded geographic coverage as well as increased frequencies and opportunities for connections to local and regional transit services.

The future intercity bus network may also play a critical role in providing feeder service to proposed passenger rail services in the state. The most recent update to plans for the Midwest Regional Rail System outlined rail service that could run up to 110 miles per hour from the Twin Cities to Chicago, serving Madison and Milwaukee as well. This improvement would cut the current travel time of eight hours to Chicago down to five-and-a-half. The Minnesota segment of this service may run between St. Paul and La Crescent.[1] The Northern Lights Express is another proposed passenger rail project that will provide two-hour service between Minneapolis and Duluth, also with top speeds of 110 miles per hour.[2] Intercity bus would play a major role in enabling residents in outlying communities to access these proposed rail services.

This chapter provides an overview of the new services and service improvements recommended for Minnesota's intercity bus network in 2010 and 2020, including coordination with other transportation services. The costs and capital needs of these recommended networks are described, along with alternative funding policies. Finally, the chapter outlines a recommended network strategy for the near-term given

[1] Midwest Regional Rail Initiative. January 2005. MnDOT High Speed Rail Website, http://www.dot.state.mn.us/passengerrail/onepagers/midwest.html (accessed September 17, 2009).
[2] Northern Lights Express Website, http://www.northernlightsexpress.org/joomla/index.php (accessed March 22, 2010).

current funding availability and the federal program structure in the current federal transportation authorizing legislation.

ALTERNATIVE NETWORKS

Recommended Network in 2010

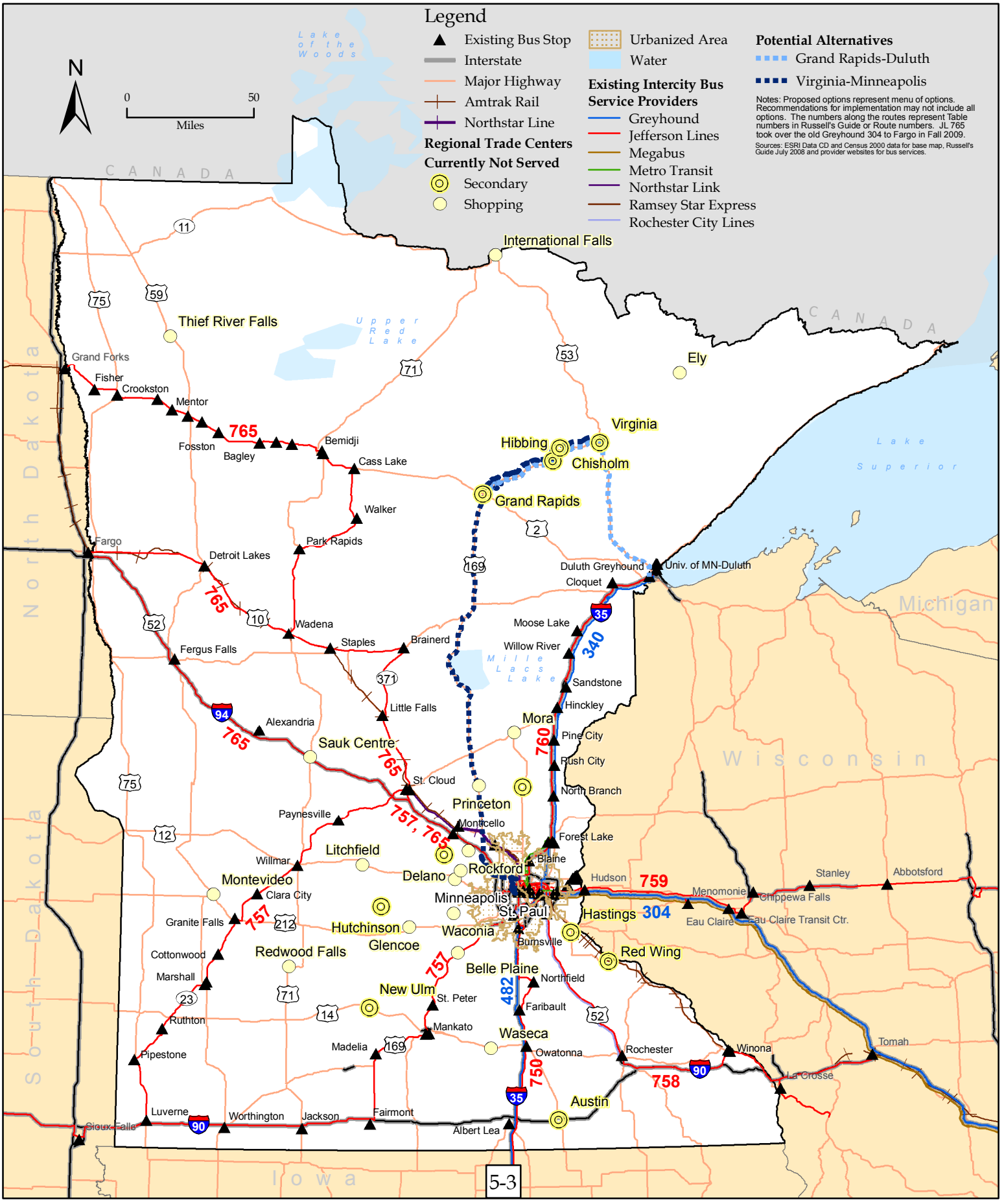
Shown in Figure 5-1, the intercity bus network recommended for 2010 is very similar to the current network, with a few additions. New service to Grand Rapids, Hibbing, and Virginia will allow residents in these areas to access the Twin Cities. One option is for this service to feed into existing services at Duluth that link it to St. Paul and Minneapolis. Currently, Greyhound provides daily express service from Duluth to the Twin Cities, while Jefferson Lines provides daily local service along I-35.[3] A route feeding the current schedule operated by Greyhound would allow residents of Grand Rapids, Hibbing, and Virginia to access both Duluth and Minneapolis for a day trip. Another option is to provide direct service from Virginia, stopping at Hibbing and Grand Rapids, to Minneapolis. This option may be more attractive to passengers, as they do not have to transfer in Duluth, but it is also significantly more costly (see section on Projected Costs later in this chapter). This service was formerly operated by a private firm, Lorenz Bus Lines, who discontinued it in March of 2007 due to low ridership. Lorenz did not seek S.5311(f) funding for operating support, though they did contact the state regarding the possible use of the funding for marketing. Operating a separate route all the way into Minneapolis/St. Paul involves the costs of the entire route. If it were utilized, several additional points could be served, including Princeton (a regional shopping center).

The state may also consider building upon existing transit connections from International Falls to Virginia and Duluth. Arrowhead Transit currently provides coordinated public transportation service to seven counties in northeastern Minnesota, including the potential new intercity bus stops of Virginia, Hibbing, and Grand Rapids, as well as the existing stop at Duluth. Arrowhead Transit runs a scheduled bus service from International Falls to Duluth on the second Friday of each month, given that at least five riders sign up for the trip. Though this service is meant as a day trip for International Falls residents to access shopping and services in Duluth, riders could potentially connect with the intercity bus services from Duluth to the Twin Cities.[4] However, those that connect to intercity bus service do not have a scheduled bus option

[3] The future of the Greyhound service from Duluth to the Twin Cities is uncertain, and Greyhound may decide to cut this service in the near future.

[4] Given the existing schedules of the Arrowhead Transit service from International Falls to Duluth and the intercity bus routes from Duluth to Minneapolis, these residents would arrive at 9:30 a.m. and have to wait many hours before connecting to Jefferson Lines service at 4:00 p.m. to Minneapolis.

Figure 5-1: Recommended Network in 2010



for the return trip to International Falls. The state could work with Arrowhead Transit to expand this feeder service, whether connecting at Duluth or Virginia to access Minneapolis-bound intercity bus services.

While Jefferson Lines also provides service between Duluth and the Twin Cities, their service includes many local stops, which may be unattractive to passengers whose final destination is the Twin Cities. However, the current Jefferson schedule has an afternoon departure from Duluth, which might work better for service originating in International Falls, allowing the initial departure at a better time in the morning. If a new feeder service connected to the Greyhound service, it could potentially be eligible for FTA's pilot project and use the value of Greyhound's capital on the Duluth-Minneapolis route as in-kind match. Because the Jefferson service is already funded with S.5311(f) funding, the in-kind match option would not be available if the new service connected to Jefferson Lines in Duluth.

Network Development 2010-2020

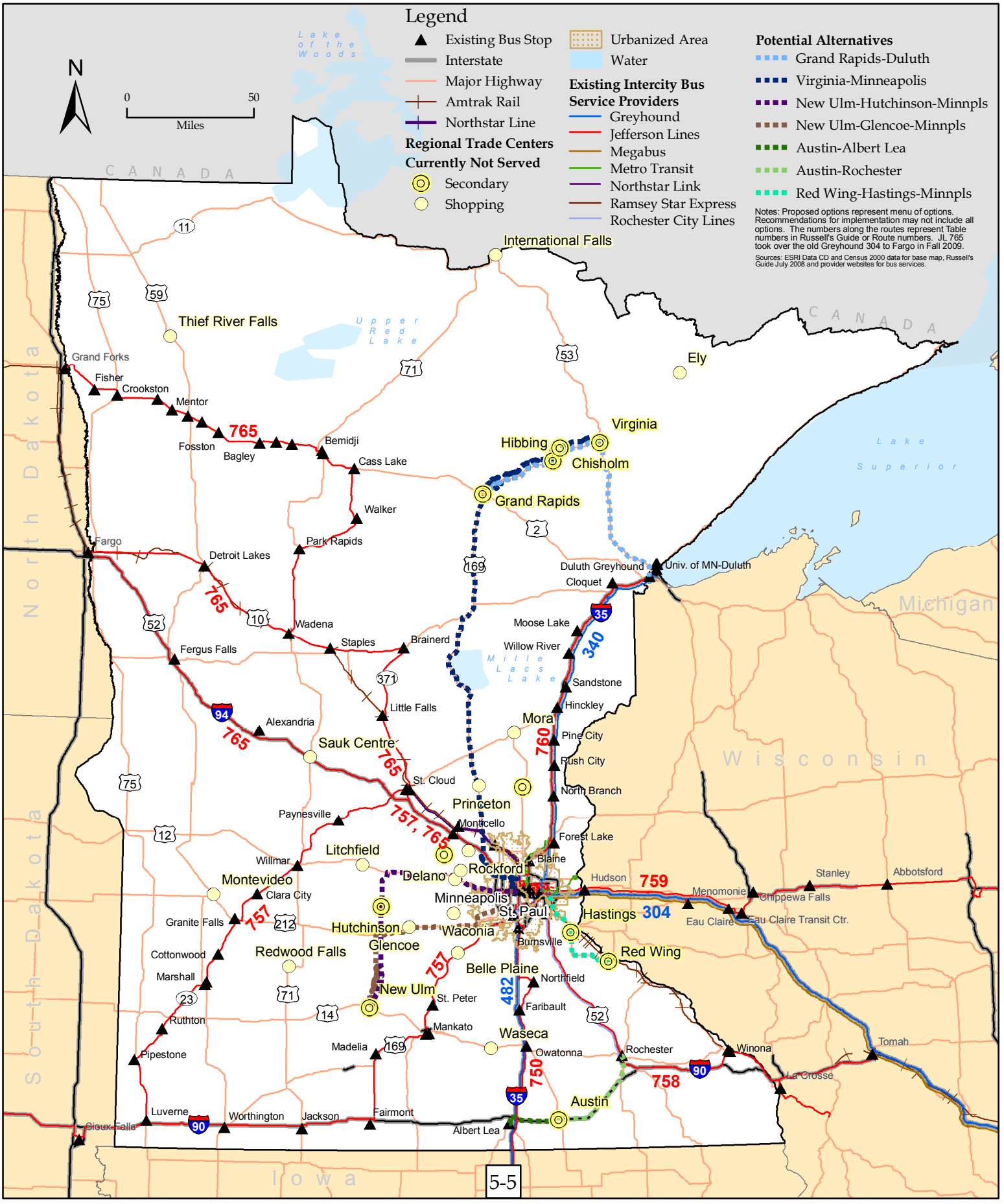
Potential new services, in addition to the service to Virginia, Hibbing, and Grand Rapids described above, include route options in the southern part of the state. Shown in Figure 5-2, these new services were developed based on the needs analysis described in Chapter 3. The proposed routes serve cities where high relative transportation needs have been identified, as well as regional trade centers that are not currently served by intercity bus. The proposed new services will contribute toward the goal of the state's Interregional Corridor System, to promote economic vitality throughout the state by providing safe and efficient transportation between regional trade centers.[5]

Two potential alternatives connect New Ulm to Minneapolis. The first option travels north from New Ulm on MN-15 and serves Hutchinson, another regional trade center, before taking US-12 toward Minneapolis and stopping at Delano, a shopping activity center, along the way. The second option provides a more direct trip to Minneapolis, taking US-212 and possibly stopping at Glencoe, a shopping activity center, en route. Either of these options would address a gap in intercity bus service in this part of the state, where regional trade centers are more than 25 miles away from the Twin Cities.

Two other potential alternatives would provide regional links from Austin to the existing intercity network. One alternative connects Austin to Rochester, while the other connects to Albert Lea. The connection to Rochester may be more attractive

[5] Regional trade centers were outlined in Mn/DOT's Interregional Corridor Study, which identified major transportation corridors in the state and was adopted in January 2000 as part of the State Transportation Plan. Source: Mn/DOT Interregional Corridor System Website, http://www.dot.state.mn.us/planning/program/regional_new.html (accessed September 17, 2009).

Figure 5-2: Network Development 2010-2020



because Rochester is a primary regional trade center, which has more attractions and services, whereas Albert Lea is a secondary regional trade center. However, the existing service from Minneapolis to Albert Lea operates more frequently and offers greater access to Minneapolis.

Another potential alternative serves two regional trade centers southeast of Minneapolis; Hastings and Red Wing. Currently, Amtrak provides one daily trip from Red Wing to St. Paul at night. Intercity bus service in this corridor would make day trips to the Twin Cities possible and offer greater frequencies than Amtrak service.

Because there are several possible service options for this expansion, the state should include its desire to expand service to this area in its next grant solicitation, and allow for responders to develop projects that meet needs in the corridor within the parameters of the S.5311(f) program.

Recommended Network in 2020

The network recommended for 2020 was unconstrained by current levels of S.5311(f) funding and restrictions to rural areas in order to design a system that is more comprehensive and addresses the state's projected intercity travel needs over the next decade. Geographically, the recommended network for 2020 covers the same areas shown in Figure 5-2. Minnesota's existing intercity bus network has decent geographic coverage, serving most major arterials around the state. However, the levels of intercity bus service are quite limited—multiple frequencies on a handful of corridors, a daily roundtrip at most on the remaining corridors, and roundtrip service just three times a week on some more rural corridors. Notable improvements for the unconstrained 2020 network will be two or more daily roundtrips on nearly every route, and five daily roundtrips on major corridors such as I-35, toward Duluth and Albert Lea, and I-94, toward St. Cloud. Both express and local services will also be provided on the major corridors to provide attractive travel times for passengers headed to the Twin Cities and other regional centers, as well as accessibility for passengers who reside near local stops.

COORDINATION WITH OTHER MODES

Intercity bus services complement the statewide transportation network by providing long-distance connections and additional mobility options for residents in urban and rural areas alike. Intercity bus passengers also benefit from connections to other modes for local access, once they arrive at their destination, but also to access intercity bus service to begin with. This section discusses opportunities for coordination between the proposed intercity bus services with other transportation

modes. Such coordination yields various benefits, streamlining transfers for passengers, providing improved access to information about different services, and potentially increasing productivity on local and intercity routes.

Local Transit

Local transit services highly influence the feasibility of using intercity bus, particularly for passengers that do not have access to a personal vehicle. Because intercity bus services typically stop only in larger towns on major highways and make only one stop per city or town, local transit services are an important option for passengers to connect to their final destination, especially if passengers cannot call anyone to pick them up or afford a taxi ride. Where local transit service exists in places under consideration for new intercity bus service, the local provider can run new feeder service to the closest existing intercity bus stop, or remain focused on local routes that will offer connections to the expanded intercity bus service. Feeder services are designed to link smaller towns or key destinations (such as a university) with an intercity bus stop where passengers can connect with the national intercity bus network. Under the FTA S.5311(f) program regulations, feeder services can be demand-responsive, and are not limited to any particular type of vehicle. Feeder services may or may not offer interline ticketing with the intercity bus network through the NBTA, though it is an advantage in that potential inbound passengers in other areas can be made aware of the existence of the service, and can buy a ticket to the final destination served by the feeder service.

If a local provider decides to operate new feeder service, the local provider may be eligible for the FTA's Pilot Project and utilize the value of capital used in connecting private unsubsidized service as an in-kind match for S.5311(f) operating funds. Based on the current unsubsidized intercity bus services, this scenario may apply to the proposed services to Virginia, Hibbing, and Grand Rapids. Arrowhead Transit provides route deviation and demand-response services in these communities and to Duluth. Arrowhead Transit could apply for S.5311(f) funding and potentially use the value of the capital cost of Greyhound's unsubsidized service between Duluth and Minneapolis as an in-kind match for the new feeder service. Hibbing Area Transit, which also offers route deviation and demand-response services, is another candidate for providing feeder service to Duluth.

Watonwan County's Take Me There system operates demand-response service that could potentially provide feeder service from New Ulm to Minneapolis via one of the proposed alternatives described above. Another candidate to provide the feeder service from New Ulm is the Brown County Heartland Express, which provides route deviation and demand response service. Both of these local systems could potentially use an in-kind match, provided by the currently unsubsidized intercity bus routes on

the I-35 corridor, heading south toward Iowa, or the I-94 corridor, heading east into Wisconsin, to provide the new feeder service.

Austin-Mower County Area Transit (AMCAT) provides local service in Austin and could potentially operate the proposed feeder services to Albert Lea or Rochester. However, only the Albert Lea service would be eligible for FTA's Pilot Project because existing intercity bus service on the I-35 South corridor is unsubsidized, whereas current service through Rochester is subsidized. Albert Lea Transit is another local provider that could operate the proposed service between Austin and Albert Lea, while Rochester City Lines is a local system that could run the proposed Austin to Rochester service. The size and capabilities of the local transit systems may influence their willingness to provide feeder services. In this instance, the Rochester system provides fixed-route services and is larger than the systems in Austin and Albert Lea. The alternative that is eventually implemented may depend on the willingness of the local providers and the local match they can provide or the in-kind match they can receive.

Hiawathaland Transit provides route deviation and demand-response service in Red Wing. This provider could potentially operate the proposed feeder service to Minneapolis via Hastings. Since the proposed service travels along a similar path as the Amtrak service from Red Wing to St. Paul, Hiawathaland Transit's local routes would be more important for enhancing the intercity bus service than connectivity with the Red Wing Amtrak station.

An important note about local providers potentially participating in FTA's Pilot Project is that the carriers for the unsubsidized service must agree to allow the local provider to utilize the value of the capital used on the connecting unsubsidized services as in-kind match. The carriers will likely require that the new feeder services provide meaningful connections to the unsubsidized intercity service. For the carrier providing the value of their unsubsidized miles as in-kind this translates into a connection at the existing intercity bus stop within two hours of the scheduled stop time. Carriers may also require local systems to sell and accept interline tickets, which allow passengers to purchase the fare for their entire trip that includes segments on the local system as well as the carrier's intercity bus service.

Intercity bus connections to local transit systems could be facilitated in a number of ways including connecting the local services and the feeder services at one transit stop or hub. Information on connecting times between intercity bus service and the feeder service or local transit service can also be promoted on the connecting systems' websites and marketing materials.

Intercity Passenger Rail Service

Minnesota is currently served by only one roundtrip daily on Amtrak's Empire Builder route, which runs from Chicago to St. Paul to Portland or Seattle. Given the existing intercity bus and Amtrak schedules, few feasible connections between intercity bus and rail exist.[6] In the short-term, new intercity bus trips could be added, particularly along major corridors, and scheduled to meet the existing Amtrak service. Future rail service, as outlined in the 2009 Minnesota Comprehensive Statewide Freight and Passenger Rail Plan, is planned to operate at 110 miles per hour (at its top speed) from Chicago to Minneapolis and St. Paul via Milwaukee and Madison. The Twin Cities will be served by six daily round trips when the system is fully implemented. Phase I of the plan also calls for frequent, fast passenger rail services from the Twin Cities to Duluth, Mankato, and Fargo/Moorhead, operating at speeds between 79 and 110 miles per hour.

Because the rail plan calls for incremental development, with opportunistic project development based on funding availability, it may be some time before the complete network is in place. Eventually passenger rail may be operating on several of the key bus corridors, but in the interim development of higher frequency bus services could be seen as a market development strategy. If rail passenger service is implemented in a corridor, the bus frequencies could be shifted to fill schedule gaps, and to serve towns without rail stops. Intercity bus services will provide important connections for residents in such communities to access high speed rail service. These connections may be provided at a future intermodal facility in St. Paul or at other rail service stops. With six daily rail round trips planned to serve Minneapolis-St. Paul in the future, implementing up to five daily intercity bus trips on major corridors to connect to the rail service will solidify the state's intermodal transportation network.

Air Travel

MSP is the largest multimodal terminal in the state and needs to be served by intercity bus. Currently MSP is served by three intercity bus roundtrips daily and an additional roundtrip over the weekend targeted toward college students in Duluth. A number of companies other than the intercity bus carriers provide services on a reservation basis between rural communities across the state and this airport. The market for these airport services is expected to grow, and with improved information

[6] The existing feasible connections toward Fargo, departing St. Paul at 11:15 p.m. daily, include Jefferson Lines 758 from Tomah to St. Paul, arriving at 7:00 p.m.; Jefferson Lines 759 from Milwaukee to the St. Paul Amtrak station, arriving at 7:20 p.m. daily; and Jefferson Lines 760 from Duluth to the St. Paul Amtrak station, arriving at 7:50 p.m. daily. The existing feasible connection toward Chicago, departing St. Paul at 7:50 a.m. daily, is Jefferson Lines 750 from Kansas City and Des Moines to St. Paul at 5:30 a.m. daily, though passengers may be unlikely to travel north en route to Chicago.

distribution, these airport carriers may find it beneficial to become integrated into the state transportation network.

In addition to the traditional airport providers, there is additional potential for scheduled intercity bus services to connect with airports. Services operated from smaller cities in New Hampshire (Lebanon, Concord, Manchester, Portsmouth) to Logan Airport in Boston have grown to provide extensive service to airport workers, and travelers. The services originate at high-quality, publicly-funded terminals and park and ride lots, with buses going to the airport, to Boston's intermodal station, and to downtown employment areas. This model could be considered for Minnesota, where buses could serve all of these markets with relatively low capital and operating costs. A key issue is funding, as S.5311(f) funds would not be adequate to build the terminals and parking, and a number of the logical markets are small urbanized areas. In New Hampshire the state has used Congestion Mitigation and Air Quality funding for the facilities, and in some cases for the buses as well. Minnesota could consider a similar approach.

Bike and Pedestrian

The main opportunities for intercity bus riders to connect to bike and pedestrian modes lie in the Twin Cities, as well as some of the larger cities around the state where transit buses are equipped with bike racks and other pedestrian and bike infrastructure is available. Both biking and walking are convenient modes to access intercity bus or complete trips where the distance between the intercity bus stop and the origin or destination is short, and sufficient infrastructure (sidewalks, bike lanes, etc.) is in place to make these modes feasible. Providers may even consider equipping intercity buses in the future with bike racks or permitting folding bicycles to be stored in luggage compartments.

PROJECTED COSTS OF RECOMMENDED NETWORKS

This section outlines the costs of the recommended services, which were developed using the current cost levels of likely providers. Most of the new services recommended in this plan are feeder services that connect currently unserved communities to existing intercity bus services. The cost per mile used to estimate the incremental costs of new feeder services was based on figures from Arrowhead Transit and approximates the costs that other local transit providers are likely to have if they operate the recommended feeder services.[7] These feeder cost estimates include all

[7] The cost per mile for Arrowhead Transit was calculated by dividing the agency's operating expenses by its revenue miles; this 2005 data was provided in Appendix D of the Greater Minnesota Transit Plan 2010-2030, and the cost per mile was rounded up to account for likely costs increase in the last few years.

operating costs, but not capital. Existing and future intercity bus services were also included in the network cost estimates, which used the most recent data available from Jefferson Lines to estimate the cost per mile.[8] The cost per mile for the intercity services are fully-allocated, and include vehicle capital. All costs are in current dollars.

The approximate costs of Minnesota's existing intercity bus network, including the current levels of service, are included in Table 5-1 to serve as a baseline against cost projections for new and improved services. The table also identifies the farebox recovery, the net operating deficit, and the S.5311(f) operating share of the existing services. These factors are also estimated for new and expanded services shown in the following tables.

Recommended Network in 2010

The costs associated with the intercity bus network recommended for 2010 are shown in Table 5-2. The main change for 2010 is the addition of one daily roundtrip that serves Virginia, Hibbing, and Grand Rapids. Both alternatives are included in the table, though only one will need to be implemented. The incremental costs associated with selecting either alternative are included at the bottom of the table. The option that connects this rural area directly to the Twin Cities costs about four times more than the feeder service to Duluth.

Network Development 2010-2020

The subsequent improvements to the 2010 network will add other new feeder services and increase the frequency of existing routes. Shown in Table 5-3, two alternatives each are included for the proposed services to New Ulm and Austin. The incremental costs given at the bottom of the table include the service to Virginia, Hibbing, and Grand Rapids. Though this service will hopefully have been implemented by this point, the associated costs are still included to portray the total cost for the improved network. While each proposed new service will start out at one roundtrip daily, the frequencies of most existing services are increased by one additional roundtrip per day.

The network options highlighted in blue and orange in Table 5-3 are meant to illustrate potential sets of improvements. When actually implemented, the network may be a "mix and match" of proposed options for the new service areas. Note that only one alternative is given for the Red Wing service to Minneapolis, and this service is therefore included in both network options.

[8] Jefferson Lines' cost per mile represents May 2008 data, as reported in the S.5311(f) invoice to Mn/DOT. While the reported number was $3.44, an adjusted number of $3.50 was used as an approximation that accounts for cost increases in the past year.

Table 5-1: Estimated Costs of Existing Intercity Bus Network

		Level of Service - Existing													
Corridor	Cities	Existing Service	One-Way Miles	Existing ICB Level of Service[1]	Number of Roundtrips Per Day	Daily Miles	Days of Service	Annual Miles	Cost per Mile	Annual Operating Cost	FB Recovery (Based on varying percentages)	FB Recovery Percentage[2]	Net Oper. Deficit	Projected 5311(f) Operating Share (at 50%)	Federal Share with In-kind Match (at 100%)
I-35	Twin Cities-Duluth	yes	156	16	2.3	713.1	365	260,000	$3.50	$910,000	$800,800	88%	$109,200	$55,000	$109,200
I-35	Twin Cities-toward Des Moines (ends at state line)	yes	119	21	3.0	714.0	365	261,000	$3.50	$913,500	$913,500	100%	$0	$0	$0
US-52 to I-90	Twin Cities-Winona-toward Tomah (ends at state line)	yes	172	7	1.0	344.0	365	126,000	$3.50	$441,000	$238,140	54%	$202,860	$101,000	$202,860
I-94	Twin Cities-toward Eau Claire (ends at state line)	yes	28	67	9.6	536.0	365	196,000	$3.50	$686,000	$686,000	100%	$0	$0	$0
I-94	Minneapolis-St. Cloud	yes	67	25	3.6	478.6	365	175,000	$3.50	$612,500	$465,500	76%	$147,000	$74,000	$147,000
MN-23	St. Cloud-toward Sioux Falls (ends at state line)	yes	212	4	0.6	242.3	365	88,000	$3.50	$308,000	$98,560	32%	$209,440	$105,000	$209,440
I-94	St. Could-Alexandria-Fergus Falls-Fargo	yes	177	14	2.0	708.0	365	258,000	$3.50	$903,000	$451,500	50%	$451,500	$226,000	$451,500
US-10 and MN-371	St. Cloud-Brainerd-Wadena	yes	110	7	1.0	220.0	365	80,000	$3.50	$280,000	$212,800	76%	$67,200	$34,000	$67,200
US-10	Wadena-Detroit Lakes-Fargo	yes	93	7	1.0	186.0	365	68,000	$3.50	$238,000	$173,740	73%	$64,260	$32,000	$64,260
US-71 and US-2	Wadena-Walker-Bemidji-Grand Forks	yes	216	3	0.4	185.1	365	68,000	$3.50	$238,000	$123,760	52%	$114,240	$57,000	$114,240
US-169 to I-90	Minneapolis-toward Sioux Falls (ends at state line)	yes	236	7	1.0	472.0	365	172,000	$3.50	$602,000	$433,440	72%	$168,560	$84,000	$168,560
	Total Existing ICB Service									$6,132,000	$4,597,740		$1,534,260	$768,000	$1,534,260

[1] Existing levels of service (LOS) given in weekly roundtrips. Number of roundtrips per day "calculated" using LOS, divided by 7 days per week.

[2] The farebox recovery for new proposed options was estimated at 20%, while the farebox recovery for existing services was based on 2007 averages from Jefferson Lines (see Table 1-2 in Chapter 1). Where this data was not available for 3 existing corridors, the farebox recovery was designated as 50%--approximately the average for the current S.5311(f) routes.

Table 5-2: Estimated Costs of Recommended Network in 2010

		Level of Service - Near Term													
Corridor	**Cities**	**Existing Service**	**One-Way Miles**	**ICB Level of Service[1]**	**Proposed # Roundtrips Per Day**	**Daily Miles**	**Days of Service**	**Annual Miles**	**Cost per Mile**	**Annual Operating Cost**	**FB Recovery (Based on varying percentages)**	**FB Recovery Percentage[2]**	**Net Operating Deficit**	**Projected 5311(f) Operating Share (at 50%)**	**Federal Share with In-kind Match (at 100%)**
Alternative A1															
US-169 to US-53	Grand Rapids-Hibbing-Virginia-Duluth	no	123	n/a	1	123	365	45,000	$2.50	$112,500	$22,500	20%	$90,000	$45,000	$90,000
Alternative A2															
US-169	Virginia-Hibbing-Grand Rapids-Minneapolis	no	238	n/a	1	476	365	174,000	$2.50	$435,000	$87,000	20%	$348,000	$174,000	$348,000
I-35	Twin Cities-Duluth	yes	156	16	2.3	713.1	365	260,000	$3.50	$910,000	$800,800	88%	$109,200	$55,000	$109,200
I-35	Twin Cities-toward Des Moines (ends at state line)	yes	119	21	3.0	714.0	365	261,000	$3.50	$913,500	$913,500	100%	$0	$0	$0
US-52 to I-90	Twin Cities-Winona-toward Tomah (ends at state line)	yes	172	7	1.0	344.0	365	126,000	$3.50	$441,000	$238,140	54%	$202,860	$101,000	$202,860
I-94	Twin Cities-toward Eau Claire (ends at state line)	yes	28	67	9.6	536.0	365	196,000	$3.50	$686,000	$686,000	100%	$0	$0	$0
I-94	Minneapolis-St. Cloud	yes	67	25	3.6	478.6	365	175,000	$3.50	$612,500	$465,500	76%	$147,000	$74,000	$147,000
MN-23	St. Cloud-toward Sioux Falls (ends at state line)	yes	212	4	0.6	242.3	365	88,000	$3.50	$308,000	$98,560	32%	$209,440	$105,000	$209,440
I-94	St. Cloud-Alexandria-Fergus Falls-Fargo	yes	177	14	2.0	708.0	365	258,000	$3.50	$903,000	$451,500	50%	$451,500	$226,000	$451,500
US-10 and MN-371	St. Cloud-Brainerd-Wadena	yes	110	7	1.0	220.0	365	80,000	$3.50	$280,000	$212,800	76%	$67,200	$34,000	$67,200
US-10	Wadena-Detroit Lakes-Fargo	yes	93	7	1.0	186.0	365	68,000	$3.50	$238,000	$173,740	73%	$64,260	$32,000	$64,260
US-71 and US-2	Wadena-Walker-Bemidji-Grand Forks	yes	216	3	0.4	185.1	365	68,000	$3.50	$238,000	$123,760	52%	$114,240	$57,000	$114,240
US-169 to I-90	Minneapolis-toward Sioux Falls (ends at state line)	yes	236	7	1.0	472.0	365	172,000	$3.50	$602,000	$433,440	72%	$168,560	$84,000	$168,560
	Total Existing ICB Service									$6,132,000	$4,597,740		$1,534,260	$768,000	$1,534,260
Incremental Cost for Menu Option 1 (Alternatives highlighted in blue)										**$112,500**	**$22,500**		**$90,000**	**$45,000**	**$90,000**
	Total Cost for Entire Network-Option 1									**$6,244,500**	**$4,620,240**		**$1,624,260**	**$813,000**	**$1,624,260**
Incremental Cost for Menu Option 2 (Alternatives highlighted in orange)										**$435,000**	**$87,000**		**$348,000**	**$174,000**	**$348,000**
	Total Cost for Entire Network-Option 2									**$6,567,000**	**$4,684,740**		**$1,882,260**	**$942,000**	**$1,882,260**

[1] Existing or proposed levels of service (LOS) given in weekly roundtrips. Number of roundtrips per day assigned for the new service options, and "calculated" using LOS, divided by 7 days per week, for the existing services.

[2] The farebox recovery for new proposed options was estimated at 20%, while the farebox recovery for existing services was based on 2007 averages from Jefferson Lines (see Table 1-2 in Chapter 1). Where this data was not available for 3 existing corridors, the farebox recovery was designated as 50%--approximately the average for the current S.5311(f) routes.

Table 5-3: Estimated Costs of Network Development 2010-2020

		Level of Service - Near Term													
Corridor	Cities	Existing Service	One-Way Miles	ICB Level of Service[1]	Proposed # Roundtrips Per Day	Daily Miles	Days of Service	Annual Miles	Cost per Mile	Annual Operating Cost	FB Recovery (Based on varying percentages)	FB Recovery Percentage[2]	Net Operating Deficit	Projected 5311(f) Operating Share (at 50%)	Federal Share with In-kind Match (at 100%)
Alternative A1															
US-169 to US-53	Grand Rapids-Hibbing-Virginia-Duluth	no	123	n/a	1	123	365	45,000	$2.50	$112,500	$22,500	20%	$90,000	$45,000	$90,000
Alternative A2															
US-169	Virginia-Hibbing-Grand Rapids-Minneapolis	no	238	n/a	1	476	365	174,000	$2.50	$435,000	$87,000	20%	$348,000	$174,000	$348,000
Alternative B1															
MN-15 to US-12	New Ulm-Hutchinson-Delano-Minneapolis	no	112	n/a	1	224	365	82,000	$2.50	$205,000	$41,000	20%	$164,000	$82,000	$164,000
Alternative B2															
US-50	New Ulm-Glencoe-Minneapolis (more direct)	no	97	n/a	1	194	365	71,000	$2.50	$177,500	$35,500	20%	$142,000	$71,000	$142,000
Alternative C1															
I-90	Austin-Albert Lea	no	23	n/a	1	46	365	17,000	$2.50	$42,500	$8,500	20%	$34,000	$17,000	$34,000
Alternative C2															
I-90 to US-63	Austin-Rochester	no	42	n/a	1	84	365	31,000	$2.50	$77,500	$15,500	20%	$62,000	$31,000	$62,000
Alternative D															
US-61 to I-94	Red Wing-Hastings-Minneapolis	no	55	n/a	1	110	365	40,000	$2.50	$100,000	$20,000	20%	$80,000	$40,000	$80,000
I-35	Twin Cities-Duluth	yes	156	16	3.0	936.0	365	342,000	$3.50	$1,197,000	$1,053,360	88%	$143,640	$72,000	$143,640
I-35	Twin Cities-toward Des Moines (ends at state line)	yes	119	21	4.0	952.0	365	347,000	$3.50	$1,214,500	$1,214,500	100%	$0	$0	$0
US-52 to I-90	Twin Cities-Winona-toward Tomah (ends at state line)	yes	172	7	2.0	688.0	365	251,000	$3.50	$878,500	$474,390	54%	$404,110	$202,000	$404,110
I-94	Twin Cities-toward Eau Claire (ends at state line)	yes	28	67	12.0	672.0	365	245,000	$3.50	$857,500	$857,500	100%	$0	$0	$0
I-94	Minneapolis-St. Cloud	yes	67	25	4.0	536.0	365	196,000	$3.50	$686,000	$521,360	76%	$164,640	$82,000	$164,640
MN-23	St. Cloud-toward Sioux Falls (ends at state line)	yes	212	4	2.0	848.0	365	310,000	$3.50	$1,085,000	$347,200	32%	$737,800	$369,000	$737,800
I-94	St. Cloud-Alexandria-Fergus Falls-Fargo	yes	177	14	3.0	1062.0	365	388,000	$3.50	$1,358,000	$679,000	50%	$679,000	$340,000	$679,000
US-10 and MN-371	St. Cloud-Brainerd-Wadena	yes	110	7	2.0	440.0	365	161,000	$3.50	$563,500	$428,260	76%	$135,240	$68,000	$135,240
US-10	Wadena-Detroit Lakes-Fargo	yes	93	7	2.0	372.0	365	136,000	$3.50	$476,000	$347,480	73%	$128,520	$64,000	$128,520
US-71 and US-2	Wadena-Walker-Bemidji-Grand Forks	yes	216	3	1.0	432.0	365	158,000	$3.50	$553,000	$287,560	52%	$265,440	$133,000	$265,440
US-169 to I-90	Minneapolis-toward Sioux Falls (ends at state line)	yes	236	7	2.0	944.0	365	345,000	$3.50	$1,207,500	$869,400	72%	$338,100	$169,000	$338,100
	Total Existing ICB Services with Expanded Frequency									**$10,076,500**	**$7,080,010**		**$2,996,490**	**$1,499,000**	**$2,996,490**
Incremental Cost for Menu Option 1 (Alternatives highlighted in blue)										**$460,000**	**$92,000**		**$368,000**	**$184,000**	**$368,000**
	Total Cost for Entire Network-Option 1									**$10,536,500**	**$7,172,010**		**$3,364,490**	**$1,683,000**	**$3,364,490**
Incremental Cost for Menu Option 2 (Alternatives highlighted in orange)										**$790,000**	**$158,000**		**$632,000**	**$316,000**	**$632,000**
	Total Cost for Entire Network-Option 2									**$10,866,500**	**$7,238,010**		**$3,628,490**	**$1,815,000**	**$3,628,490**

Note: Alternative D is included in both Menu Options 1 and 2.

[1] Existing or proposed levels of service (LOS) given in weekly roundtrips.

[2] The farebox recovery for new proposed options was estimated at 20%, while the farebox recovery for existing services was based on 2007 averages from Jefferson Lines (see Table 1-2 in Chapter 1). Where this data was not available for 3 existing corridors, the farebox recovery was designated as 50%--approximately the average for the current S.5311(f) routes.

Table 5-4 provides a summary of the potential alternatives that may be implemented from 2010 to 2020. This table indicates the geographic coverage and recommended time frame for implementation for the alternatives. See Tables 5-2, 5-3, and Table 5-5 for the recommended frequencies of potential alternatives per phase.

Table 5-4: Summary of Potential Alternatives

Alternatives	Cities Served	Recommended Time Frame for Implementation
A1	Grand Rapids-Hibbing-Virginia-Duluth	2010
A2	Virginia-Hibbing-Grand Rapids-Minneapolis	2010
B1	New Ulm-Hutchinson-Delano-Minneapolis	2010-2020
B2	New Ulm-Glencoe-Minneapolis	2010-2020
C1	Austin-Albert Lea	2010-2020
C2	Austin-Rochester	2010-2020
D	Red Wing-Hastings-Minneapolis	2010-2020

Recommended Network in 2020

The network recommended for 2020 builds upon the last phase with notable increases in service frequencies, mostly along existing intercity bus corridors. The most heavily traveled corridors, I-35 north to Duluth and south to Albert Lea, and northwest from Minneapolis to St. Cloud (which continues on to few different destinations), have five roundtrips daily. Most other services, including the proposed services to New Ulm, Austin, and Red Wing, have also increased by at least one roundtrip per day. Estimated costs for these improvements are included in Table 5-5. To the extent that these corridors are subsequently served by intercity passenger rail, the bus development can build the market, and then transition to be part of the integrated corridor service, either feeding the rail corridor or filling out the schedules.

The intercity bus network recommended for 2020 provides a high level of service for residents in Greater Minnesota to access the Twin Cities and other regional trade centers. Higher frequencies among the routes, particularly the major corridors, will better serve the range of intercity travel needs including day trips to the Twin Cities, airport connections to MSP, and weekend travel. The new feeder services not only expand access to intercity bus services for more residents in rural areas, but also provide options for urban residents looking to visit these communities for social and recreational purposes.

Table 5-5: Estimated Costs of Recommended Network in 2020

		Level of Service - Long Term													
Corridor	Cities	Existing Service	One-Way Miles	ICB Level of Service[1]	Proposed # Roundtrips Per Day	Daily Miles	Days of Service	Annual Miles	Cost per Mile	Annual Operating Cost	FB Recovery (Based on varying percentages)	FB Recovery Percentage[2]	Net Oper. Deficit	Projected 5311(f) Operating Share (at 50%)	Federal Share with In-kind Match (at 100%)
Alternative A1															
US-169 to US-53	Grand Rapids-Hibbing-Virginia-Duluth	no	123	n/a	2	246	365	90,000	$2.50	$225,000	$45,000	20%	$180,000	$90,000	$180,000
Alternative A2															
US-169	Virginia-Hibbing-Grand Rapids-Minneapolis	no	238	n/a	2	952	365	347,000	$2.50	$867,500	$173,500	20%	$694,000	$347,000	$694,000
Alternative B1															
MN-15 to US-12	New Ulm-Hutchinson-Delano-Minneapolis	no	112	n/a	2	448	365	164,000	$2.50	$410,000	$82,000	20%	$328,000	$164,000	$328,000
Alternative B2															
US-50	New Ulm-Glencoe-Minneapolis (more direct)	no	97	n/a	2	388	365	142,000	$2.50	$355,000	$71,000	20%	$284,000	$142,000	$284,000
Alternative C1															
I-90	Austin-Albert Lea	no	23	n/a	2	92	365	34,000	$2.50	$85,000	$17,000	20%	$68,000	$34,000	$68,000
Alternative C2															
I-90 to US-63	Austin-Rochester	no	42	n/a	2	168	365	61,000	$2.50	$152,500	$30,500	20%	$122,000	$61,000	$122,000
Alternative D															
US-61 to I-94	Red Wing-Hastings-Minneapolis	no	55	n/a	2	220	365	80,000	$2.50	$200,000	$40,000	20%	$160,000	$80,000	$160,000
I-35	Twin Cities-Duluth	yes	156	16	5.0	1560.0	365	569,000	$3.50	$1,991,500	$1,752,520	88%	$238,980	$119,000	$238,980
I-35	Twin Cities-toward Des Moines (ends at state line)	yes	119	21	5.0	1190.0	365	434,000	$3.50	$1,519,000	$1,519,000	100%	$0	$0	$0
US-52 to I-90	Twin Cities-Winona-toward Tomah (ends at state line)	yes	172	7	3.0	1032.0	365	377,000	$3.50	$1,319,500	$712,530	54%	$606,970	$303,000	$606,970
I-94	Twin Cities-toward Eau Claire (ends at state line)	yes	28	67	14.0	784.0	365	286,000	$3.50	$1,001,000	$1,001,000	100%	$0	$0	$0
I-94	Minneapolis-St. Cloud	yes	67	25	5.0	670.0	365	245,000	$3.50	$857,500	$651,700	76%	$205,800	$103,000	$205,800
MN-23	St. Cloud-toward Sioux Falls (ends at state line)	yes	212	4	2.0	848.0	365	310,000	$3.50	$1,085,000	$347,200	32%	$737,800	$369,000	$737,800
I-94	St. Cloud-Alexandria-Fergus Falls-Fargo	yes	177	14	3.0	1062.0	365	388,000	$3.50	$1,358,000	$679,000	50%	$679,000	$340,000	$679,000
US-10 and MN-371	St. Cloud-Brainerd-Wadena	yes	110	7	2.0	440.0	365	161,000	$3.50	$563,500	$428,260	76%	$135,240	$68,000	$135,240
US-10	Wadena-Detroit Lakes-Fargo	yes	93	7	2.0	372.0	365	136,000	$3.50	$476,000	$347,480	73%	$128,520	$64,000	$128,520
US-71 and US-2	Wadena-Walker-Bemidji-Grand Forks	yes	216	3	1.0	432.0	365	158,000	$3.50	$553,000	$287,560	52%	$265,440	$133,000	$265,440
US-169 to I-90	Minneapolis-toward Sioux Falls (ends at state line)	yes	236	7	2.0	944.0	365	345,000	$3.50	$1,207,500	$869,400	72%	$338,100	$169,000	$338,100
	Total Existing ICB Service with Expanded Frequency									**$11,931,500**	**$8,595,650**		**$3,335,850**	**$1,668,000**	**$3,335,850**
Incremental Cost for Menu Option 1 (Alternatives highlighted in blue)										**$920,000**	**$184,000**		**$736,000**	**$368,000**	**$736,000**
	Total Cost for Entire Network-Option 1									**$12,851,500**	**$8,779,650**		**$4,071,850**	**$2,036,000**	**$4,071,850**
Incremental Cost for Menu Option 2 (Alternatives highlighted in orange)										**$1,575,000**	**$315,000**		**$1,260,000**	**$630,000**	**$1,260,000**
	Total Cost for Entire Network-Option 2									**$13,506,500**	**$8,910,650**		**$4,595,850**	**$2,298,000**	**$4,595,850**

Note: Alternative D is included in both Menu Options 1 and 2.

[1] Existing or proposed levels of service (LOS) given in weekly roundtrips. Number of roundtrips per day "calculated" using LOS, divided by 7 days per week.

[2] The farebox recovery for new proposed options was estimated at 20%, while the farebox recovery for existing services was based on 2007 averages from Jefferson Lines (see Table 1-2 in Chapter 1). Where this data was not available for 3 existing corridors, the farebox recovery was designated as 50%--approximately the average for the current 5311(f) routes.

Comparison of Total Costs by Service Level

Table 5-6 portrays the total costs, including existing services and added services and frequencies, for both network Options 1 and 2 at sequential service levels. At this point in time, it is difficult to predict the likely fare revenue for new services or higher service levels. Intercity bus demand has historically been sensitive to fare levels, as the mode has positioned itself as the low-cost mode. In part this has been a necessity because of the difficulty it has in providing travel times that are comparable to the private auto, given that it uses the same highways and also makes intermediate stops. However, the recent growth in intercity bus ridership has taken place on some limited stop express services that also offer low fares (or perceived low fares, with some seats offered well in advance at very low prices) such as Bolt (on the East Coast) and Megabus. Demand is likely also affected by gas prices. If real gas prices rise over the period, it is likely that demand for intercity bus services would rise, and the need for subsidy to operate these services would decline.

Table 5-6: Comparison of Total Costs by Service Level

	Estimated Annual Operating Cost			
	Existing Network	**Recommended 2010 Network**	**Network Development 2010-2020**	**Recommended 2020 Network**
Existing Intercity Bus Services	$6,132,000	$6,132,000	$10,076,500	$11,931,500
Proposed Network-Option 1		$112,500	$460,000	$920,000
Proposed Network-Option 2		$435,000	$790,000	$1,575,000
Total with Option 1		$6,244,500	$10,536,500	$12,851,500
Total with Option 2		$6,567,000	$10,866,500	$13,506,500

Note: The costs estimated for the proposed networks, Options 1 and 2, represent incremental costs from the existing network.

The estimates provided here are intended to make the point that enhanced, state-wide intercity bus service to both urban and rural points could be provided at these cost levels (in current dollars). It should be noted that some states do not limit their intercity bus programs to the existing S.5311(f) program apportionment, but provide additional state funding, either for match, or for separate state programs. New York State has an extensive Upstate formula bus program, which provides operating assistance to bus companies running intercity service at a formula rate of so much per mile and so much per passenger boarding. The program envisioned here would require a similar state initiative, or would develop in response to increased gasoline prices and other disincentives to auto use (for example taxes related to the need to reduce greenhouse gas emissions, or parking restrictions in the urban areas). One potential scenario is that auto use disincentives would provide funding for improved intercity and local public transportation, such as the network proposed in this report.

ALTERNATIVE FUNDING POLICIES

Along with the recommended networks there is a need to identify funding policies that could provide the resources needed to implement the network service levels identified in the previous section. Four funding scenarios match the network options:

- **Scenario 1**: Current S.5311(f) funding levels continue—growth under SAFETEA-LU levels off to inflation growth, no state match.

- **Scenario 2**: Current S.5311(f) federal funding (as in 1), but other matching funding is provided for a portion of local operating match, local capital match.

- **Scenario 3**: As previous, but other matching funds provide all local match for intercity projects.

- **Scenario 4**: Financially unconstrained long-term future—higher subsidy levels from sources not as yet identified revenues (from cap and trade emissions taxes or auto disincentives? As part of a federal surface program that includes high-speed rail and enhance intercity bus? Under new federal or state programs?)

Each of these will be addressed in turn.

Scenario 1: Current S.5311(f) Funding Levels

Currently the Mn/DOT S.5311(f) program is able to fund operating assistance, capital maintenance, and marketing for a basic statewide network that provides coverage to most of the state. The needs analysis revealed that there are additional locations that could warrant the investment in intercity bus connections. Since the existing annual allocation (15% of the State's overall S.5311 allocation) is not fully utilized, there may be an opportunity to use the funding to provide the additional services identified in the needs analysis.

However, the amount of operating assistance that can be used is constrained, not by federal funding availability or by Mn/DOT, but by the ability of the applicant private companies to provide the 50% share of the net operating deficit as local match. Jefferson Lines, the operator of all the routes in the current program, is willing to provide this match because of the potential revenue from feed traffic these routes provide to its other unsubsidized routes, and most likely because the firm also sees its role as part of the greater Minnesota community as a provider of rural bus service.

Other private for-profit firms have not been willing to provide this match, and may be unlikely to do so in the future. Few firms have a regional or national network that would benefit from the feed traffic, and in the absence of such a benefit, would have a hard time justifying a loss on every mile operated under the program. So the amount of service operated is in effect limited by the amount of funding that Jefferson is willing to provide as match, rather than by the federal allocation. This restricts service expansion in terms of coverage, and it may restrict frequencies.

This raises two concerns regarding funding policies. One is whether there are ways to utilize the available funding to better support the current network, or the current network with limited expansions to high need areas—and do it without the need for additional state or local funding. The second is whether or not a change in policy linked to additional non-federal, non-carrier funding could allow for more expanded services that would provide for higher frequencies, and additional coverage.

With regard to the current federal funding, one alternative would be to allow use of the funding for vehicle capital for use on the funded routes. Currently the net operating deficit is calculated by multiplying the route miles operated times the fully-allocated cost per mile for the carrier, net the revenues on that route.

Fully-allocated costs include equipment depreciation—basically the capital cost of the vehicles used. The revenue on a route is then subtracted from the operating cost to determine the net operating deficit, and half of that is covered by S.5311(f) funds. Depending on the original cost of the vehicles used, their current age, and the depreciation schedule, the capital cost of the vehicles can represent 15% to 25% of the fully-allocated operating cost. Given that federal funds can be used for 80% of the capital cost of new vehicles (100% under the American Recovery and Reinvestment Act of 2009), supplying the vehicles under these programs could reduce the per-mile cost by that percentage, reducing the required carrier match by half that percentage. It would also improve the service quality, user perceptions, and reduce maintenance costs. If Jefferson Lines has a fixed-budget for local match, it could allow for some limited service expansion (which would of course add to the operating funding requirements of the program). This change in policy could be made by Mn/DOT.

Example of Impact on Operating Deficit of Providing Vehicle Capital:

Scenario A: Hypothetical Intercity Route with Vehicles Provided by Carrier

- Annual Bus-Miles: Route A: 304 miles per day, 365 days per year = 110,960 bus-miles
- Total Annual Operating Cost: Annual Bus-Miles times Cost per Mile
  - Annual Bus-Miles: 110,960
  - Fully-Allocated Cost per Bus-Mile: $3.50 (includes vehicles, stations, drivers, fuel, etc.—all costs)
  - Annual Operating Cost: $3.50 x 110, 960 = $388,360
- Total Annual Operating Revenue: Revenue per Mile times Annual Bus-Miles
  - Annual Bus-Miles: 110,960
  - Revenue per Bus-Mile: $2.10
  - Annual Revenue: $2.10 x 110,960 = $233,016
- Annual Operating Deficit: Total Operating Costs Less Passenger (and other) Revenue
  - Total Annual Operating Costs: $388,360
  - Total Annual Revenue: $233,016
  - Annual Operating Deficit: $155,344
  - Federal Share (at 50%): $77,672

Scenario B: Vehicle Capital Provided by Program

- Annual Bus-Miles: Route A: 304 miles per day, 365 days per year = 110,960 bus-miles
- Total Annual Operating Cost: Annual Bus-Miles times Cost per Mile
  - Annual Bus-Miles: 110,960
  - Fully-Allocated Cost per Bus-Mile: $2.63 (reduced by 25% because cost of vehicle not included)
  - Annual Operating Cost: $2.63 x 110, 960 = $291,825
- Total Annual Operating Revenue: Revenue per Mile times Annual Bus-Miles
  - Annual Bus-Miles: 110,960
  - Revenue per Bus-Mile: $2.10
  - Annual Revenue: $2.10 x 110,960 = $233,016
- Annual Operating Deficit: Total Operating Costs Less Passenger (and other) Revenue
  - Total Annual Operating Costs: $291,825
  - Total Annual Revenue: $233,016
  - Annual Operating Deficit: $58,809
  - Federal Share (at 50%): $29,405

DIFFERENCE IN REQUIRED FEDERAL (OR LOCAL) SHARE: $48,267, OR A 62% REDUCTION

Scenario 2: Limited Additional Funding

A second scenario would involve developing additional funding to provide a portion of the local match from sources other than the carrier or applicant. Some states provide state transit funding for a portion of the local match, allowing the available S. 5311(f) funding to stretch further. Pennsylvania provides 25% of the net deficit from state funds in its program, requiring the carrier or applicant to provide the other 25%. While it is recognized that existing state transit funds in Minnesota are fully-utilized, typically it is state funding that is provided for local match for intercity bus service. These services cover multiple jurisdictions, and historically it was state regulation that maintained the system of cross-subsidies that supported rural intercity services—hence a continuing state role in supporting them.

The level of resources required for this alternative would depend on the portion of the S.5311(f) program that is used for operating or capital projects, and the percentage of the local match that would be covered by these additional funds. Table 5-7 illustrates a hypothetical example of this funding scenario. In FY 2008, Jefferson Lines had to provide approximately $400,000 for the required local match, or 50% of the net operating deficit to receive S.5311(f) operating funds. If additional funding was provided as a portion of the local match (i.e., 50% of the local match, or 25% of the net operating deficit), then Jefferson Lines would only need to provide $200,000 per year for the local match to operate the current services funded through S.5311(f); then Jefferson Lines could theoretically use the remaining $200,000 to expand existing services or develop new service.

The additional funding provided under this scenario could go toward implementing enhanced intercity bus serving the additional locations identified as "high need" earlier in this report and/or providing some additional frequencies on major routes.

Scenario 3: Full Match

A scenario in which the full local match is provided from non-federal, non-carrier resources provides additional funding for expanded service. An example of this kind of program is the recent legislation in Wisconsin to provide the full non-federal operating share from state funds. This allows for more participation by smaller carriers deterred by the need to provide local match, and for carriers that have been providing match, there are additional funds that would allow more service. Under this scenario there is essentially no need to consider use of the FTA Pilot Project funding, which uses federal funds at a higher rate. This would also allow the federal funds to cover more service. Again, this scenario could not be provided out of an existing program, and if it involved state funding, it would require legislative action to provide more state transit funding. The amount required would vary depending on the amount of operating

Table 5-7: Scenario Two: Limited Additional Funding Example

Current Funding and Match: $1.8 million available in S.5311(f) funding

	Federal Share:		Local Share:						
	Percentage	**Amount**	**Percentage**	**Total Local Amount**	**Carrier Percentage**	**Carrier Amount**	**Additional Percentage**	**Additional Amount**	**Total Program**
Operating	50%	$900,000	50%	$900,000	50%	$900,000	0	$0	$1,800,000
Capital	80%	$900,000	20%	$180,000	20%	$180,000	0	$0	$1,080,000
	Total:	$1,800,000	**Total:**	$1,080,000		$1,080,000		$0	$2,880,000

Limited Additional Funding: $1.8 million available in S.5311(f) Funding

	Federal Share:		Local Share:						
	Percentage	**Amount**	**Percentage**	**Total Local Amount**	**Carrier Percentage**	**Carrier Amount**	**Additional Percentage**	**Additional Amount**	**Total Program**
Operating	50%	$900,000	50%	$900,000	25%	$450,000	25%	$450,000	$1,800,000
Capital	80%	$900,000	20%	$180,000	10%	$90,000	10%	$90,000	$1,080,000
	Total:	$1,800,000	Total:	$1,080,000		$540,000		$540,000	$2,880,000

assistance as compared to the capital program. At most, it would be an amount equal to the S.5311(f) allocation; if all of the federal funds were used to cover half the net deficit, it would be approximately $1.8 million per year.

Scenario 4: Non-Federal Funding Beyond Required Match

The previous three scenarios have all described situations in which the federal S.5311(f) program is the basis for the program—including its requirements for rural service, and for a meaningful connection with the national intercity bus service network (as opposed to rail or air service). This scenario is intended to reflect a situation in which Minnesota seeks to provide additional intercity services that do not meet the S.5311(f) requirements: additional frequencies between Urbanized Areas, or connections to air or intercity rail services. A network of this type was presented earlier (recommended Network in 2020), based on assumptions that the major corridors in the current network would be the basis for a future network, but it would have additional frequencies that offered express service between larger points; and the network might provide connections to other modes, such as proposed high speed rail service. The actual operators of the services could well be the existing bus companies or airport service providers, utilizing the funding through contracts.

There is some precedent elsewhere for such programs. New York uses state funds to subsidize a statewide intercity network, providing funds to carriers operating routes between both rural points and major towns on a formula basis (so much per bus-mile, plus so much per passenger-mile). California's state rail passenger program funds an extensive network of dedicated bus services that connect areas lacking railroad tracks or rail passenger densities with the state's rail network, connecting at railroad or intermodal stations. This provides an integrated network. In California, there is an extensive statewide rail network, and this feeder bus network includes approximately 20 routes, scheduled to connect with trains only. All passengers must have a ticket that includes a rail portion as well as a bus trip. In Federal Fiscal Year 2005 this network carried 641,789 bus passengers. None of this service is funded with Section 5311(f) funds, as it provides a meaningful connection only to the rail services and many of the stops served are not rural.

The recommended network in 2020 is also unconstrained by the S.5311(f) program requirements, and is essentially based on a professional judgment regarding the impact of frequency improvements, and the likely corridors. It is intended more to illustrate what an improved service of this type might cost, rather than as a detailed service plan or programming document. The net operating deficit identified in Table 5-5, ranging from $4.1 to $4.6 million (in current dollars) between the two network options, suggests that improved bus service could be a part of future plans for improved passenger service in Minnesota, offering a cost-effective investment that could serve areas in which rail passenger service is not feasible, and providing intercity

connections to all modes. The bus does not offer the speed advantage of high-speed rail, but in many situations the ability to offer express services and higher frequencies can make it an attractive alternative, as can be seen in the increase of express services on the East Coast.

RECOMMENDED NETWORK FUNDING STRATEGY

At this point in time, economic conditions do not allow the state to increase state funding for this program, so in the near-term the recommended funding strategy is continued full utilization of the S.5311(f) allocation to support the 2010 network, while depending on the continued ability and will of the applicant carriers to provide the local operating and capital match. Although Mn/DOT does provide state funding for the local public transit provided in Greater Minnesota in addition to the S.5311 funding, none of that funding is provided for rural intercity services. To avoid any potential reductions in vital local rural public transportation services that would result from reallocating existing state transit funding, future consideration of additional state funds for rural intercity service would have to involve additional state investment beyond the current program.

While this is unlikely in the near-term, it should be considered in the medium- and long-term future. Initially the focus should be on sufficient funding to provide a portion of the local operating match for the S.5311(f) program (at least 25% of the net deficit if not all of it), and a portion of the capital match as well (perhaps 10% of the total capital cost). In a worst-case scenario, if the entire Minnesota S.5311(f) allocation was required to provide operating assistance, the cost of providing the full local match would equal the federal allocation, approximately $1.8 million under current funding formulas. The cost of providing half the local match would be half that amount. As transportation projects go, this is not a large amount of funding to maintain the only statewide network linking Greater Minnesota with the Twin Cities.

Working toward this policy goal is sensible because of the risk that the state could lose a major portion of its statewide rural intercity network if there were no carriers willing to provide the (50%) local match. Experience across the country suggests that the current situation in Minnesota, in which a private firm does provide this match for a number of routes, is not replicated elsewhere. There are cases in which private carriers do provide 25% of the match (Pennsylvania), and there are more cases in which the FTA Pilot Project is being used to fund 100% of the net operating deficit with federal funds. In addition, it is likely that requiring a carrier to provide 50% of the net deficit discourages other carriers from applying to provide S.5311(f) funded services, particularly small firms that do not have the ability to consider such losses as the price to feed traffic to their profitable trunk routes.

Providing funding toward the local operating match would allow the carriers to expand service, though it is not possible to say how much. Currently Jefferson Lines is providing approximately $900,000 per year in local operating match. It stands to reason that if this loss was reduced by $450,000 (if the carrier match was reduced to 25% of the net deficit), some of that savings would be used to improve profitability. But given the additional funding availability, it is likely that Jefferson Lines (or other applicant firms) could provide more service, either new routes or additional frequencies.

Finally, the 2020 network and its "unconstrained" funding scenario suggests that a program that goes beyond the S.5311(f) program to include improved services between urbanized areas in the state is not excessively costly, and could well be considered as part of a statewide investment in improved public transportation. The cost of improved bus service is much less than the capital and operating costs of intercity rail passenger service, and it should be considered with rail investments as a potential alternative, complement, or feeder network as the state looks at the future of passenger travel.

APPENDIX A

Survey Results

MINNESOTA INTERCITY BUS STUDY - ONBOARD RIDER SURVEY

Conducted by SRF Consulting Group, Inc.

Q1: What time did you board this bus?

12:01am to 3:00 am:	5	2.78%	12:01 pm to 3:00 pm:	63	35.00%
3:01 am to 6:00 am:	3	1.67%	3:01 pm to 6:00 pm	49	27.22%
6:01 am to 9:00 am:	11	6.11%	6:01 pm to 9:00 pm:	18	10.00%
9:01 am to 12:00 pm:	31	17.22%	9:01 pm to 12:00 am:	0	0.00%

Q2A: In what city did your bus trip start?

Duluth:	47	26.11%	Winona:	0	0.00%
Fargo:	5	2.78%	Minneapolis-St. Paul		
Mankato:	2	1.11%	International Airport:	2	1.11%
Minneapolis:	25	13.89%	Other:	90	50.00%
St. Cloud:	9	5.00%	Did not answer:	0	0.00%

Q2B: In what city will you bus trip end?

Minneapolis:	46	25.56%	Minneapolis-St. Paul		
St. Paul:	7	3.89%	International Airport:	2	1.11%
Bloomington/Mall of America:	0	0.00%	Other:	125	69.44%
			Did not answer:	0	0.00%

Q2C: In what city or area do you live? (Most frequent answers)

Duluth	17	9.44%	Blaine	6	3.33%
Minneapolis	13	7.22%	Sioux Falls, SD	6	3.33%
St. Paul	7	3.89%	Did not answer:	5	2.78%

Q3: What is the purpose of your bus trip today? (Record primary purpose)

Visit friends or relatives:	65	36.11%	Medical:	5	2.78%
Other social or recreational:	10	5.56%	Personal business:	12	6.67%
Work:	12	6.67%	Go home:	50	27.78%
School or college:	22	12.22%	Other:	3	1.67%
Shopping:	1	0.56%	Did not answer:	0	0.00%

Q4: How many *other people* are traveling with you in your party? (Include babies and children)

Traveling alone:	151	83.89%	Three:	0	0.00%
One:	24	13.33%	Four or more:	0	0.00%
Two:	5	2.78%	Did not answer:	0	0.00%

Q5: How did you hear about the availability of this bus service:

Word of mouth:	69	38.33%	Internet:	31	17.22%
Newspaper:	4	2.22%	From local transit provider:	6	3.33%
Radio:	0	0.00%	From local intercity bus		
Television:	0	0.00%	agent or terminal staff:	6	3.33%
Yellow pages:	8	4.44%	Other:	48	26.67%
			Did not answer:	8	4.44%

Q6: When you decided to take this trip, what was your reason for using a bus rather than some other means of transportation? (Multiple answers are acceptable)

	Yes		No	
A. Bus is less expensive:	74	41.11%	106	58.89%
B. Don't have a car/don't drive:	70	38.89%	110	61.11%
Have a car, but:				
C. It isn't available for this trip:	18	10.00%	162	90.00%
D. Not reliable for long trips:	5	2.78%	175	97.22%
E. Don't like to drive/easier than driving:	34	18.89%	146	81.11%
F. Other:	20	11.11%	160	88.89%
G. Did not answer:	4	2.22%	176	97.78%

Q7: Would you have been able to make this trip today id this bus had not been available?

No:	82	45.56%	Other:	8	4.44%
Yes (How?):			Did not answer:	0	0.00%
Drive self:	24	13.33%			
Ride with someone:	48	26.67%			
Special program van or bus:	0	0.00%			
Airplane:	11	6.11%			
Train-Amtrak:	7	3.89%			

Q8: How would you make similar trips if this bus service were to be permanently eliminated?

Same answer as Q7:	137	76.11%	Move to a place where service was available:	0	0.00%
Purchase a vehicle:	0	0.00%	Other:	19	10.56%
Reduce number of trips:	24	13.33%	Did not answer:	0	0.00%

Q9A: How did you get to this bus?

Walked:	45	25.00%	Airplane:	0	0.00%
Drove myself:	5	2.78%	Another intercity bus:	17	9.44%
Dropped off by a friend or a relative:	102	56.67%	An Amtrak train:	0	0.00%
			Some other:	0	0.00%
Took a local bus or transit:	3	1.67%	Did not answer:	0	0.00%
A taxi:	8	4.44%			

Q9B: When you get off the bus, how will you get to your destination:

Walk:	29	16.11%	Another intercity bus:	6	3.33%
Will drive myself:	3	1.67%	An Amtrak train:	1	0.56%
Will take a local bus or transit:	10	5.56%	Some other:	5	2.78%
A taxi:	19	10.56%	Picked up by friend or relative:	107	59.44%
Airplane:	0	0.00%	Did not answer:	0	0.00%

Q10: How satisfied are you with the intercity bus service provided to locations where you want to travel? (Are you Very Satisfied, Somewhat Satisfied, Not Satisfied or Don't Know?)

	VS		SS		NS		DK	
A. Frequency of bus service:	78	43.33%	71	39.44%	28	15.56%	3	1.67%
B. Cleanliness and condition of bus:	119	66.11%	57	31.67%	3	1.67%	1	0.56%
C. Cleanliness and condition of bus station or stop:	88	48.89%	74	41.11%	11	6.11%	7	3.89%
D. Availability of bus fare and schedule information:	102	56.67%	52	28.89%	25	13.89%	1	0.56%
E. Cost of bus service:	71	39.44%	82	45.56%	24	13.33%	3	1.67%
F. Amount of time it takes to get to your destination when traveling by bus:	53	29.44%	87	48.33%	38	21.11%	2	1.11%

Q11: If you could, what would you change about this bus service? (Most frequent answers)

Increase express service	23	12.78%	Improve on-time performance	16	8.89%
Decrease cost of fare	22	12.22%	Improve staffing:	10	5.56%
Increase service/frequency	21	11.67%	Did not answer:	56	31.11%

Q12: How many miles is your home from the most convenient bus terminal?

Less than 1 mile:	1	0.56%	6 to 10 miles:	19	10.56%
1 to 3 miles:	59	32.78%	11 to 20 miles:	33	18.33%
4 to 5 miles:	32	17.78%	Over 20 miles:	30	16.67%
			Did not answer:	6	3.33%

Q13: What is your age?

Under 18:	3	1.67%	55 to 64:	14	7.78%
18 to 24:	92	51.11%	65 to 74:	10	5.56%
25 to 34:	21	11.67%	75 or older:	9	5.00%
35 to 44:	11	6.11%	Did not answer:	4	2.22%
45 to 54:	16	8.89%			

Q14: What is the last grade or level of education that you have completed?

Grade school:	6	3.33%	4 year college graduate:	13	7.22%
Some high school:	10	5.56%	Graduate school:	5	2.78%
High school graduate:	38	21.11%	Did not answer:	3	1.67%
Some college or tech school:	105	58.33%			

Q15: Are you currently:

Employed full-time:	50	27.78%	Retired:	18	10.00%
Employed part-time:	15	8.33%	Not employed:	17	9.44%
Full-time student:	75	41.67%	In active military service:	0	0.00%
Part-time student:	2	1.11%	Did not answer:	3	1.67%

Q16: Including yourself, how many people are currently living in your household?

One:	32	17.78%	Five:	21	11.67%
Two:	29	16.11%	Six:	6	3.33%
Three:	31	17.22%	More than six:	7	3.89%
Four:	50	27.78%	Did not answer:	4	2.22%

Q17: How many motor vehicles are available for regular use by members of you household?

Zero:	32	17.78%	Three:	39	21.67%
One:	40	22.22%	Four or more:	24	13.33%
Two:	42	23.33%	Did not answer:	3	1.67%

Q18: Do you have a license to drive?

Yes:	142	78.89%	Did not answer:	3	1.67%
No:	35	19.44%			

Q19: What is your family income before taxes?

Under $15,000:	25	13.89%	$55,000 to $64,999:	13	7.22%
$15,000 to $24,999:	16	8.89%	$65,000 to $74,999:	5	2.78%
$25,000 to $34,999:	15	8.33%	More than $75,000:	43	23.89%
$35,000 to $44,999:	15	8.33%	Did not answer:	39	21.67%
$45,000 to $54,999:	9	5.00%			

Q20: What is your gender?

Male:	88	48.89%
Female:	90	50.00%
Did not answer:	2	1.11%

What route was the participant riding?

Route 701:	7	3.89%	Route 908:	9	5.00%
Route 702:	21	11.67%	Route 909:	13	7.22%
Route 705:	9	5.00%	Route 910:	6	3.33%
Route 901:	8	4.44%	Route 925:	12	6.67%
Route 902:	3	1.67%	Route 926:	9	5.00%
Route 905:	5	2.78%	Route 928:	9	5.00%
Route 906:	33	18.33%	Route 929:	7	3.89%
Route 907:	16	8.89%	Route 930:	13	7.22%

Route #	From	To	Surveys Taken	Declined Surveys*	Total Passengers**
701	Minneapolis, MN	Sioux Falls, SD	7	21	28
926	Sioux Falls, SD	Minneapolis, MN	9	7	16
925	Minneapolis, MN	Sioux Falls, SD	12	4	16
702	Sioux Falls, SD	Minneapolis, MN	21	12	33
901	Minneapolis, MN	Winona, MN	8	10	18
902	Winona, MN	Minneapolis, MN	3	6	9
905	Minneapolis, MN	Duluth, MN	5	1	6
906	Duluth, MN	Minneapolis, MN	33	21	54
909	Minneapolis, MN	Duluth, MN	13	3	16
910	Duluth, MN	Minneapolis, MN	6	11	17
907	MSP Airport	Duluth, MN	16	34	50
908	Duluth, MN	MSP Airport	9	5	14
929	Minneapolis, MN	Fargo, ND	7	3	10
705	Fargo, ND	Grand Forks, ND	9	36	45
928	Grand Forks, ND	Wadena, MN	9	3	12
930	Wadena, MN	Minneapolis, MN	13	32	45
Totals			**180**	**209**	**389**
Percent of Total			**46%**	**54%**	**100%**

* Includes passengers who declined to take the survey or who were sleeping

**Total passenger counts are estimations

Additional Responses Under "Other" for Questions 2A, 2B, 2C, and 11

Route #	Where did your bus trip start?	Destination	Residence	What would you change?
701	Ft. Leonardwood, MO	St. Peter, MN	St. Peter, MN	Get more qualified ticket agents (Mankato)
701	Richmond, VA	Pierre, SD	Eagle Butte, SD	Implement a "frequent flyer" program
701	Ft. Worth, TX	Billings, MT	Weatherford, TX	Get more comfortable busses with more legroom
701	St. Peter, MN	Sioux City, IA	Waconia, MN	Shorten layovers
701		Fairmont, MN	Algonac, MI	Offer more frequent service
701		Sioux Falls, SD	Minneapolis, MN	Scheduling and on-time service worse on Jefferson Line than Greyhound. For business travel, would like to know that rider has an actual seat number, not just first-come, first-serve.
701		Worthington, MN	Chicago, IL	Improve speaker system, difficult to hear driver announcements
926	Kearney, NE	Marshall, MN	Minneota, MN	Have cleaner bathrooms, better on-time performance
926	Sioux Falls, SD	St. Cloud, MN	Sioux Falls, SD	
926	Sioux Falls, SD	Willmar, MN	Bakersfield, CA	Play music
926	San Antonio, TX	Willmar, MN	San Antonio, TX	
926	Sioux Falls, SD	Marshall, MN	Victoria, TX	Play music
926	Willmar, MN		Marshall, MN	Better on-time performance
926	Granite Falls, MN		Granite Falls, MN	Better on-time performance
926	Granite Falls, MN	Flagstaff, AZ	Kayenta, AZ	Install TVs
926			Cold Springs, MN	Install TVs
925		Sioux Falls, SD	Orleans, IN	Wider Service Range
925		Sioux Falls, SD	Orleans, IN	Wider Service Range
925		Omaha, NE	Duluth, MN	city for numerous days; poor help from driver for handicapped; have had lost baggage problems; one-way trip is more expensive than similar round trips
925	Burnsville, MN	Sioux Falls, SD	Sioux Falls, SD	Need earlier trips to avoid being at bus station at midnight
925		Marshall, MN	Brooklyn Park, MN	
925	Monticello, MN	Sioux Falls, SD	Monticello, MN	
925		St. Cloud, MN	Minneapolis, MN	
925	Dallas, TX	St. Cloud, MN	Killeen, TX	Phone chargers
925		Sioux Falls, SD	Fedora, SD	Phone chargers; no automated help when arranging routes, caused missing of bus and additional cab and bus fares to reach location
925	Chicago, IL	Granite Falls, MN	Chicago, IL	
925		Sioux Falls, SD	Sioux Falls, SD	Friendlier Bus Depot Staff and more reliable bus timing
925		Sioux Falls, SD	Sioux Falls, SD	Improved phone services, warnings at stops to get back on so don't get left behind, more direct routes
702	Omaha, NE		Omaha, NE	Reliable Travel Times
702	Sioux Falls, SD		Sioux Falls, SD	
702	Omaha, NE	Chicago, IL	Chicago, IL	Reliability of Bus and Travel Time
702	Rapid City, SD		Rapid City, SD	Improve Depot Staff, Reliable Travel Times
702	Sioux Falls, SD	Jackson, MN	Jackson, MN	Reliable Travel Times
702	Sioux Falls, SD	Worthington, MN	Worthington, MN	Competent Depot Staff

Additional Responses Under "Other" for Questions 2A, 2B, 2C, and 11

Route #	Where did your bus trip start?	Destination	Residence	What would you change?
702			Minneapolis, MN	
702			Minneapolis, MN	Arrive On Time
702	Billings, MT	Chicago, IL	Chicago, IL	Reliability
702	Sioux Falls, SD	Wichita Falls, TX	Wichita Falls, TX	Limit Layovers
702	Jackson, MN	Kansas City, MO	Jackson, MN	On time, Phone Chargers
702	Worthington, MN		Worthington, MN	Improve/Provide Depot for small stops
702	Worthington, MN		Worthington, MN	Improve/Provide Depot for small stops
702	Worthington, MN		Worthington, MN	Reliability
702	Worthington, MN		Worthington, MN	
702	Sioux Falls, SD		Sioux Falls, SD	Reliable Travel Times and better depot
702	Sioux Falls, SD	Chicago, IL	Chicago, IL	Longer intermediate stops to use bathroom
702	Sioux Falls, SD	Des Moines, IA	Des Moines, IA	More Direct Routes
702	Sioux Falls, SD		Sioux Falls, SD	Easier Ticketing/Scheduling, had daughter do it
702	Omaha, NE	St. Cloud, MN	St. Cloud, MN	Schedule Timing, Reliability
702	Boise, ID		Boise, ID	Reliable travel times
901	Lovell, WY	La Crosse, WI	La Crosse, WI	Stop overbooking bus
901	Lovell, WY	La Crosse, WI	La Crosse, WI	Stop overbooking bus
901	North Platte, NE	Rochester, MN	Rochester, MN	More legroom on bus
901	Denver, CO	Rochester, MN	Rochester, MN	More legroom and more comfortable seats on bus
901	St. Paul, MN	Rochester, MN	Rochester, MN	More legroom on bus
901	Mason City, IA	Madison, WI	Madison, WI	
901		Winona, MN	Winona, MN	No easy drop off area or ticket attendant at MSP Airport
901	Rochester, MN	Anderson, IN	Decorah, IA	Serve more cities and not have all route go through Chicago because it drastically increases trip time
902	La Crosse, WI	Columbia, MO	London, UK	Reduce Cost and take better care of bags when loading the bus
902	Winona, MN	Springfield, MO	Gainesville, MO	
902	St. Paul, MN	Kansas City, MO	St. Paul, MN	Too many transfers
905		Duluth, MN	Duluth, MN	
905		Duluth, MN	Duluth, MN	
905		Duluth, MN	Duluth, MN	
905		Duluth, MN	Minneapolis, MN	Less stops on non-express routes
905		Duluth, MN	Duluth, MN	Always run express routes on the same schedule
906			Cedar, MN	Cheaper for Students
906		Burnsville, MN	Shakopee, MN	Cheaper for Students
906			Mound, MN	
906		Burnsville, MN	Shakopee, MN	
906		Blaine, MN	Maple Grove, MN	Cheaper for Students; play different other movies
906		Blaine, MN	Ham Lake, MN	Cheaper for Students
906			St. Paul, MN	Cheaper
906			Plymouth, MN	Cheaper

Additional Responses Under "Other" for Questions 2A, 2B, 2C, and 11

Route #	Where did your bus trip start?	Destination	Residence	What would you change?
906		Burnsville, MN	Burnsville, MN	Cheaper
906			Minnetonka, MN	Cheaper
906		Burnsville, MN	Eagan, MN	Cheaper
906			Duluth, MN	Cheaper
906			New Hope	Other Times, Had to Skip Class
906			Edina, MN	
906			Plymouth, MN	
906			Eagan, MN	More leg room
906			Woodbury, MN	Cheaper
906		Blaine, MN	Blaine, MN	Cheaper
906		Blaine, MN	Blaine, MN	
906		Blaine, MN	Blaine, MN	
906			Golden Valley, MN	
906		Blaine, MN	Blaine, MN	Cheaper
906			Minneapolis, MN	Cheaper
906		Blaine, MN	Blaine, MN	
906		Blaine, MN	Forest Lake, MN	
906			Medina, MN	
906		Blaine, MN	Blaine, MN	
906		Blaine, MN	Circle Pines, MN	Cheaper
906		Blaine, MN	Circle Pines, MN	Cheaper
906			Eden Prairie, MN	
906			Chanhassen, MN	
906			Plymouth, MN	
906			Roseville, MN	
909		Duluth, MN	MI	
909		Duluth, MN	Wayzata, MN	The driver was rude, more courteous staff.
909		Duluth, MN	Minneapolis, MN	Less expensive
909	Toledo, OH	Duluth, MN	Toledo, OH	More frequency, better driver attitude, less cost
909		Moose Lake, MN	Minneapolis, MN	Better driver attitude, better communication of rules before ticket purchase, better display of time tables, handicap (ADA) accessibility
909	St. Paul, MN	Cloquet, MN	St. Paul, MN	Express service
909	Omaha, NE	Duluth, MN	Duluth, MN	Less layovers, connection guarantee
909		Cloquet, MN		
909		Duluth, MN	Richfield, MN	
909	St. Louis, MO	Duluth, MN	Northern Wisconsin	More leg room
909	St. Paul, MN	Duluth, MN	Lake Isabella, CA	More leg room
909		Duluth, MN	Minneapolis, MN	More express service, extend Duluth route into Superior, Wisconsin
909	Waterloo, IA	Duluth, MN	Duluth, MN	More express service

Additional Responses Under "Other" for Questions 2A, 2B, 2C, and 11

Route #	Where did your bus trip start?	Destination	Residence	What would you change?
910			St. Peter, MN	More direct service, less layovers, smoking area
910	Cloquet, MN		Cloquet, MN	
910		Madison, WI	Madison, WI	More express routes
910		Forest Lake, MN	Mahtomedi, MN	More leg room
910		St. Paul, MN	St. Paul, MN	More frequency, less stopping
910	Hinckley, MN		Minneapolis, MN	More availability of scheduling information
907		Duluth, MN	Duluth, MN	Have headphone jacks for movies so not everyone has to listen to the movie
907	Burnsville, MN	Duluth, MN	Bloomington, MN	
907	Burnsville, MN	Duluth, MN	New Prague, MN	
907	Burnsville, MN	Duluth, MN	New Prague, MN	
907		Duluth, MN	Eden Prairie, MN	Reduce price of bus, offer a later time on Sunday
907		Duluth, MN	Duluth, MN	
907		Duluth, MN	Eden Prairie, MN	Offer more frequent bus service
907		Duluth, MN	Woodbury, MN	
907		Duluth, MN	Duluth, MN	
907		Duluth, MN	St. Paul, MN	
907		Duluth, MN	Apple Valley, MN	Offer later time on Sunday
907	Blaine, MN	Duluth, MN	Monticello, MN	Offer later time on Sunday
907	Blaine, MN	Duluth, MN	Watertown, MN	
907	Blaine, MN	Duluth, MN	Plymouth, MN	
907	Blaine, MN	Duluth, MN	Richfield, MN	Have more TVs
907	Blaine, MN	Duluth, MN	Duluth, MN	Have more TVs
908			St. Paul, MN	Offer more express busses
908			Duluth, MN	
908			Minneapolis, MN	
908			Duluth, MN	Add back the Greyhound station stop in downtown St. Paul
908			Minneapolis, MN	Reduce the price
908			Duluth, MN	
908			Duluth, MN	Reduce the price
908			Minneapolis, MN	Reduce the price
908			Duluth, MN	Express bus leaves too early on Friday from Duluth
929	Seminole, TX	Monticello, MN	Anoka, MN	More use of latest technology. Electronic ticketing
929		Grand Forks, ND		Increase frequency of service/availability of express routes, improve website
929	Chicago, IL	St. Cloud, MN	Chicago, IL	More express service (larger city to larger city-less stops)
929		Wadena, MN	St. Cloud, MN	Post times at terminal
929		Fargo, ND	East Grand Forks, MN	May be opportunity to consolidate routes
929	New Orleans, LA	Grand Forks, ND	Crookston, MN	More express service to major destinations
929	Brainerd, MN	Grand Forks, ND	Brainerd, MN	More frequency, more express service

Additional Responses Under "Other" for Questions 2A, 2B, 2C, and 11

Route #	Where did your bus trip start?	Destination	Residence	What would you change?
705	St. Louis, MO	Grand Forks, ND	Grand Forks, ND	More trips in/out of Grand Forks
705	McAllen, TX	Calgary, AB	McAllen, TX	Improve customer service, knew little about connecting services
705	Colby, KS	Calgary, AB		More direct service (in Colby)
705	Brookings, SD	Grand Forks, ND	Grand Forks, ND	More reliability (frequently late)
705	Cedar Rapids, IA	Winnipeg, MB	Cedar Rapids, IA	More frequency, less layovers
705	Columbus, SC	Calgary, AB	Brandon, MB	
705	Kansas City, KS	Winnipeg, MB	St. Louis, MO	Better maintain facilities and buses (i.e. onboard toilet)
705	Columbus, SC	Calgary, AB	Edmonton, AB	Better inter-carrier coordination
705	Janesville, WI	Grand Forks, ND	Buckeye, AZ	More express service
928	Phoenix, AZ	Phoenix, AZ	Phoenix, AZ	
928	Grand Forks, ND	Durant, MS		More direct service
928	Grand Forks, ND		Cincinnati, OH	Staff at ticket window should be more knowledgeable and polite, gave wrong information about connection.
928	Crookston, MN	Fosston, MN	Bagley, MN	
928	Bemidji, MN	Paul's Valley OK	Paul's Valley, OK	
928	Cass Lake, MN		Minneapolis, MN	
928	Walker, MN	St. Cloud, MN	Walker, MN	More frequency
928	Walker, MN		St. Paul, MN	
928	Park Rapids, MN		Laport, MN	More frequent service, have TVs
930		Otsego, MN	Morgan Hill, CA	More knowledgeable staff
930			Halstad, MN	
930			Moorhead, MN	
930	Grand Forks, ND		Brooklyn Center, MN	Less layovers
930	Detroit Lakes, MN		Cottage Grove, MN	
930		Blacksburg, IA	Fort Collins, MN	
930			St. Louis, MO	More express routes
930	Brainerd, MN	St. Cloud, MN	Cincinnati, OH	More frequency, better scheduling (bus is late)
930			New Brighton, MN	Better communication between late buses and terminal, accurate scheduling
930	Little Falls, MN	Denver, CO	Little Falls, MN	Display (and publish) time tables, deputize a manager at stations (McDonalds), guarantee inter-line transfers
930			St. Cloud, MN	Don't sell tickets if bus is full
930		Chicago, IL	St. Cloud, MN	Be on time
930			St. Cloud, MN	