

# MONTANA INTERCITY BUS SERVICE STUDY

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Final Report

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THE STATE OF MONTANA  
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December 2011

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RESEARCH PROGRAMS

**MDT**★

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# Montana Intercity Bus Service Study

## Final Report

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<b>16. Abstract</b> Intercity bus service funding from the Federal Transit Administration (FTA's) Section 5311(f) program is a part of the larger 5311 program known as Formula Grants for Other than Urbanized Areas. The S.5311(f), requires that 15% of the total 5311 program funds given to the state be used to develop and support ICB service. This 15% can be waived if the governor certifies that the intercity bus transportation needs are being met within the state. The goal of this project was to provide the Montana Department of Transportation (MDT) with a current assessment of intercity bus services within the state, and provide a methodology that can be used by MDT to determine if needs are being met and, if not, a process to identify potential new routes/services and how to allocate funding for the new services. To achieve this goal, the research team first conducted an extensive literature review of intercity bus service studies in other states. Following that, a survey of peer states, with characteristics similar to Montana's rural/frontier nature was performed to understand funding practices and perceive barriers of intercity bus service. Two additional surveys were distributed to intercity bus riders and the general public in Montana to provide insight into the use of intercity bus services and the attitudes toward the services. The research team then examined the connectivity of current intercity bus services with local public transportation providers in Montana, as well as other transportation modes. In addition, a survey of local transit agencies in Montana was conducted. The results from the network connectivity analysis and the survey were used as a basis to help define "meaningful connections" for intercity bus services in Montana. Finally, this research provided a methodology that can be used by MDT to determine intercity bus service needs are being adequately met. The methodology consists of an annual process to support existing intercity bus services and a triennial process to determine if there is the need for new services.			
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## 1. INTRODUCTION

The Federal Transit Administration (FTA) defines intercity bus (ICB) service as “regularly scheduled bus service for the general public that operates with limited stops over fixed routes connecting two or more urban areas not in close proximity, that has the capacity for transporting baggage carried by passengers, and that makes meaningful connections with scheduled intercity bus service to more distant points, if such service is available. Intercity bus projects may include package express service, if it is incidental to passenger transportation. Intercity service is not limited by the size of the vehicle used or by the identity of carrier” (FTA, 2007).

ICB service funding from the FTA’s Section 5311(f) program is a part of the larger 5311 program known as Formula Grants for Other than Urbanized Areas. The 5311 program provides funding to the states to support public transportation in areas with populations less than 50,000. The Non-Urbanized Intercity Bus Formula Program, S.5311(f), requires that 15% of the total 5311 program funds given to the state be used to develop and support ICB service. This 15% can be waived if the governor certifies that the intercity bus transportation needs are being met within the state (FTA, 2007).

In the State of Montana, national/major ICB services are provided in the areas along Interstates 90 and 15, and US Highway 93. A large geographic area of the state does not have ICB services. An analysis indicates that approximately 45 percent of Montanans (436,799 people) live in cities served by national/major ICB services (Table 1.1), including eight of the ten largest cities in the state. Moreover, only three cities in Montana exceed this threshold and are considered urban: Billings, Missoula, and Great Falls.

At the national level, the ICB industry has abandoned numerous unprofitable routes across the country in the last five decades, due to the increase in personal automobile ownership, competition from airlines and Amtrak, and high operating costs. In the 1950s, more than 20,000 communities were connected by ICB services, while less than 5,000 communities were served by these services in 2000 (Brannan et al., 2010). The termination of intercity routes had a profound impact on available services, especially in rural areas. At present, Greyhound Lines Inc. is the only nationwide ICB carrier in the United States.

**Table 1.1: Cities/Towns with ICB Service in Montana <sup>a</sup>**

City/Town	2009 Population <sup>b</sup>		City/Town	2009 Population	
	Estimate	Rank <sup>c</sup>		Estimate	Rank
Billings	105,845	1	Columbus	2,039	34
Missoula	68,876	2	Ronan	1,999	36
Great Falls	59,366	3	Three Forks	1,970	37
Bozeman	39,282	4	Forsyth	1,865	39
Butte-Silver Bow	32,268	5	Big Timber	1,740	41
Helena	29,939	6	Manhattan	1,677	43
Kalispell	21,640	7	West Yellowstone	1,502	46
Whitefish	8,400	10	Boulder	1,475	47
Belgrade	8,192	11	Whitehall	1,191	52
Miles City	8,123	12	St. Ignatius	807	65
Livingston	7,380	13	Cascade	770	67
Laurel	6,750	14	Bridger	736	68
Polson	5,231	17	Terry	567	79
Glendive	4,628	20	Wibaux	480	82
Dillon	4,226	21	Drummond	322	94
Hardin	3,532	22	Hysham	233	100
Deer Lodge	3,517	24	Lima	231	101
Total Population with Service				436,799	

Source: (U.S. Census Bureau, 2009)

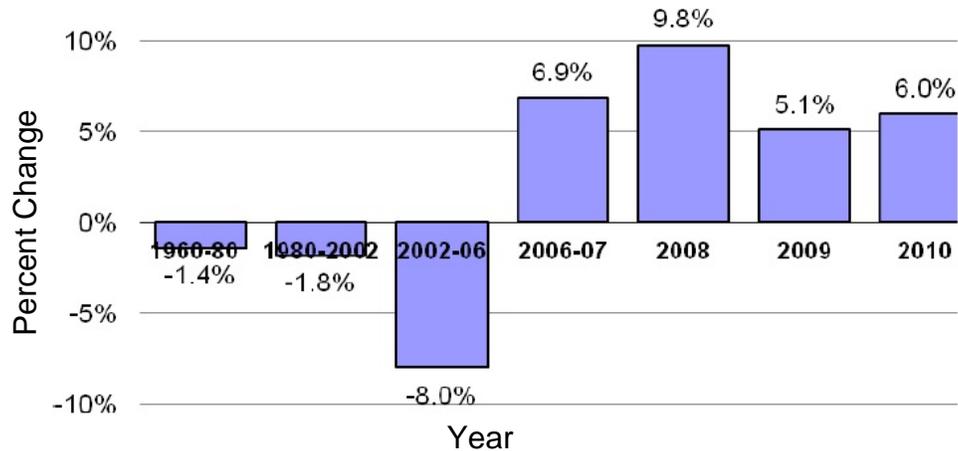
Notes:

<sup>a</sup> ICB Service, for this purpose, is defined as listed stops on the websites of regional bus service providers Greyhound, Rimrock Stages/Trailways and Salt Lake City Express.

<sup>b</sup> Montana 2009 Population Estimate 974,989.

<sup>c</sup> Ranking based on 129 cities/towns recognized by the U.S. Census.

After half a century of decreases in service, ICB operations have started to expand in the past few years (Schwieterman and Fischer, 2010). As indicated in Figure 1.1, ICB services have started to recover since 2006. After a continued shrinkage during 1960-80 (on average, decreasing by 1.4% annually), 1980-2002 (-1.8% annually), and 2002-2006 (-8.0% annually), ICB services expanded 6.0% during 2010.



**Figure 1.1: Changing Level of ICB Service**

(Source: Schwieterman and Fischer, 2010)

Despite the recent growth, ICB needs may remain unmet, given the low level of service across the country. States need to determine whether or not ICB needs are being adequately met, and how to allocate funds to support ICB service.

The goal of this project was to provide a current assessment of Montana ICB services. This study also provided a methodology that can be used to determine if ICB service needs are being met adequately and if not, a process to identify potential new routes/services and how to allocate funding for the new services. In this study, the research team’s approach synthesized information gathered from the existing literature ([Chapter 2](#)), survey responses from peer states with characteristics similar to Montana’s rural/frontier nature ([Chapter 3](#)), and survey responses from intercity bus riders and the general public in Montana ([Chapter 4](#)). In addition, the research team defined “meaningful connections” of ICB in Montana based on a network connectivity analysis and a survey of local transit agencies ([Chapter 5](#)). [Chapter 6](#) provides a methodology for MDT to determine if needs are being adequately met and, if not, a process to identify potential new routes/services and how to allocate funding for the new services. Finally, [Chapter 7](#) summarizes the conclusions and provides implementation recommendations of this research study.

## 2. LITERATURE REVIEW

In this chapter, a review of literature concerning ICB service was completed to highlight: 1) current federal ICB regulations, 2) information from other states (focusing on rural/frontier states) regarding ICB service, 3) national studies, 4) ICB funding approaches in other states, and 5) best practices by other states in regard to funding ICB service to maintain and increase ridership.

### 2.1. Federal Intercity Bus Regulations

The 5311 program provides funding to states to support public transportation in areas with populations less than 50,000. Goals of the S.5311(f) program include: 1) enhancing the access of non-urbanized populations to healthcare, shopping, education, employment, public services and recreation, 2) assisting in the maintenance, development, improvement, and use of public transportation in non-urbanized areas, 3) coordinating programs and services to facilitate the most efficient use of passenger service transportation funds in non-urbanized areas, 4) assisting in the development and support of ICB transportation, and 5) providing for the participation of private transportation providers in non-urbanized transportation (FTA, 2010).

The S.5311(f) program requires that 15% of the total 5311 program funds given to the state be used to “carry out a program to develop and support ICB transportation” (FTA, 2007). This 15% can be used elsewhere if the governor certifies that the ICB transportation needs are being met within the state. Prior to the Safe, Accountable, Flexible, and Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) of 2005 (<http://www.fhwa.dot.gov/safetealu/>), governors often certified that their ICB needs were being met in order to use the funds in other areas. This certification became harder to justify after SAFETEA-LU, because it required a more stringent consultation process with current ICB providers before certification could be given. The consultation process must now include: 1) identification of ICB providers, 2) activities the state will perform with identified providers, 3) an opportunity for ICB providers to submit proposals for funding, and 4) a direct correlation between the results of the consultation process and a determination that the state’s ICB needs are being adequately met (FTA, 2007).

As noted previously, the Federal Transit Administration (FTA) defines intercity bus (ICB) service as “regularly scheduled bus service for the general public that operates with

limited stops over fixed routes connecting two or more urban areas not in close proximity..., and that makes meaningful connections with scheduled intercity bus service to more distant points, if such service is available.” While not included specifically in the FTA regulations or guidance, a “meaningful connection” has generally been defined as a connection with a wait time less than two hours (KFH Group, 2007a).

## **2.2. State Practices**

Many states have completed or begun ICB service studies to understand some of the issues concerning ICB service in their states. Studies usually include compiling services currently operating, identifying potential areas needing improvement, developing methodologies to determine the need for ICB service, and helping to determine if the needs for ICB service are being met within the state. The literature search revealed that many states, including (but not limited to) Alabama, California, Idaho, Illinois, Indiana, Minnesota, North Dakota, Ohio, Tennessee, Texas, Washington and Wisconsin have completed ICB studies. This section summarizes the findings of ICB studies in those states.

### ***Alabama***

Lindly’s 2009 study on Alabama’s ICB service had the specific goal of helping the governor determine if the S.5311(f) funds should be waived. The study recommended that the ICB funds not be waived, but be used to help with planning and marketing for ICB service. Other uses deemed less important than marketing included improving feeder routes for ICB service, providing over the road coaches for private providers, and providing subsidies for private providers operating restored ICB routes (Lindly, 2009).

### ***California***

The California statewide study assessed ICB connectivity and found that “the combination of the services provided by private firms under the market, the Amtrak bus/rail network, and the S.5311(f) funded services provided good coverage, in the sense that almost all places in California identified as a high or moderate need are within 25 miles of an intercity bus stop, and most in the ten- to 25-mile range are linked to a point with intercity bus service by local transit” (KFH Group, 2007a). This study also identified several issues and opportunities in the S.5311(f) program. The issues include continued funding for projects, lack of intercity

connectivity and focus, local match for rural intercity projects, unserved areas/routes despite availability of S.5311(f) funding, and lack of network connectivity. Based on the results and identified issues, recommendations were developed to be integrated into departmental, local and regional planning practices as an action plan. Some of the recommendations include (KFH Group, 2007a):

- Increase technical assistance in project development (capital assistance), implementation, and monitoring;
- Add rural intercity needs in the assessment; and
- Develop pro-active policy favoring intermodal facilities that include ICB services.

The study also defined “meaningful connection” of a fully connected rural ICB, which satisfies the following conditions (KFH Group, 2007a):

- A fully connected service uses a common terminal (can enter the property with a terminal license) with a carrier that is part of the national network, and within the facility, signage, and other information is available to customers about the connecting service.
- Services are scheduled to require no more than a two-hour wait for outbound or inbound passengers.
- Interline service agreements between the feeder and the intercity carrier allow through tickets to be issued, and provide for baggage liability.
- Schedule, fare and other information is available to both local and distant users.

### ***Idaho***

A study of Idaho’s ICB service found that in Idaho most ICB needs were being met; however, some ICB funds were being used for services more similar to commuter bus (Ballard, 2010). Also a lack of easy-to-use information about schedules and routes was identified, along with a need for improvements in the ability to carry passengers’ luggage (Ballard, 2010).

### ***Illinois***

Pagano et al. (2001) analyzed ICB service demand in Illinois and identified possible ICB service options and enhancements. In the demand analysis, a method based on the gravity model was used to develop a scoring function of potential interaction. The formulation of the gravity model is:

$$T_{ij} = G * A_i * A_j / d_{ij}^2$$

where:

$T_{ij}$  = number of trips between zones  $i$  and  $j$ ;

$A_i$  = measure of attractiveness of zone  $i$ ;

$A_j$  = measure of attractiveness of zone  $j$ ;

$d_{ij}^2$  = (straight-line) distance between zones  $i$  and  $j$ ; and

$G$  = a constant of proportionality.

A scoring function was then developed as:

$$S_{ij} = \frac{T_{ij}}{G} = A_i * A_j / d_{ij}^2$$

where  $S_{ij}$  is the interactivity potential between zones  $i$  and  $j$ . The study used population as an attraction, and a higher score corresponds to greater potential demand for ICB service. Study results showed that the southern and western parts of the state were in need of additional ICB service. The study also provided recommendations for improving and expanding service, integrating ICB service with rural connections, and using funds to sponsor routes and improve bus terminal facilities (Pagano et al., 2001).

### ***Indiana***

RLS & Associates (2009) investigated existing ICB service and analyzed ICB needs in Indiana. It was found that 95.6% of populations in Indiana live within reasonable distance of ICB service; 9% of the rural residents of Indiana have access solely to ICB service and not to the other modes including air or rail. Thus, if combining ICB, air, and rail service together, 99.8% of Indiana residents live with reasonable access to commercial intercity transportation. Given these facts, the authors concluded that Indiana DOT (Department of Transportation) needs to weigh the level of unmet rural public transportation needs against the ICB needs, and to decide whether to use all of the funds authorized for ICB needs or to use a portion of the funds to provide other unmet rural public transportation needs across the state.

### ***Minnesota***

The Minnesota ICB network study reviewed and evaluated the existing ICB network, determined changes and improvements, and provided an operational plan and policy

recommendations to meet ICB needs (KFH Group, 2010a). The recommendations for improving the ICB program include:

- Mn/DOT should provide funding to no more than one carrier providing similar service in the same corridor.
- 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.
- Mn/DOT should provide direction in its application regarding the location and amount of service it would like to see provided.
- 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.).
- Provision of vehicle capital should be considered as a strategy to support the infrastructure of the ICB system, while reducing net operating deficits.

The report also recommended that Mn/DOT conduct a bi-annual consultation process that would involve identifying intercity carriers, soliciting input on rural intercity transportation needs, potentially conducting other studies to determine need; and making policy decisions in light of identified needs.

### ***North Dakota***

In light of changes in travel behavior due to increased fuel prices and possible changes in transportation policy, a North Dakota study was conducted to determine the attitudes of would-be passengers in rural and small urban areas (Mattson et al., 2010). A survey was distributed to residents of North Dakota and northwest and west central Minnesota. The survey provided respondents hypothetical travel situations with varying conditions, including travel cost, travel time, wait time, comfort, and convenience and access. The respondents were asked to choose their most likely mode of transportation: automobile, bus, airplane, train, or van. The study showed that as gas prices hypothetically rose from \$2 to \$6 per gallon, user preference for automobiles decreased from 87% to 70%. Individuals in lower income levels accounted for the majority of this decrease as the relative cost of driving a vehicle increases more than other modes as gas prices increase. It was also found that van services were selected by more respondents than both bus and train services in most cases (Mattson et al., 2010).

### ***Ohio***

A survey was completed in Ohio to assess the state's ICB service. Sixty-two percent of responding communities did not think ICB service needs were being met. Nearly 83%, however,

felt ICB service was not an issue for their community. A service more similar to commuter bus was found to be of greater importance (The Lakatos Group, 2007).

### ***Tennessee***

To assess ICB service needs in Tennessee, the Transystems company conducted surveys of the public and of Rural Planning Organizations (RPOs) and Metropolitan Planning Organizations (MPOs). Outcomes from the RPO/MPO surveys were identification of providers, discontinued services, and unmet needs for ICB service. It was noted that knowledge of ICB issues varied greatly across most RPO/MPOs. The public survey found that 65% of people were familiar with ICB service and 55% had used the service. Also 56% of respondents felt ICB service needs were being met. Suggestions for improvements included longer hours of operation, weekend services, and information access (Transystems, 2007).

### ***Texas***

A recent study in Texas examined long distance intercity and interregional corridors to determine which corridors will most likely need additional intercity travel capacity in the coming decades (Morgan et al., 2010).<sup>1</sup> The study examined corridor characteristics (e.g. corridor length, projected travel times at various average speeds, demographic projections) for 18 intercity corridors. The rankings of the corridors based on these characteristics were used to identify those that may need added intercity transit services in the future.

### ***Washington***

Washington Department of Transportation (WSDOT) conducted a study to determine the extent to which the current ICB service served the needs of those that would most benefit from ICB service, called “potentially transit-dependent persons.” The analysis results showed that the areas with the highest density of potentially transit-dependent persons were mostly congruent with areas of highest population density and already had adequate ICB service. Those identified with the highest need for transit services were persons aged 18-24, persons aged 60 and older, persons living below the poverty line, persons with disabilities, and persons from households

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<sup>1</sup> Intercity travel capacity is evaluated by two measures: 1) the weighted average volume-capacity ratio on subject highway along each travel corridor; and 2) the average percentage of trucks traveling on highway segments along each study corridor.

without automobiles. The study concluded that areas with the highest population densities should be the areas on which bus network expansion is focused. The study also identified factors that increased ICB travel, such as access to colleges and universities, airports, hospitals, military bases, correctional facilities, and linkages with rail transportation. Finally, the study identified issues with S.5311(f) funding for ICB service, such as insufficient personnel with grant writing skills, and difficulties in finding local support, sponsorship, and matching funds. Washington State has not certified that it has no unmet needs, and utilizes the full 15% of funds (KFH Group, 2010b).

### ***Wisconsin***

The Wisconsin Department of Transportation undertook a project to develop a benefit-cost analysis tool to help determine which ICB service routes may be most beneficial. The study was prompted by Greyhound's decision to cut many services in Wisconsin. Benefits considered included user cost savings, option value of transit, and chauffeuring cost reduction for the individuals riding the bus. Costs included environmental, safety, and economic impacts to society. The benefit-cost analysis was implemented in the Intercity Bus Benefit/Cost Analysis (IBBCA) model. The work focused on four prospective routes out of the thirteen ICB routes in Wisconsin. Researchers concluded that the data was limited, because the research sampled only a few of the many possible intercity routes in the state. Therefore, they were unable to determine statewide demand. The analysis results indicated that most routes have relatively high benefit-cost ratios and are therefore worthwhile investments for Wisconsin; user benefits are the dominating effects of investments (Guo et al., 2008).

### **2.3. National Studies**

Many states have struggled to find effective ways to support and improve rural ICB transportation using S.5311(f) funds, state funds, or a combination of both. Also, little information was available about funded projects to maintain and improve rural ICB services. To address these issues, a national study was conducted with the goal to identify strategies for initiating, preserving, and enhancing effective rural ICB transportation (KFH Group 2002). Seven strategies were identified through the study:

- *Strategy 1: Determining the interest in rural intercity service assistance.* State and local planners can conduct more formal requests for input concerning rural ICB service needs

and interest. These requests can be included as part of the scope of services of planning studies, or they can be separate requests made more frequently or even annually.

- *Strategy 2: Planning.* An annual survey of rural intercity providers and the use of grant application processes are ways that a state can determine needs for ICB service. However, neither way provides the planner or policymaker with information about the *overall* level of ICB service. The more comprehensive and effective approach to determine needs involves planning, which includes information gathering, analysis of information, development of policies, and ways to address ICB service needs.
- *Strategy 3: Developing a program.* This strategy follows the previous two strategies. It includes the steps of: 1) determining whether to certify that the state has no unmet needs for ICB service each year; 2) determining program goals; 3) choosing program elements; 4) identifying funding sources; 5) addressing other federal requirements; 6) evaluating project proposals; and 7) adhering to reporting and compliance requirements.
- *Strategy 4: Providing operating assistance.* Operating assistance is an effective way to put service on the road in places that do not have it, and to maintain existing services that are not profitable to private for-profit carriers and that may be subject to service reductions or abandonment of service.
- *Strategy 5: Providing capital assistance.* Capital assistance includes funding for vehicle purchase, wheelchair lift purchase, passenger facilities, and others (e.g. signing, computer, and Intelligent Transportation Systems).
- *Strategy 6: Providing marketing assistance.* A number of approaches and activities can be considered and implemented including development of a marketing plan, market research, development of user information materials, promotional activities, and development of community relations and partnerships.
- *Strategy 7: Creating project combinations.* It is important to note that the most effective strategy may be a combination of projects. An effective strategy may require several elements (e.g. planning, capital assistance, operating assistance, and marketing).

Strategies 1 through 3 are reactive strategies and strategies 4 through 7 are active. Although no proactive strategies were provided by the study, a National Cooperative Highway Research Program (NCHRP) study revealed that twenty-eight states were proactive in reaching

out to the intercity carriers and including the intercity carriers in the discussion of needs/gaps in service (KFH Group, 2010b).<sup>2</sup> The NCHRP study also identified four characteristics of successful state ICB programs to be correlated to the continued operation of successful rural ICB strategies. These characteristics include: 1) state support for the program; 2) consultation process and efforts to increase participation; 3) funding and ability to meet program goals; and 4) staff knowledge of existing ICB operators/services in the state.

#### **2.4. Intercity Bus Funding**

Aside from the S.5311(f) program, a number of states have their own programs for subsidizing ICB services (KFH Group, 2002). States' funds allow more flexibility in funding projects than is possible with the federal program. In a national survey, 29 of 44 participating states affirmed that they did maintain a S.5311(f) program. Five states responded that they did not support a S.5311(f) program, and three indicated that they filed the Governor's Certification that there was "no unmet need" (KFH Group, 2010b).

Moreover, many types of local funds are used by intercity program sponsors to support ICB services. Local funds are generated at the local level or from different sources that make funds available to localities (KFH Group, 2002). For example, one of the projects in Maine serves several communities along a coastal route. Three communities contributed local funds to help meet the match requirements for the S. 5311(f) program. Finally, private funding also is provided through both private non-profit organizations that are involved with ICB transportation, and private ICB carriers that operate such service (KFH Group, 2002).

The national study (KFH Group, 2010b) revealed that local operating match has been and continues to be a fundamental problem. ICB routes that serve different jurisdictions and need funding will require ongoing assistance from local match, while obtaining ongoing operating assistance match from local governments or private for-profit carriers is very problematic.

There are two primary methods for funding ICB service. The first is a traditional grant funding process. Many states use this method, which involves the ICB providers applying for funding and the state department of transportation (DOT) personnel determining which applicants receive it. Iowa uses this method with the following priority rankings: 1) providing

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<sup>2</sup> The NCHRP study provided a snapshot of the current status of the S.5311(f) program across the nation, and provided states with examples and recommendations for successful program implementation.

existing ICB service (award \$0.20/mile), 2) adding new feeder routes from non-urban communities (award \$0.50/mile for new service, \$0.20/mile for duplicate routes), 3) increasing public awareness and marketing (award case-by-case), and 4) upgrading equipment and facilities such as ADA accessibility equipment (award case-by-case) (Lindly, 2009). In addition to Iowa, Colorado, Minnesota, and Pennsylvania DOT programs provide assistance in the form of grants to eligible applicants (KFH Group, 2010b).

A different approach to ICB service funding is a system that more closely resembles a bid process. For this method, state DOT personnel identify potential ICB service routes in need of upgrades, then issue a request to qualified bidders. The bidders propose a compensation rate for providing services on the identified routes. Washington state identified uses the bid method. After WSDOT staff identifies a route in need of service, they issue a Request for Proposal (RFP) and ask that bidders provide (1) their qualifications, (2) price, (3) experience, and (4) a proposed business plan. The bids are reviewed by a panel consisting of WSDOT staff, a Washington Utilities and Transportation Commission (WUTC) representative, local (non-bidding) transit operators, and representatives of the non-bidding private bus industry (KFH Group, 2007b).

Some other states, such as California and Oregon, are not limited to one funding approach. Caltrans provides ICB assistance in three forms: 1) grants; 2) RFP; and 3) a mixture of both approaches. In Oregon, funding is provided through a grant under the discretionary program, while an RFP approach is used under a pilot project for service on particular corridors that were identified by an ODOT needs study. Mixed funding can also be awarded in Oregon. (KFH Group, 2010b)

ICB service funds are used for different purposes across states in the United States, depending on their funding priorities. Table 2.1 shows how ICB funds were allocated in nine states as identified through the literature review. The survey also revealed that almost all of the states required local match and reporting/auditing for ICB projects.

**Table 2.1: Allocation of S.5311(f) Funds**

State	Allocation of Funds (Eligible Activities)	Notes
AL	<ul style="list-style-type: none"> <li>• Planning and marketing for ICB transportation;</li> <li>• Feeder routes to connect with ICB service;</li> <li>• Over the road coaches for private providers; and</li> <li>• Operating subsidies to private providers that provide restored ICB service.</li> </ul>	N/A
CA	<ul style="list-style-type: none"> <li>• Operating and capital assistance; and</li> <li>• Construction of facilities (in very limited cases).</li> </ul>	Vehicle project awards are allowed a project period of 2 years, while transit facility projects are allowed multi-year periods to expend funds.
CO	<ul style="list-style-type: none"> <li>• Operating assistance;</li> <li>• Limited capital for vehicles; and</li> <li>• Potential statewide and route specific marketing.</li> </ul>	<p>For operating assistance, CDOT provides FTA funding for up to 50% of the net operating deficit (up to 100% for pilot project).</p> <p>For capital projects providing ADA accessibility or Clean Air Act compliance, Federal funds are available for a maximum of 90% and a 10% local match. For other projects, the maximum federal share is 80%, with a local or carrier share of 20%.</p>
GA	<ul style="list-style-type: none"> <li>• Vehicle purchases;</li> <li>• Signage; and</li> <li>• Marketing elements.</li> </ul>	<p>Only private, for-profit intercity providers are eligible for the 5311(f) program.</p> <p>For vehicle purchases, 20% of project cost is local matching funding from the private providers.</p>
IL	<ul style="list-style-type: none"> <li>• Operating, capital, and technical assistance projects.</li> </ul>	<p>Existing Illinois funding guidelines provide no encouragement for innovative proposals.</p> <p>The current system encourages non-sustainable service.<sup>3</sup></p>

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<sup>3</sup> (Pagano et al., November 2001)

Table 2.1: Continued

State	Allocation of Funds (Eligible Activities)	Notes
IA	<ul style="list-style-type: none"> <li>• Support to preserve the existing interstate system;</li> <li>• Development of new connector/feeder service;</li> <li>• Route-specific marketing projects; and</li> <li>• Vehicle and bus terminal improvements.</li> </ul>	<p>Operating assistance projects generally cover a one-year period.</p> <p>Capital improvement projects are allowed a reasonable period for project implementation based on the nature of the project.</p>
MN	<ul style="list-style-type: none"> <li>• Operating assistance for existing routes at risk of being shut down, and new routes;</li> <li>• Capital assistance for the construction of stations, terminals, and shelters or vehicle retrofit costs for accessibility equipment required to meet ADA;</li> <li>• Marketing; and</li> <li>• Planning studies.</li> </ul>	<p>Request for operating assistance must contain locally specific marketing activities.</p> <p>The state does not provide any portion of the local match for operating projects.</p> <p>Capital project requires a 20% local match, with the remaining 80% provided out of federal funds.</p>
OH	<ul style="list-style-type: none"> <li>• Purchase/construction of intermodal facilities;</li> <li>• Administrative cost of ticketing agents;</li> <li>• Marketing expenses; and</li> <li>• Route-specific operating assistance.</li> </ul>	<p>No state funds used toward the non-federal matching requirements.</p>
OR	<ul style="list-style-type: none"> <li>• Planning;</li> <li>• Capital assistance;</li> <li>• Operating assistance; and</li> <li>• Pilot project grants for operating assistance for specific service in specific corridors.</li> </ul>	<p>To be eligible for financial support, services must have limited stops over longer distances and be part of the national ICB or rail network.</p> <p>Operating funds are normally awarded for two years. Operating projects are funded with maximum 50% Federal and minimum 50% local shares.</p> <p>Capital projects are funded with 80% Federal funds and a 20% local match.</p>

Table 2.1: Continued

State	Allocation of Funds (Eligible Activities)	Notes
PA	<ul style="list-style-type: none"> <li>• Operating assistance; and</li> <li>• Limited capital assistance.</li> </ul>	<p>Operating projects are eligible for 50% Federal funding, 25% State, with 25% local/carrier match required.</p> <p>Capital projects making ADA (Americans with Disability Act) improvements are funded with 90% Federal funds and 10% local match. Any other capital projects are funded with 80% Federal funds, 10% state funds, and a 10% local match.</p>
WA	<ul style="list-style-type: none"> <li>• Vehicle purchase;</li> <li>• Equipment to provide accessibility;</li> <li>• Computers and other equipment to provide interline ticketing;</li> <li>• Signage; and</li> <li>• Facilities at the receiving station that are used by the 5311(f) riders.</li> </ul>	<p>No match funding is required.</p> <p>Use private sector in-kind match for feeder routes.</p> <p>Washington provides an ICB program through an RFP process; contracts for service in particular corridors identified by the State.</p>

## 2.5. Best Practices of Intercity Bus Service Funding

As part of the Transit Cooperative Research Program (TCRP) study (KFH Group, 2002), state ICB program managers were surveyed for input on specific ICB projects funded in each state. The survey received information on 267 ICB projects from 26 states. State program managers were further contacted to identify those projects that they thought would be good case studies. As a result, 50 best practices were identified. These projects were categorized by the following:

- The primary *type* of project (e.g. planning, operating, capital, and marketing);
- Whether the local agency served as a commission agent for an intercity carrier; and
- Whether the project involved a terminal.

The operating assistance includes intercity service and regional/feeder service. It should be noted that many of the 50 projects crossed categories; a number of them included both operating and capital components, and the local agent served as a commission agent. Some of the projects used funding solely from S.5311(f) funds, while others used funds from multiple

sources. The following table summarizes five best practices that had different project types. For more details about these five and other best practice project, refer to the TCRP study (KFH Group, 2002).

**Table 2.2: Examples of Best Practices of Intercity Bus Service Funding**

No.	Project Title (Agency)	Project Type	Project Description	Funding
1	Washington state’s planning study to identify an intercity network of statewide significance and guide funding assistance (WSDOT)	Planning Assistance	<p>This project mainly included the following tasks:</p> <ul style="list-style-type: none"> <li>• An inventory of existing services and facilities;</li> <li>• An identification of deficiencies in the current network and an analysis of future deficiencies;</li> <li>• A recommended list of projects to address service and facility deficiencies in the network;</li> <li>• A review of institutional barriers and opportunities;</li> <li>• A summary of resources that could be used to finance improvements; and</li> <li>• Recommendations and implementation strategies.</li> </ul>	The majority of this study was funded with federal Section 5311(f) funds for a total project cost of \$101,531. State funds provided the 20% local match.
2	Boise area intercity services operated by Commuter Bus. Inc. (Commuter Bus, Inc, Caldwell, Idaho)	Operating Assistance (Intercity Service)	<p>Two of Commuter Bus’ routes are subsidized with federal funds: intercity route and rural route. The rural route was once discontinued and was reinstated by Commuter Bus in 1995.</p> <p>Both routes are targeted to commuters traveling into Boise and serve other riders as well. To serve riders needing a wheelchair lift, the provider has applied for a grant to help acquire accessible vehicles.</p>	The state provides approximately \$60,000 annually in federal Section 5311(f) funds to the operator to help subsidize the service. The subsidy was set at 50% of operating expenses and 80% of administrative expenses.
3	OCCK, Inc.—North central Kansas Express (OCCK, Inc., Salina, Kansas)	Operating Assistance (Regional /Feeder Service)	OCCK, Inc. serves nine counties in the north-central region of Kansas. When Greyhound service on the route between Belleville and Salina along Highway 81 was discontinued, it was realized that transportation needs would go unmet. OCCK assigned one mid-size transit vehicle to this route. Once the vehicle arrives at Salina, transportation is provided to the riders within Salina to meet their various trip needs, typically medically related.	Funding was provided through federal Section 5311(f) with local funds from the community of Concordia, the medical facility in Salina, and in-kind services of OCCK.

**Table 2.2: Continued**

No.	Project Title (Agency)	Project Type	Project Description	Funding
4	New York State capital assistance for improving accessibility (New York State DOT)	Capital Assistance	The State of New York established a program of assisting ICB carriers to obtain funding for wheelchair lifts for their coaches and for providing operator and maintenance training through the FTA’s ORTBs Accessibility Program.	<p>For FYs 1999 and 2000, this program has used the following funds:</p> <ul style="list-style-type: none"> <li>• \$300,000 in FTA funding through the OTRBs (Over-the-Road Buses) Accessibility Program;</li> <li>• \$55,000 in state funds;</li> <li>• \$295,000 from the private bus carriers; and</li> <li>• \$250,000 in federal Section 5311(f) funds.</li> </ul>
5	Jefferson Lines, southern Minnesota marketing project (Jefferson Lines, Minnesota)	Marketing Assistance	Jefferson Lines conducted an ICB marketing study that involved passenger surveys, onboard interviews, and focus groups. This project also included the development of Jefferson’s website, media advertising, and a computer and information system for select rural Minnesota agencies.	The budget for this project was \$262,000 with 80% from the federal Section 5311(f) program and the remainder from Jefferson Lines.

## 2.6. Summary

This chapter summarized information from other states on intercity bus (ICB) services. The literature review found that many states have conducted studies to assess their ICB services and needs. However, a limited number of studies in rural/frontier states (Texas, North Dakota, and Washington) were identified. The North Dakota study investigated the factors affecting mode choices. It was found that increasing fuel cost would increase ICB ridership, especially among those in lower income groups. Through examining the characteristics of 18 intercity corridors, the Texas study ranked the corridors to decide which ones may need added intercity transit services in the future. The Washington study assessed the extent to which current ICB services served needs. The study concluded that areas with the highest population densities should be the areas on which bus network expansion is focused.

In addition to the above state studies, the literature review summarized eligible activities for funding and funding requirements in several states as presented in Table 2.2, which includes the rural/frontier states of Oregon, Colorado, and Washington. Match funding requirements vary among those states; Washington requires no local match, while Colorado and Oregon require 50% match of operating expenses and 10-20% of capital expenses. Colorado, however, will provide 100 % of funding for pilot projects. These three states indicated that they have used 15% of their 5311 funds toward ICB service. In Colorado, however, if the amount requested (by providers) or awarded is less than the full 15%, the policy is to request a partial Governor's Certification, and reprogram the balance of funding to other S.5311 projects.

At the national level, some trends in ICB services were identified as significant (KFH Group, 2010b). First of all, there is overall growth in utilization of the S.5311(f) program among states, due to needs and opportunities identified through the consultation process and additional FTA funding. Second, the majority of states are in the process of needs analysis, consultation (to support certification), or program implementation. Third, the number of states receiving certification of having no unmet rural ICB services appears to be declining. Under SAFETEA-LU, states planning to certify are required to undergo a consultation process. In many states, such a consultation process ended up identifying unmet rural ICB needs.

Two main methods for allocating S.5311(f) funds have been identified through the literature review. Some states such as Iowa, Colorado, Minnesota, and Pennsylvania use a grant

application process. Some other states (e.g. Washington) use a RFP/contracts process. California and Oregon use grants, RFPs, and a mixture of both approaches for ICB funding.

Federal S.5311(f) funds were used primarily by states for operating assistance, capital assistance, and marketing. States also used the funds for planning studies, administration, and other purposes. Many ICB service projects were funded for a combination of purposes, such as operating and capital assistance. In addition, some states assessed the highest priority to providing more ICB service routes and feeder service, while other states prioritized planning and marketing for ICB service. Hence, the allocation of funds depends on the state's interests and priorities in improving ICB service.

### 3. STATE SURVEY RESULTS

Although many state intercity bus (ICB) service studies were identified and reviewed in the previous chapter, the literature did not clarify how funding levels were determined, or how funds were used in states, especially in the rural/frontier states. In light of this, the research team conducted a survey of peer states with characteristics similar to Montana's rural/frontier nature, in an effort to understand funding practices, perceptions of ICB service, and ridership trends. The survey questionnaire is shown in Appendix A. Researchers used the online tool Survey Monkey to construct and collect the survey responses. The survey was distributed to public transportation directors (or equivalent) in ten frontier state Departments of Transportation (DOTs), including Colorado, Nevada, New Mexico, North Dakota, Oregon, South Dakota, Texas, Utah, Washington, and Wyoming. Nine of these ten state officials responded to the survey, with a 90% response rate. The survey results were analyzed, and are summarized herein.

#### 3.1. Current Funding Practices

When the peer states were asked about their current use of ICB funds, six of the nine respondents reported that their states used 15% of the 5311 funds for ICB service as directed by federal policy. Wyoming stated it used 20% of its 5311 funds for ICB service in Fiscal Year 2011. Wyoming's practice had been to set aside 15% of 5311 funds for ICB service, although from 2006 to 2010 there was a lack of sufficient projects to utilize the full amount allocated for this use. In addition, Wyoming allocated funds (unknown amounts) to rural feeder services and a regional commercial bus service (capital funds). Colorado has steadily been increasing the 5311 percentage from 6% to 14.8% in the past 6 years. South Dakota certified ICB service needs were being met and used a portion of the 15% toward ICB service. The exact percentage used was unclear, but approximately 4% was reported to be allocated to "ICB provider(s)."

The states were then asked to describe the process used to determine the amount of funds allocated to ICB service. Three states (Texas, Washington, and Oregon) reported that they used 15% of 5311 funds for ICB as required by the FTA formula, while Utah DOT stated they used 15% so long as sufficient projects/services were available to use the funds. In South Dakota and Colorado, ICB providers first submitted applications (budget requests) and then the applications were reviewed to determine which projects to fund. Colorado used an ICB Advisory Committee comprised of members from the Transit and Rail Division, the Regional Transportation District,

and the Colorado Public Utilities Commission to review and score applications, which were then considered for funding based on the scoring results. North Dakota only implemented its ICB grant application process beginning Fiscal Year 2011. Prior to this year, North Dakota utilized historical data, and the judgment of a solitary transit-focused DOT employee, to decide which projects to fund. Two other states (New Mexico and Wyoming) did not respond to this question.

The survey asked a question concerning prioritization of funding allocations. Three states (Utah, Colorado, and Washington) reported that they prioritized the funding based on results from statewide and regional ICB studies. Utah indicated it funded a shared route with Colorado, and the remaining funding was allocated based on Requests for Proposal (RFP) and a recent statewide ICB study that identified areas for ICB service. In Washington, mobility needs were first identified using demographics, and then routes were identified with towns where connections to the national intercity network could be made. In Colorado, the state indicated a preference to continue funding existing routes before initiating new routes. Texas DOT used an “interagency team” to review and score submitted proposals and prioritize funding. Oregon funded projects first through a Discretionary Grant Program, and then it provided ICB funds based on a “service gap analysis” and provided transit information investments based on identified “information gaps.” South Dakota reported that their presumably sole “ICB provider” was involved in yearly reviews to help prioritize allocation of funds. North Dakota stated they prioritized funding based on routes and needs prioritized by ICB providers. Two states did not complete this question.

Peer states were asked a question regarding how they awarded funds to potential ICB providers. Options included: “Using a grantor/grantee system with potential services applied for similarly to a grant”, or “Using a RFP/bid system with potential projects identified by DOT then issuing a RFP on which service providers then bid”, or “Using a different system”. The results show that four states (Colorado, North Dakota, South Dakota and Texas) used a grant type system and two states (Utah and Washington) used an RFP/bid system. Oregon reported that both processes were used. Two states did not answer this question.

The peer states were asked to provide information on any usage or funding allocation methods that they considered examples of best practices. Five of the states reported that none of their methods were considered best practices. Two states did not respond. Two states reported their best practices. Washington described their method of issuing an RFP then scoring

submittals using an independent panel of “transportation peers and partners”. Also, the use of a “2+2” service contract was cited, referring to issuance of a two-year contract to service providers with the option of a two-year extension if service is deemed satisfactory. Texas described its best practice as a competitive process with grant applications (proposals) scored by an “interagency team” and award amounts determined by a state transportation commission.

Survey results of funding practices in the nine states that responded are summarized in Table 3.1.

**Table 3.1: Summary of Funding Practices in Rural Frontier States**

State	Proportion of 5311 Funds <sup>a</sup>	ICB funding Mechanism	ICB Funds Prioritization and Determination Process	Best Practices
Colorado	14.8%	Using a grantor/grantee system	Funding allocation based on a Statewide and Regional ICB study. Process: a) ICB providers submit proposals b) ICB Advisory Committee reviews and scores applications c) The CDOT Division of Transit and Rail determines which projects to fund and at what level	N/A
New Mexico	15%	N/A	N/A	N/A
North Dakota	15%	Using a grantor/grantee system	2011 is NDDOT’s first year using the ICB grant application process. Funding allocation prioritized based on identified routes and needs listed by providers.	N/A
Oregon	15%	Both (grantor/grantee and RFP/bid systems)	15% as required by the FTA formula. Process: a) Discretionary Grant Program b) Contract Intercity Bus Service based on service gap analysis c) Transit Information Investments based on information gaps	N/A
South Dakota	4%*	Using a grantor/grantee system	ICB provider is included in yearly reviews for what projects can be funded at what amounts. Process: a) ICB providers submit budget requests b) Review budget requests (SDDOT) c) Make determinations	N/A

\* South Dakota noted they also fund rural feeder services and “Jefferson Lines” for an amount that was not specified in the response.

**Table 3.1: Continued**

State	Proportion of 5311 Funds <sup>a</sup>	ICB funding Mechanism	ICB Funds Prioritization and Determination Process	Best Practices
Texas	15%	Using a grantor/grantee system	15% as required by the FTA formula. Process: a) Submitted proposals are scored by an interagency team and funding amounts are recommended b) Funds awarded by Texas Transportation Commission	A competitive process (as described in the previous column) is used for funding ICB service.
Utah	15%	Using a RFP/bid system	15% as required by the FTA formula if sufficient projects are available. Funding allocation is based on a previous ICB study that identified areas for ICB service.	N/A
Washington	15%	Using a RFP/bid system	15% as required by the FTA formula. Funding allocation is based on an analysis of the 2007 Statewide Rural Intercity Bus Plan. Process: a) A review of state demographics was undertaken to identify areas with mobility needs b) Based on the demographic analysis, routes to towns where connections to the national intercity network can be made are identified and prioritized for funding	Proposals are scored by an independent panel of transportation peers and partners along a proposed route. Once awarded, a 2+2 purchase of service contract is signed. This allows for an initial 2-year contract, with an option to extend another two years if the contractor's performance is satisfactory.
Wyoming	20%	N/A	N/A	N/A

<sup>a</sup>The percentages of 5311 funds used for ICB service in the most recent year.

### **3.2. Promoting ICB Service**

The peer states were asked if any state agency actively promoted ICB service. Seven of the nine states responded to the question, with six states reporting that they did actively promote ICB services. Colorado noted frequently issuing press releases on new ICB routes, stations, schedules, equipment, and other information. Colorado also pays for newspaper advertising of routes and schedules and is currently developing a transit map that will include ICB service. Washington “promotes ICB service at conferences, both regionally and nationally” as well as contractually expecting the ICB providers to maintain websites and advertise on radio, television, and newspaper media. In addition, Washington offers online ticketing and reservation capabilities. Other states said their actions were minimal, but included website information with routes and schedules. Information about the strategies used to promote ICB service is summarized in Table 3.2.

**Table 3.2: Summary of Strategies in Promoting ICB Service**

State	Strategies in Promoting ICB Services
Colorado	a) Frequently issues press releases on new ICB information b) Pays for newspaper advertising of routes and schedules c) Currently developing a transit map
North Dakota	First year (2011) in promoting ICB service
Oregon	a) Both printed and electronic ICB service schedules b) Maintains websites, including Trip Check-TO transit information <a href="http://www.tripcheck.com/rtp-to/cityCounty/cityCountySearch.aspx">http://www.tripcheck.com/rtp-to/cityCounty/cityCountySearch.aspx</a> and Oregon-POINT service ( <a href="http://www.oregon-point.com">www.oregon-point.com</a> )
South Dakota	a) Press releases when a new rural transit provider may become a feeder service b) Supports websites
Texas	Marketing is an eligible expense for project funded through 5311(f).
Utah	Does not actively promote ICB services
Washington	a) Promotes the ICB service at both regional and national conferences b) Promotes the programs through cooperative assistance (providing documents) to other states c) Each ICB route is named after products produced in the particular part of the state (e.g., Gold Line, Grape Line, Apple Line)

### 3.3. Unique and Exceptional Projects

The peer states were asked if they had any unique or exceptional projects completed or underway to share in the survey. Seven of the nine respondents answered this question. Two states did not have project examples to share, but five states did provide examples. Colorado described funding two ICB routes using “the in-kind match mechanism where [they] fund up to 100% of the operating deficit”. Colorado also had examples of constructing stations that combine ICB and local transit services. Utah cited its coordination with Colorado for a shared route as unique. Washington claimed its statewide rural ICB plan update is underway, which will examine the performance of existing services, investigate opportunities for improvement, and

consider “methods of launching [existing] routes on Google Transit”. Two other states both provided examples of combining transit centers to link multiple services and routes.

### 3.4. Service and Ridership Characteristics

Question 12 of the survey asked if ICB routes/services in each respective state had increased or decreased in the past two years. Question 13 asked about changes in ICB ridership in each respective state in the past two years. Two states (South Dakota and Texas) indicated they were unsure if services had changed, and two states (Texas and Oregon) indicated they had not yet analyzed ridership data.

As indicated by the responses of the seven states responding to these two questions (Table 3.3), it appears that changes in ICB routes/services affect ICB ridership.

**Table 3.3: ICB Service and Ridership Analysis**

State	Services	Ridership
Colorado	Increased	Increased
North Dakota	No Change	No Change
Oregon	Increased	Don't Know
South Dakota	Don't Know	Decreased
Texas	Don't Know	Don't Know
Utah	No Change	No Change
Washington	Increased	Increased

Question 14 asked if there were any other significant changes in ICB services in the respondents' state. North Dakota reported an increased need for services in a particular “oil area” due to a rapid increase in population, and Colorado reported their efforts to “interline” ICB services with local transit.

### 3.5. Issues and Barriers

When the states were asked to identify the most important issues/barriers facing ICB service, seven states responded. Colorado reported it would be helpful if 5311(f) funds could be

used to fund 100% of an operating deficit without having to get in-kind letters from commercial carriers. In addition, Colorado reported that many places have two different transportation stations (ICB or local transit) in the same city/town. In addition to Colorado, two other states (Utah and Washington) reported general funding barriers. Utah reported an issue concerning support from DOT and stated, “They [DOT] have approved our projects, but have not been happy about funding private for profit”. Potential budget cuts were an issue reported by Washington. As Washington State does not provide any state funding for ICB services, potential federal budget cuts may result in reduced ICB services in key corridors, and cause detrimental effects on Washington ICB service levels and future network expansion. Texas cited the current economy and increasing operating costs of providing service making it a challenge for the private ICB sector to remain profitable. Moreover, negative perceptions about ICB patrons and media coverage of ICB-related accidents may discourage ridership. North Dakota reported that a lack of ICB providers in the state was a barrier, but it may not be an issue for the current year. Another specific issue was brought to light when the final question asked for respondents to “provide any other comments you may have about ICB services, either from a national perspective, or related to services in your state.” Colorado reported a “need [for] FTA clarification and guidance on using the in-kind match mechanism such as whether capital expenses can be rolled into total operating cost when applying the in-kind match”.

### **3.6. Summary**

The research team conducted a survey of ten peer states to understand ICB funding practices. The survey received feedback from nine rural/frontier states. Of the nine states, six of them (New Mexico, North Dakota, Texas, Utah, Washington, and Oregon) used 15% of their 5311 funds for ICB services (the percentage was determined simply based on the FTA formula of allocating 15% of 5311 funds to support rural ICB services). Two other states (South Dakota and Colorado) used less than 15% of the 5311 funds. These two states used a grantor/grantee system to award funds. It is noted that Colorado used 14.8% of its 5311 funds in FY 2011, up from 6% six years ago.

Overall, the prioritization and determination of funds for ICB projects/services include two aspects. First, states may have identified areas (or routes) for ICB service. This was usually done through regional and/or statewide ICB studies. States conducting ICB studies to identify routes (areas) were found to use an RFP/bid system to award funds. Second, for those states

using a grantor/grantee system to award funds, the general process of determining funds includes three steps: 1) submitting proposals by ICB providers; 2) reviewing and/or scoring applications; and 3) determining funds for projects.

Washington, Oregon, and Colorado reported increased ICB services in the past two years, and Washington and Colorado also reported increased ridership in the past two years. It was unknown in Oregon if ridership has increased. The results suggest a positive effect of increased ICB services on ridership, although not all of the states surveyed have analyzed their ridership in the last two years. Moreover, the survey results showed that Washington, Oregon, and Colorado represent three of the six states that have been actively promoting ICB services.

Funding was the most commonly reported challenge facing ICB services. Funding issues included policy on the use of in-kind match, potential federal budget cuts that could be detrimental to local ICB services, and lack of DOT support for using funding to support private, for profit companies.

## 4. PUBLIC SURVEY RESULTS

One purpose of this project was to provide insight into the use of intercity bus (ICB) services in Montana and the public attitudes toward the service. Two surveys were conducted to achieve this objective. A survey of riders of ICB in Montana was completed to understand users' attitudes and ridership characteristics. Further, a random telephone survey of the public was performed to get more information on attitudes toward, and uses of ICB service in the state. The phone survey was administered by the Center for Applied Economic Research at Montana State University-Billings.

### 4.1. Rider Survey

The rider survey was administered at bus stations in Billings, Bozeman, and Butte. Riders waiting to board, just exiting, or taking a layover break from ICB were asked to complete a questionnaire about their views and use of ICB service. Riders were later split into two groups for analysis: those who were Montana residents ("MT Residents") and those who were not ("Other Respondents").

The survey was completed by 135 respondents; 42 of those respondents were Montana residents, with 93 non-Montana or "other" respondents. Only 10% of all riders responding were under 18 years of age; 96% percent of Montana respondents were adults compared to 87% of other respondents. Montana respondents were 59% (25 out of 42) male, 41% female. Out of state respondents were 51% (47 out of 93) male, 49% female. Survey questions are presented in Appendix B. The results of the survey are summarized and presented in the remainder of this section.

Most riders surveyed (58%) were driven to the bus station by someone to initially board an ICB. Montana residents (14%) walked more often than non-Montana residents (8%) to their boarding bus station. Other methods used by respondents to access the ICB bus station included local bus service, other ICB services, and driving their own vehicles. Figure 4.1 shows how all responding riders initially arrived at an ICB station.

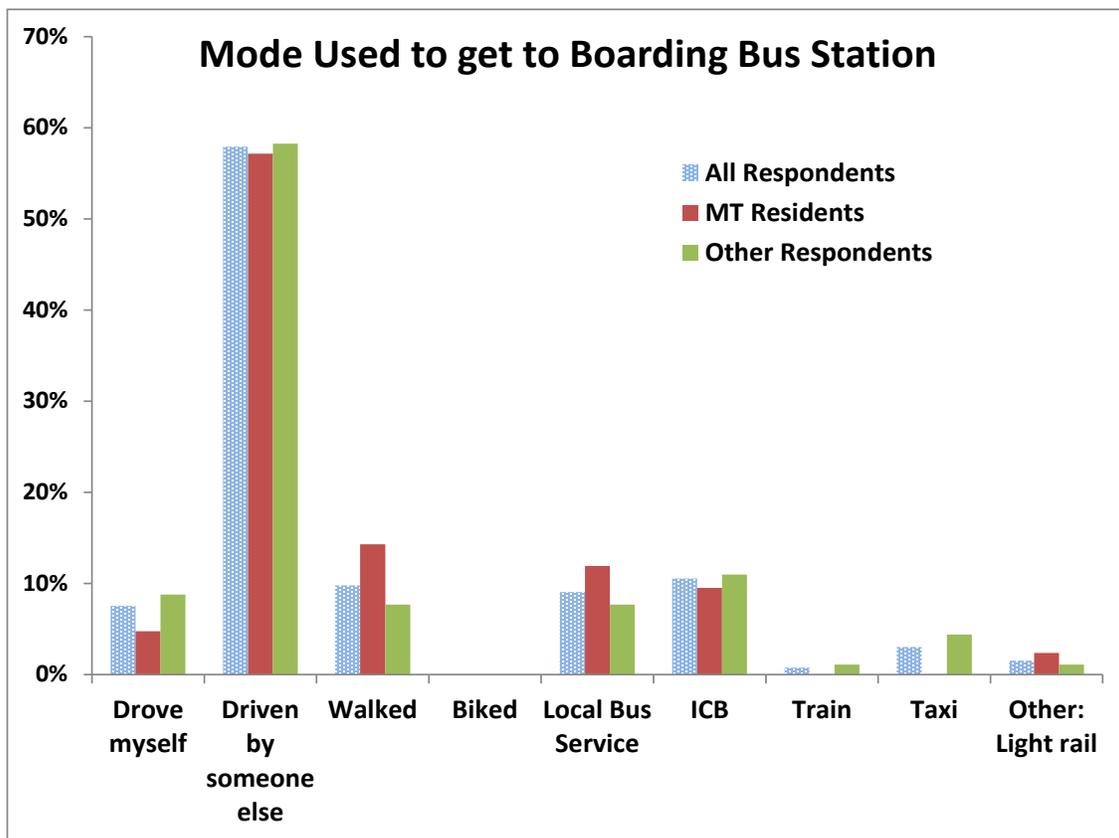


Figure 4.1: Mode Used to Arrive at Boarding Bus Station

Riders were also asked how they would get to their final destination upon exiting the ICB. Most people (64%) responded that someone would pick them up in a vehicle. This response was more common among Montana residents (76%) than other respondents (58%). Only 5% of Montana residents stated that they would walk to their final destination compared to 11% of other respondents as shown in Figure 4.2.

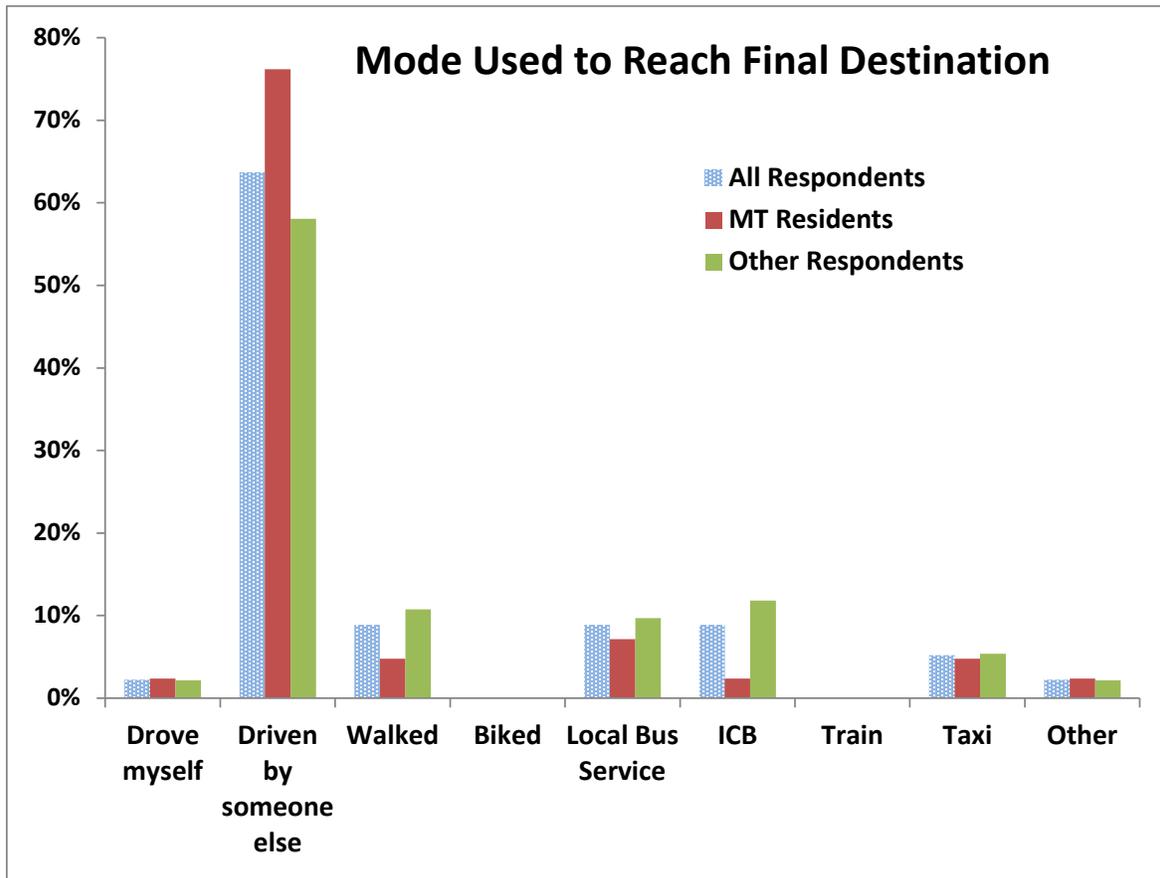


Figure 4.2: Mode Used to Reach Final Destination

The most common purpose for using ICB services was visiting family or friends (51%), with nearly 20% of riders using ICB services for work purposes. There was a higher percentage of “other” or non-Montana respondents who used ICB services for work purposes. Riders who were Montana residents tended to use ICB services more than other riders for medical and school purposes, while other riders used ICB services more for recreation purposes (Figure 4.3). The results may be slightly skewed due to the time of year the survey was conducted (June 1-16) as most schools were not in session, and more people may have been traveling for summer recreational purposes.

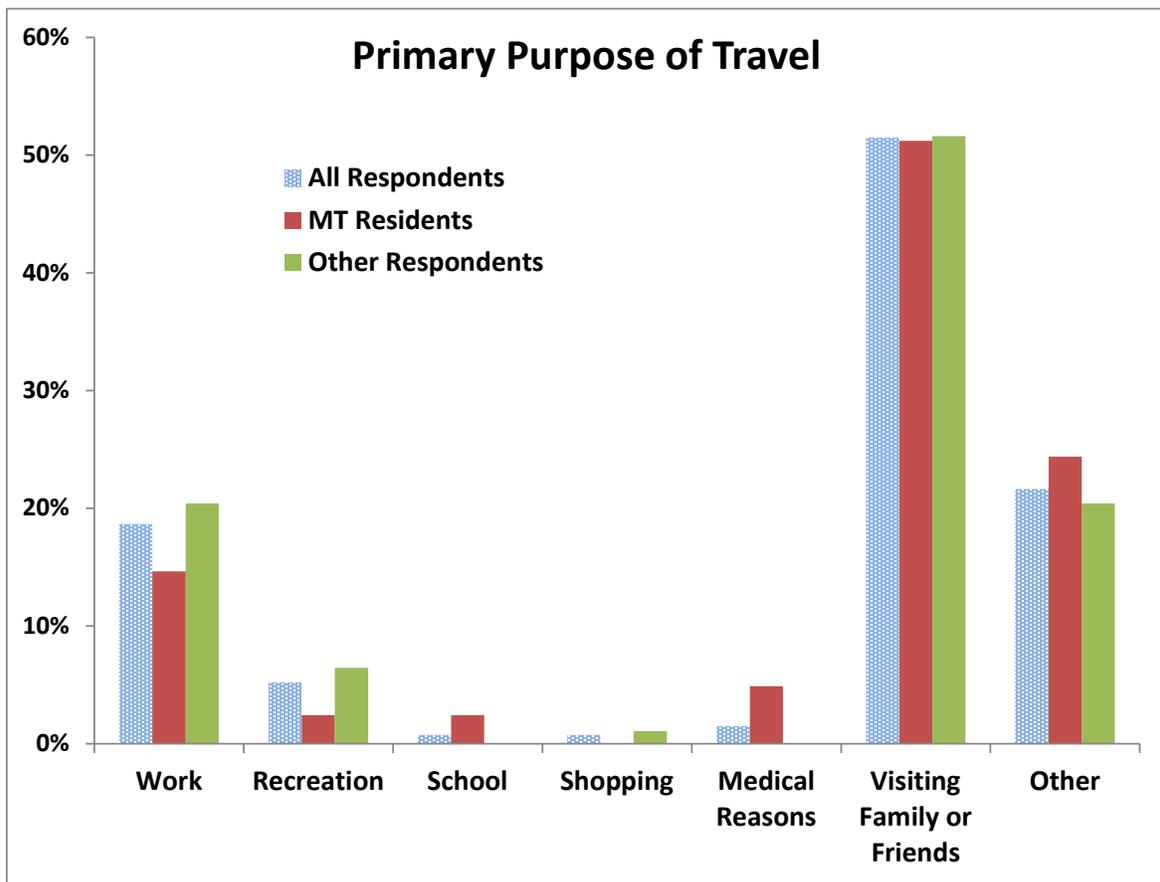


Figure 4.3: Primary Purpose of Travel

Of those riders who answered “other” for their reason for traveling, the majority was either “going home” or “moving.”

Riders were asked how they were made aware of the ICB route/service that they were currently using. Most respondents found the service using an internet search or through word of mouth. Many of the “other” responses included: calling the bus station, visiting the bus station, or previous experience using the service. No Montana respondents and few other respondents (6%) had become aware of the service from a print, radio or TV advertisement. Figure 4.4 shows how respondents were made aware of the service.

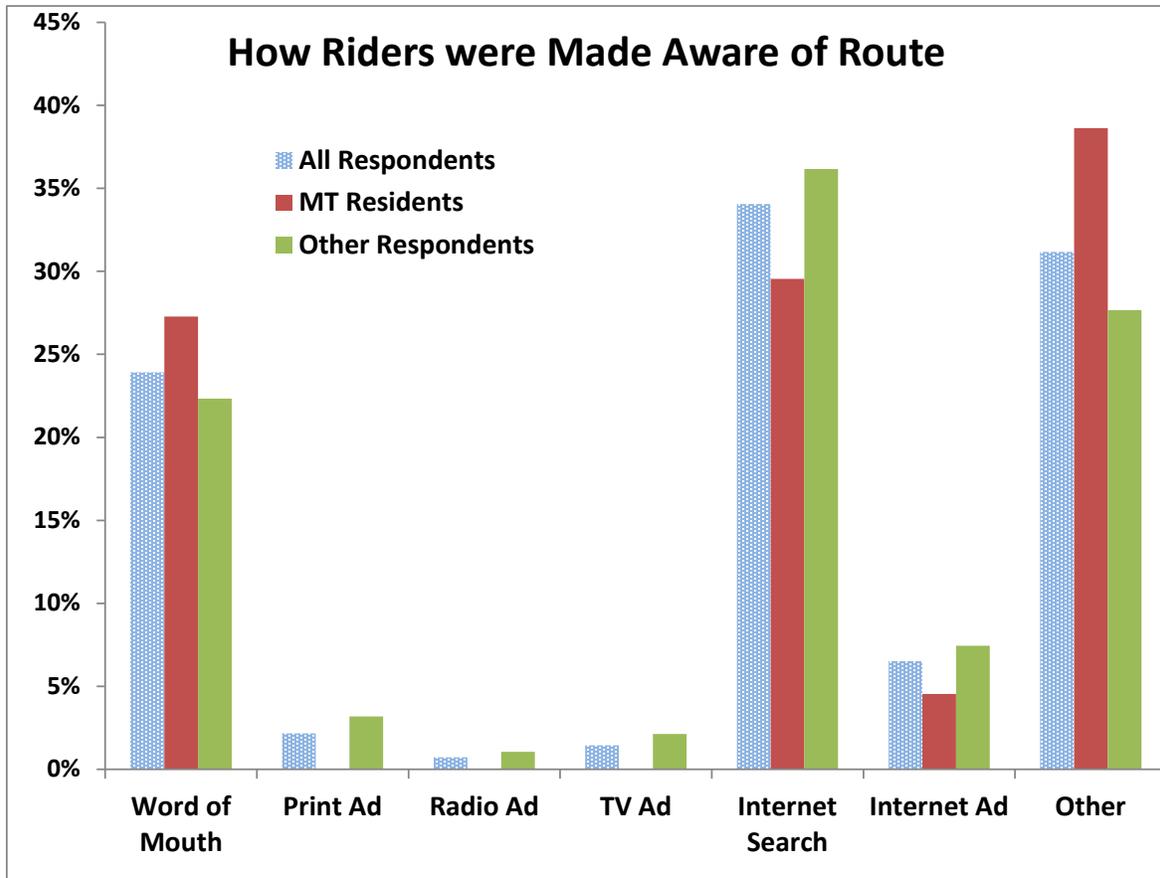


Figure 4.4: How Riders were Made Aware of Route

Riders were then asked to rate their level of satisfaction with the ICB information available. Sixty-five percent of all respondents were at least somewhat satisfied with the information available and 69% of Montana respondents were satisfied or somewhat satisfied. Only 1% of other respondents were somewhat dissatisfied or dissatisfied compared to 12% of Montana respondents. Figure 4.5 shows the levels of satisfaction with ICB information for all respondents.

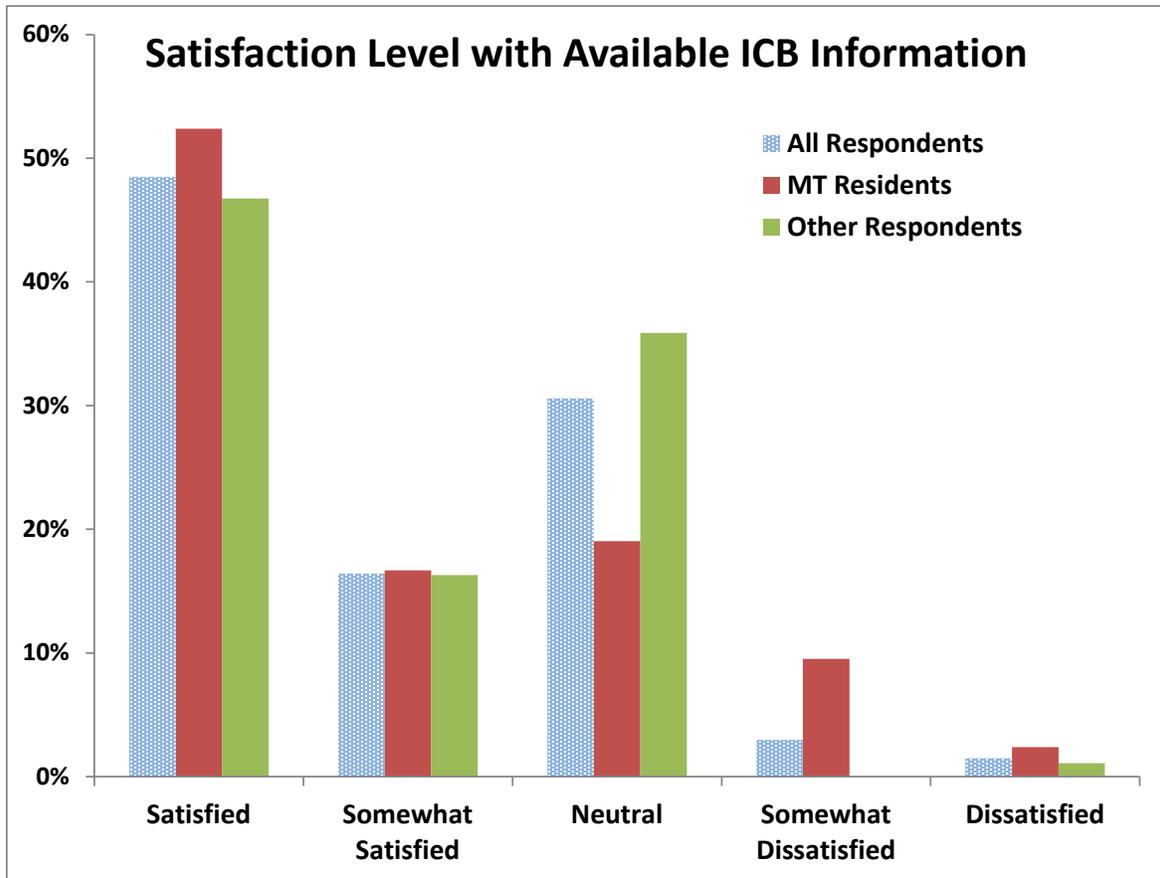


Figure 4.5: Satisfaction Level with Available ICB Information

When riders were asked about the factors that lead to their use of ICB services, the most common response was lack of access to a vehicle, reported by 26% of Montanans and 21% of other respondents. Other common factors were cost of service, gas prices, ease of use, and lack of ability to drive. Safety, enjoyment, and frequency of service were all reported by less than 5% of the respondents. Figure 4.6 shows all factors leading to ICB use.

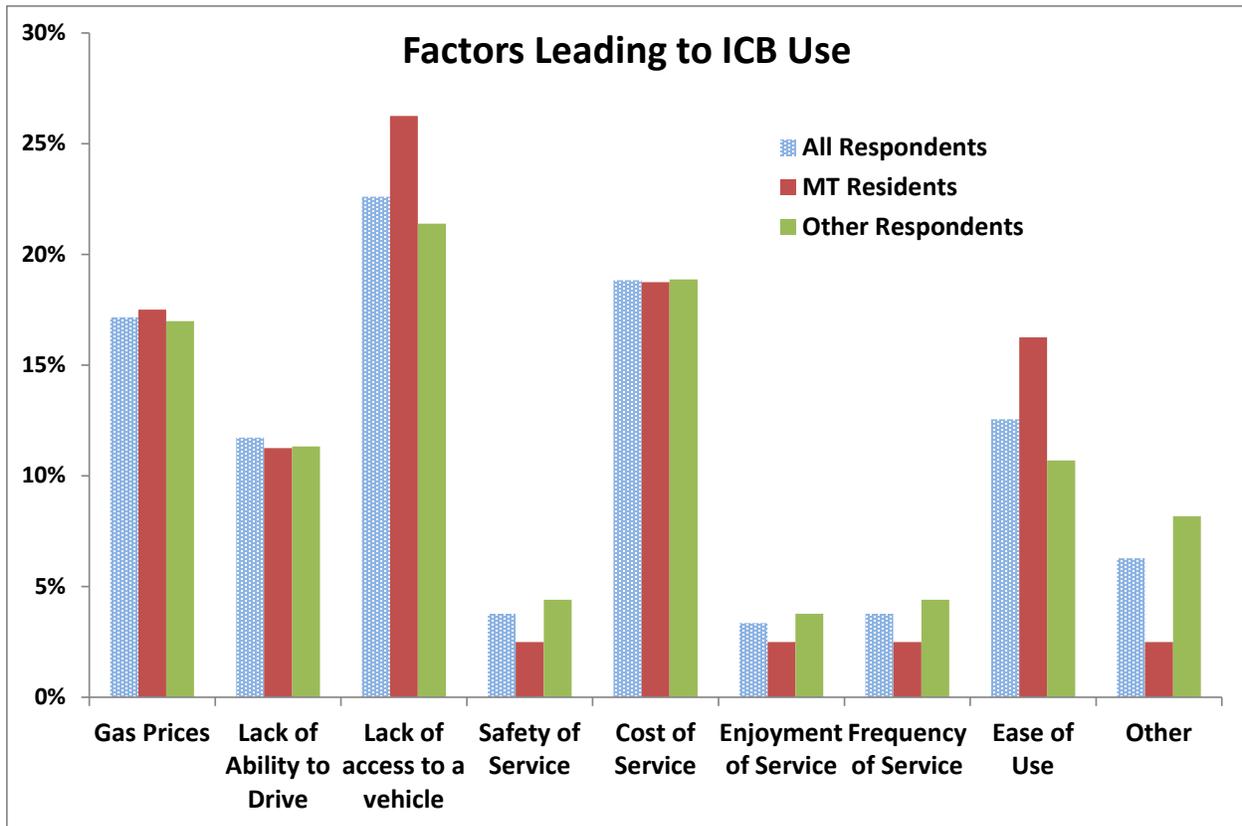


Figure 4.6: Factors Leading to ICB Use

Riders were asked how they would have made their trip if ICB services were not available. Twenty-four percent of respondents would not have made the trip while 30% would have taken an airplane. Seven percent of respondents chose the “other” option, and nearly all of those wrote in hitch-hiking as their alternative travel option. Figure 4.7 shows how respondents would have traveled if no ICB services were offered.

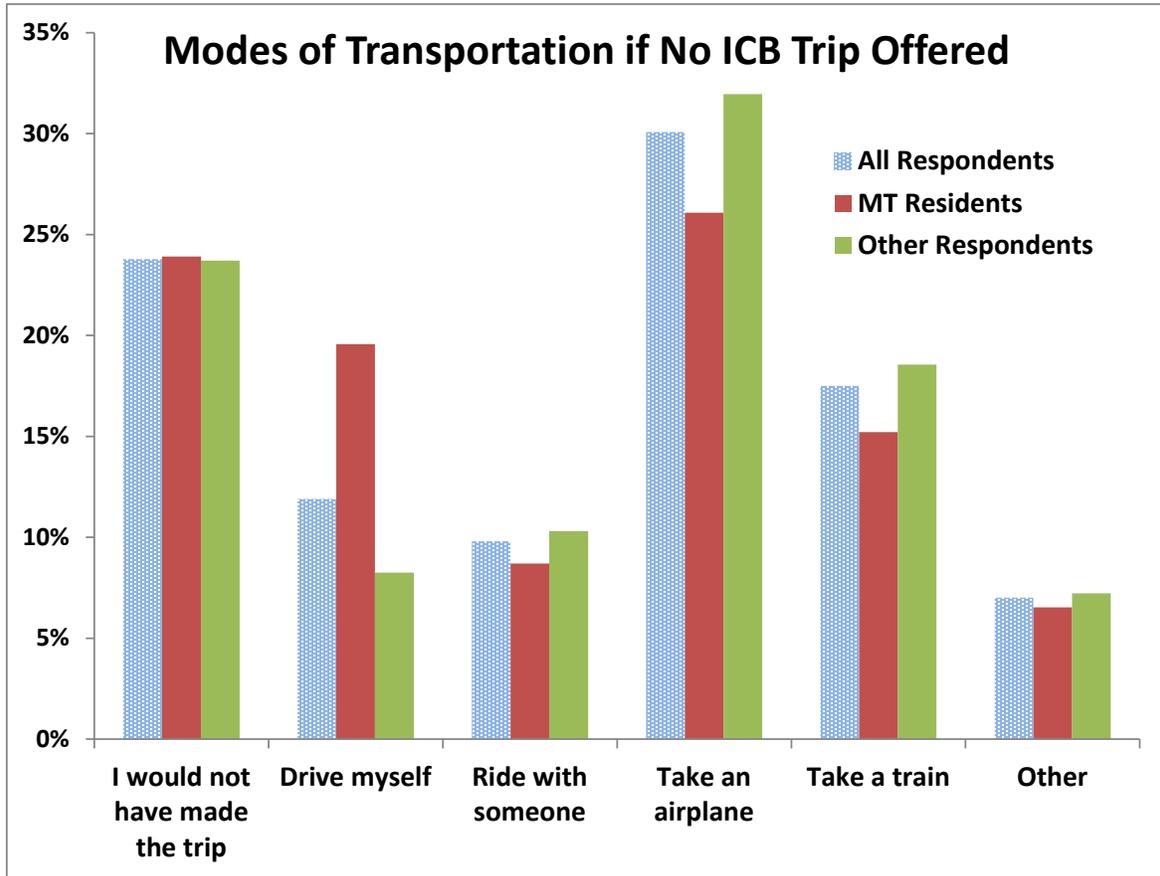


Figure 4.7: Modes of Transportation if No ICB Trip Offered

When riders were asked about their level of satisfaction with the frequency of ICB services, 52% of Montanans were satisfied, with 19% being somewhat satisfied. Figure 4.8 shows the levels of satisfaction with ICB frequency.

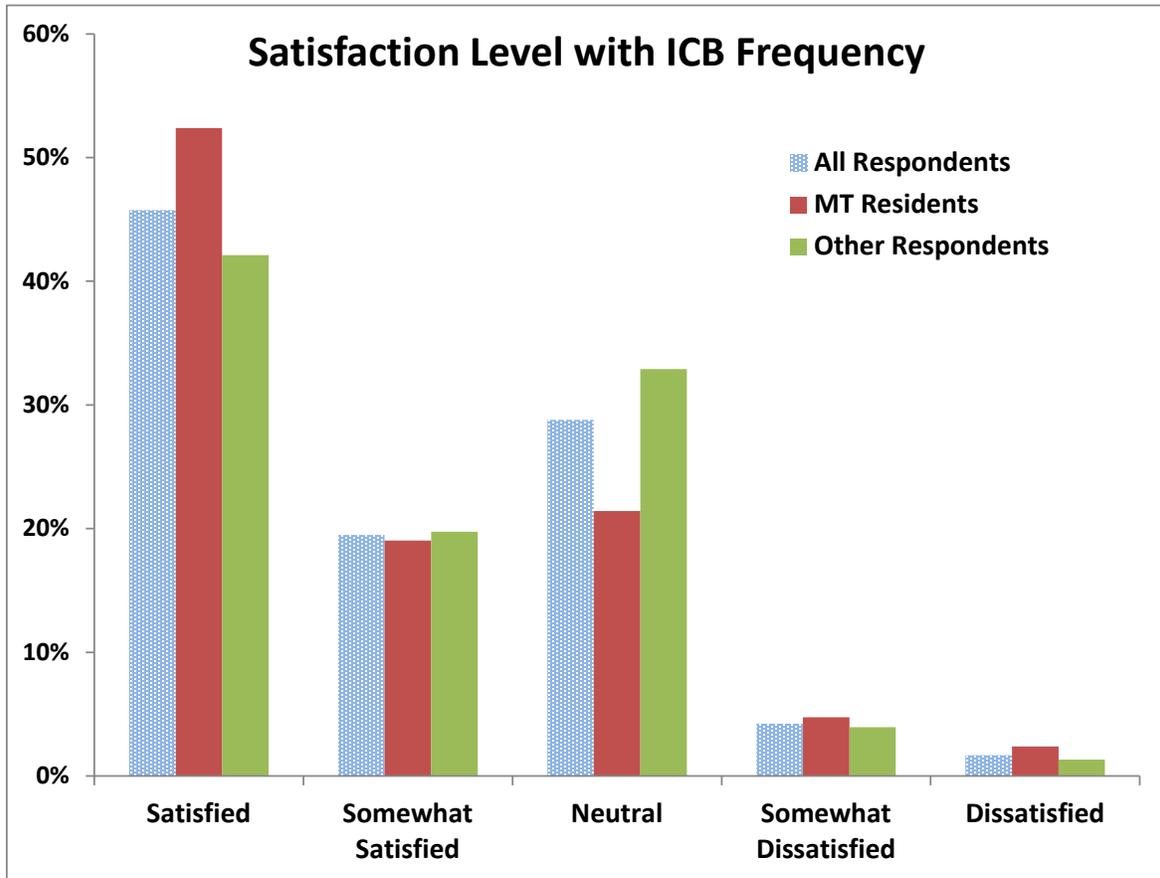


Figure 4.8: Satisfaction Level with ICB Frequency

Satisfaction level with the ICB routes available in Montana yielded similar results. Fifty percent of Montana riders stated they were satisfied with the routes, and 19% were somewhat satisfied (Figure 4.9).

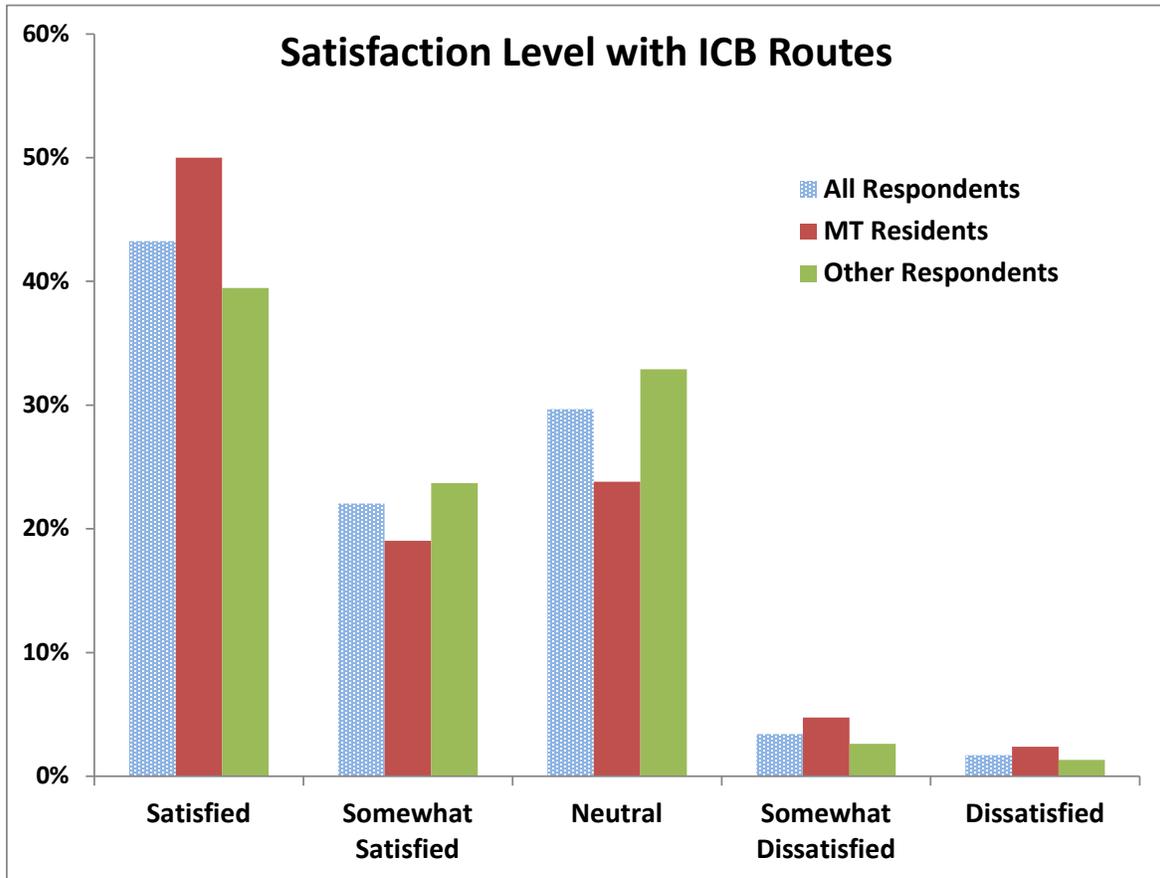
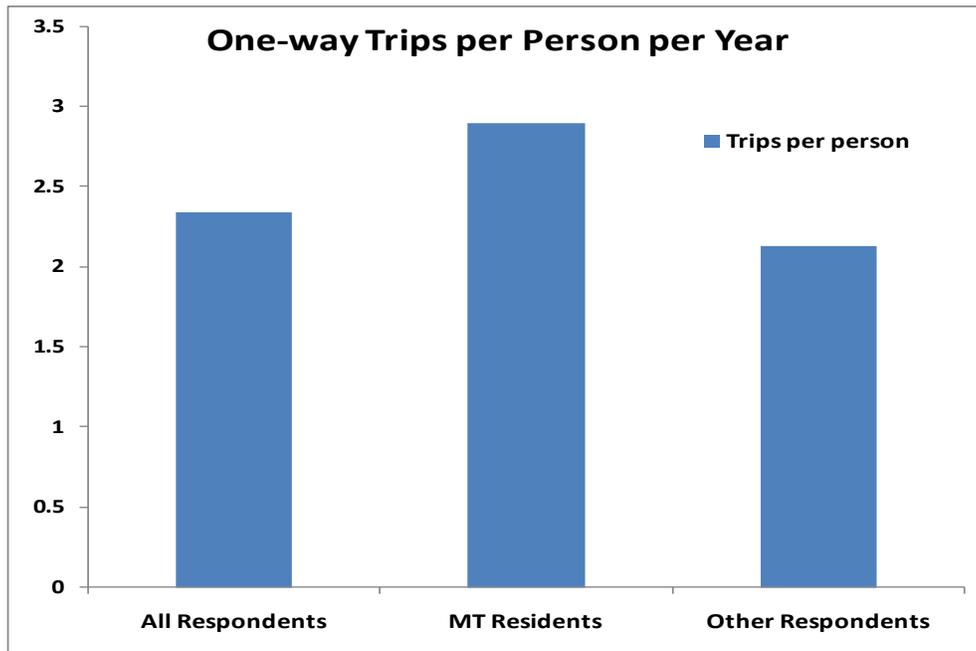


Figure 4.9: Satisfaction Level with ICB Routes

By combining the responses highlighted in Figures 4.8 and 4.9, roughly 70% of Montana riders are satisfied or somewhat satisfied with ICB services. This compares to 63% of other (or non-Montana resident) riders. Seven percent of riders who are Montana residents are somewhat dissatisfied or dissatisfied with the service, compared to 5% of other riders. Thirty-three percent of other riders had a neutral view of ICB services, while only 23% of Montana riders had a neutral opinion.

The survey found that Montana respondents made more one-way trips per year on average than other respondents. Montanans reported 2.9 one-way trips per year per person and other respondents reported 2.1 one-way trips per year per person. Figure 4.10 shows all trip rates reported.



**Figure 4.10: One-way Trips per Person per Year**

It is noted that the number of trips is not additive, but rather a reflection of the number of trips taken by riders who are Montana residents, or other riders (non-Montana residents).

Riders were asked if they would use ICB services to travel to destinations within Montana or between Montana and other states. Other respondents understandably reported an 87% likelihood of use between Montana and other states. Montanans also reported a higher likelihood of using ICB services to travel to other states, with 66% more likely to use it to other states and 34% more likely to use it within Montana (Figure 4.11).

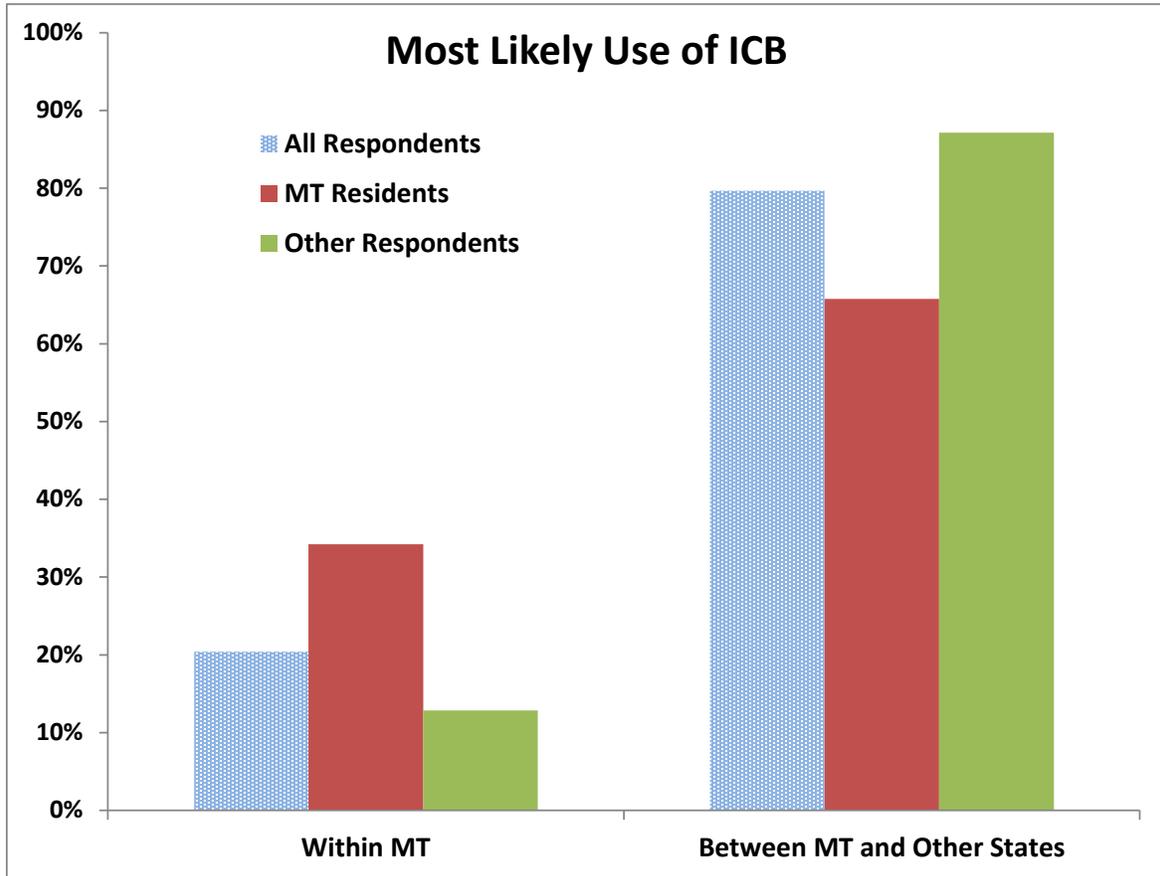


Figure 4.11: Most Likely Use of ICB

It was found that 83% of respondents used local transit services infrequently or never. Responses to the question about use of local transit services are shown in Figure 4.12.

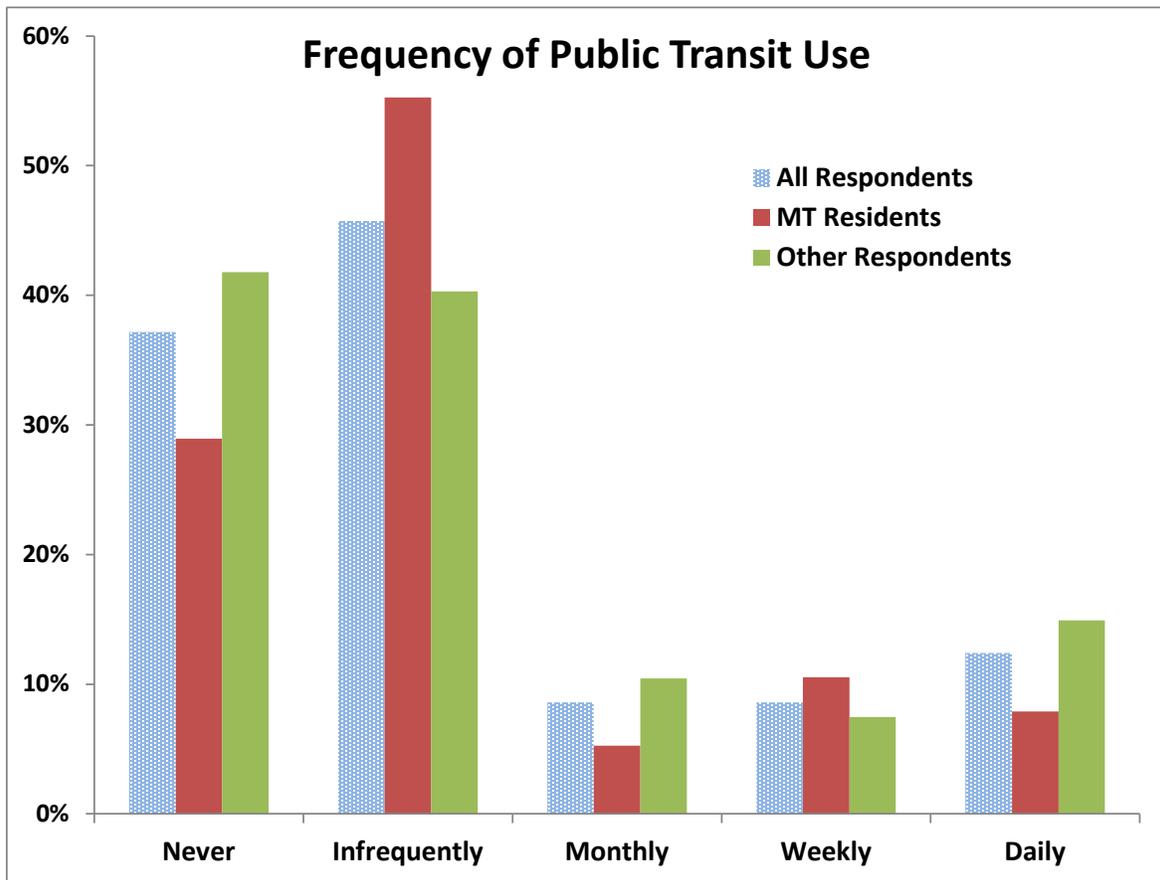


Figure 4.12: Frequency of Public Transit Use

The results highlighted in Figure 4.12 are somewhat counterintuitive, as one would tend to think that people who use ICB services would also use local transit services. However, it could be that the ICB riders are from communities with limited or no local transit services.

As shown in Figure 4.13, ICB riders tend to have a younger demographic, with over half the riders 35 years old or younger. However, the age distribution of riders was found to be quite different for Montana residents and other (non-Montana) residents. For the other riders, each age bracket has a reduced number of respondents. For riders who are Montana residents, however, there are more riders in the 46-55 year old range, than in the 25-35 year old range. Further, 7% of the Montana riders were in the 56-65 and 66-79 year old ranges, compared to 5% in the 36-45 year old range. Further research into the age distribution of riders could have an impact on the design and marketing of ICB services in Montana.

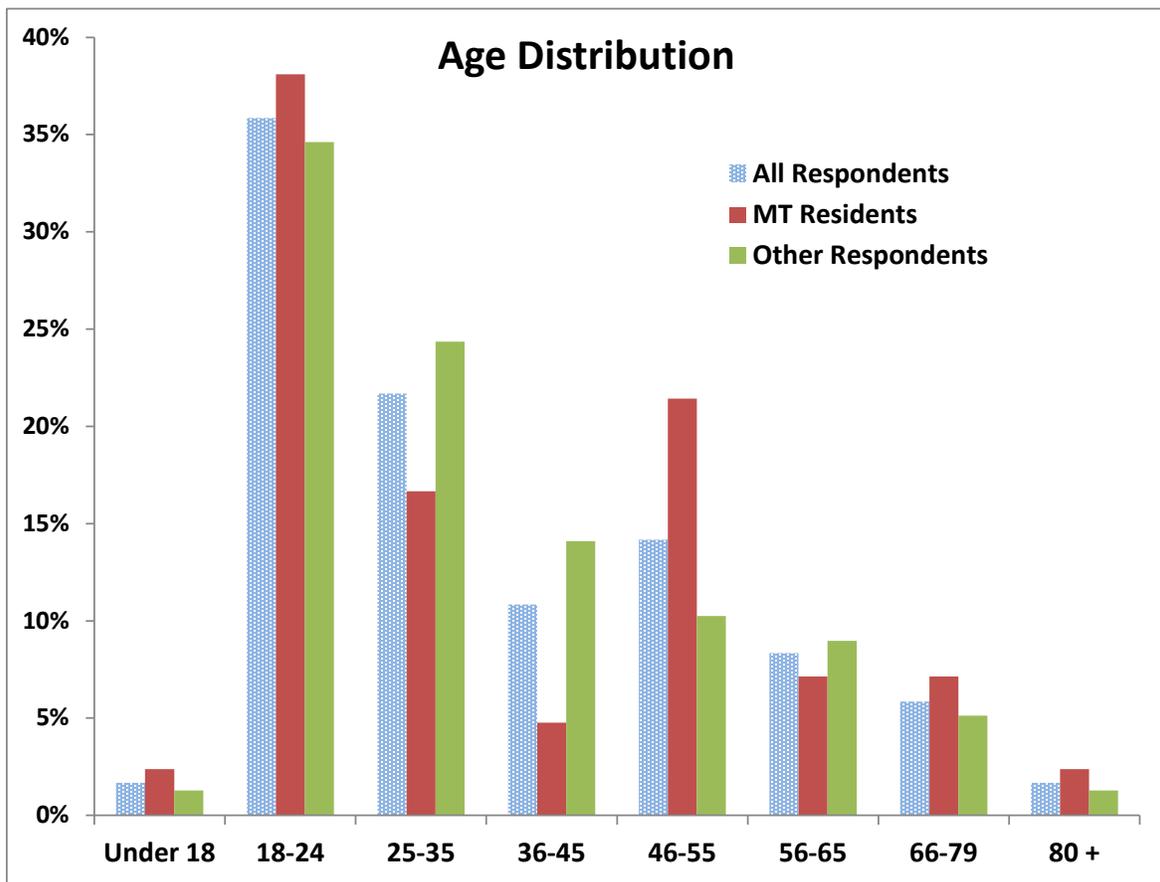


Figure 4.13: Age Distribution

The household income distribution of respondents showed that over 50% of all respondents were from a household with income of less than \$15,000 per year. The income distribution of “other” respondents showed a pattern of fewer respondents in each increasing income bracket. Montana respondents had a slightly different pattern, with the most significant difference being a second peak in the \$50,000 - \$59,999 household income bracket. The household income distribution of respondents is shown in Figure 4.14.

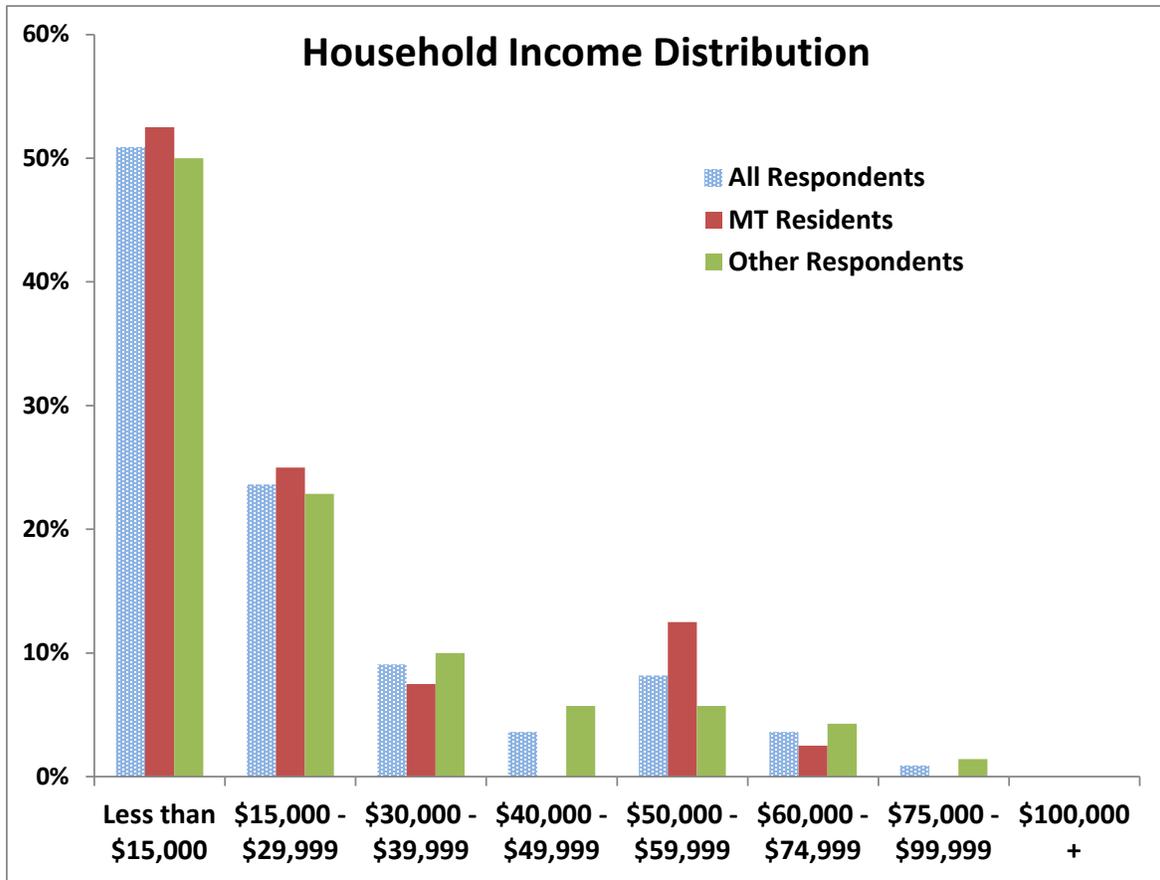


Figure 4.14: Household Income Distribution

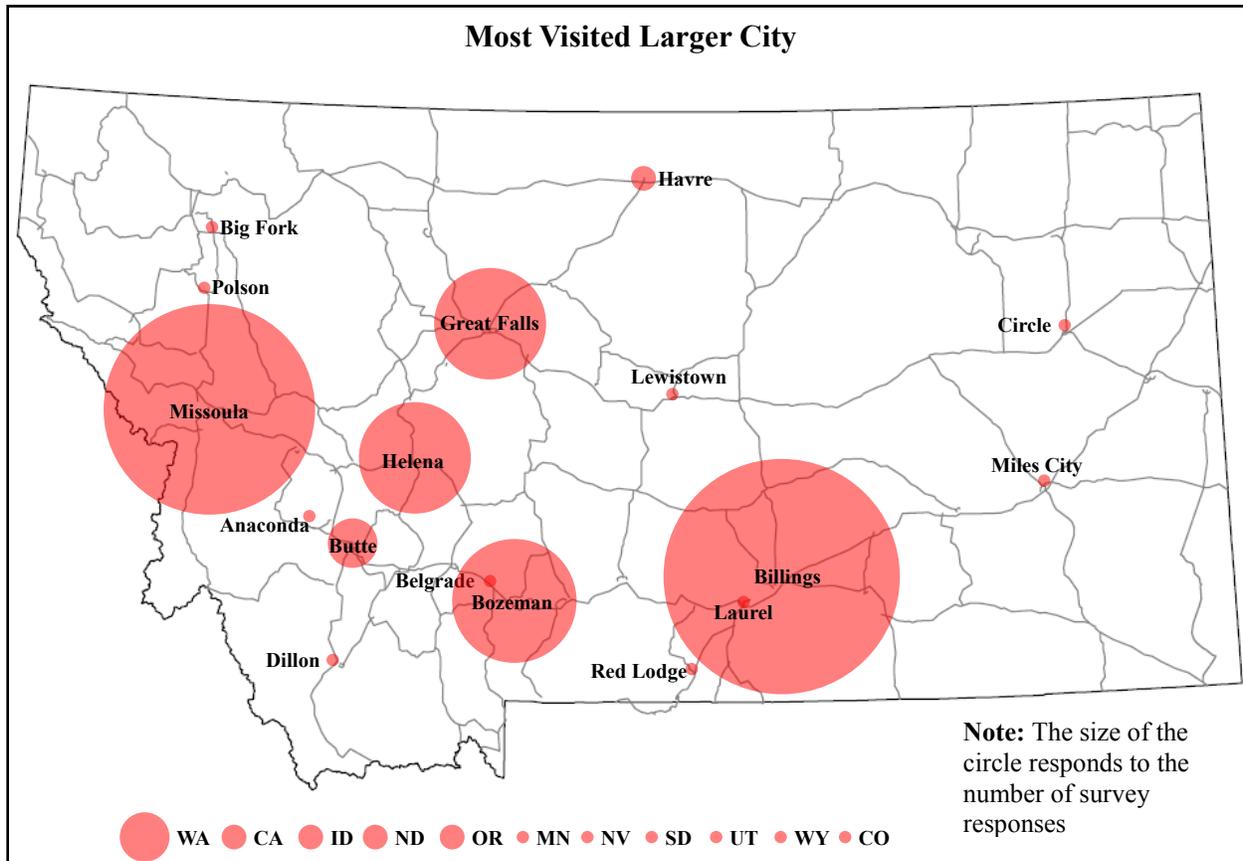
In summary, most riders were using ICB to visit family or friends. Respondents indicated that they knew about the service through word of mouth, or an internet search. Other methods included calling or visiting a bus station, or previous experience with the service. Most respondents indicated they were satisfied with the amount of information available about the service, and the primary reason they were using the ICB service was due to a lack of access to a vehicle.

While nearly 25% of respondents would not be able to make a trip without ICB, a higher percentage would have taken an airplane had ICB not been available. Roughly 60% of respondents were somewhat satisfied or satisfied with the ICB routes and frequency of service.

#### **4.2. Public Phone Survey**

The phone survey group was also split into two groups for analysis: those who lived in a community serviced by ICB and those who lived in communities without ICB service. Communities were said to have ICB service if they were within 25 miles of an ICB bus station, which was served by a “major ICB carrier”. For the purposes of this analysis, a “major ICB carrier” is defined as Greyhound, Rimrock Stages, Arrow/Black Hills Stage Lines, and Jefferson Lines. Using this definition for categorical purposes, 380 respondents (62%) were from communities served by ICB, and 148 (24%) of respondents were determined to reside in places without ICB service. Eighty-two respondents (14%) could not be categorized, so were included in the “all respondent” category, but were not part of either the “with ICB” or “without ICB group”. Ninety-five percent (95%) of all respondents had not ridden ICB in the past 12 months, and this result was similar for both groups, those with and without ICB service. Survey questions that were part of the phone survey are presented in Appendix C. The results of the phone survey are summarized and presented in the remainder of this section.

When respondents were asked to which larger city they most often traveled, Billings was the most common response followed by Missoula, Bozeman, Great Falls, and Helena. Other cities include Butte, Belgrade, Havre, Big Fork, Polson, Anaconda, Dillon, Lewiston, Laurel, Red Lodge, Circle, and Miles City. Figure 4.15 shows a map with the size of the circle representing the frequency of responses. Some people responded that they most often visited cities in other states and those responses are also shown per state (at the bottom of the figure). People traveling out of state visited cities in Washington most frequently.



**Figure 4.15: Most Visited Larger Cities and States**

The most visited cities and states included Billings (19%), followed by Missoula (17%) and Bozeman (10%). Other cities included Great Falls and Helena (9% each) and Butte (4%). Washington (4%) was the only state having more than two percent of the responses. Cities and states having two percent of the responses include: Havre; California; Idaho; North Dakota and Oregon. The other cities and states listed on Figure 4.15 had only one percent of responses.

Respondents were asked how many miles they traveled to their most often visited larger cities. The most common response was between 100 and 199 miles; and this response was more prevalent for those residing in communities without ICB service. More than 80% of respondents traveled over 50 miles to their most visited larger cities. Figure 4.16 shows the miles to the most visited larger cities by community type.

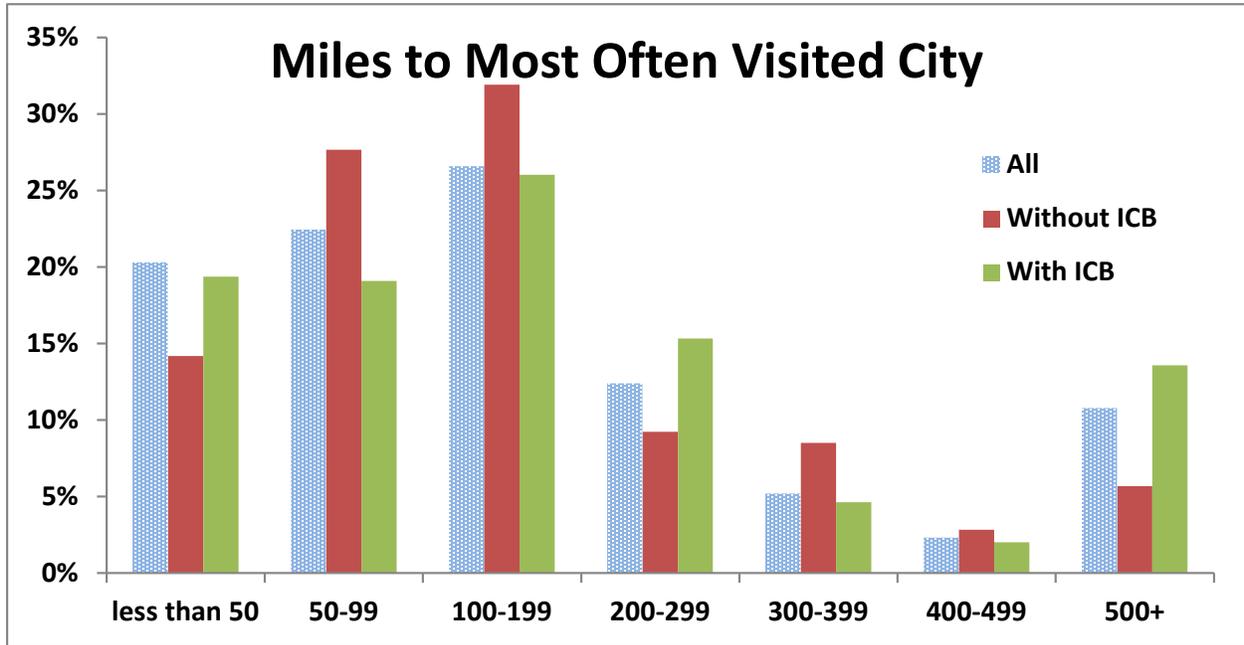


Figure 4.16: Miles to Most Often Visited Cities

The respondents were then asked about their vehicle fuel characteristics. Ninety-three percent (93%) of respondents drove vehicles using gasoline fuel, 6% drove vehicles using diesel fuel and the remaining 1% drove an alternatively fueled vehicle or had no vehicle. The most common fuel efficiency for the vehicles of people living in areas without ICB was 21-25 miles per gallon and 16-20 miles per gallon for those living in areas with ICB service. Figure 4.17 shows the fuel mileage for all respondents.

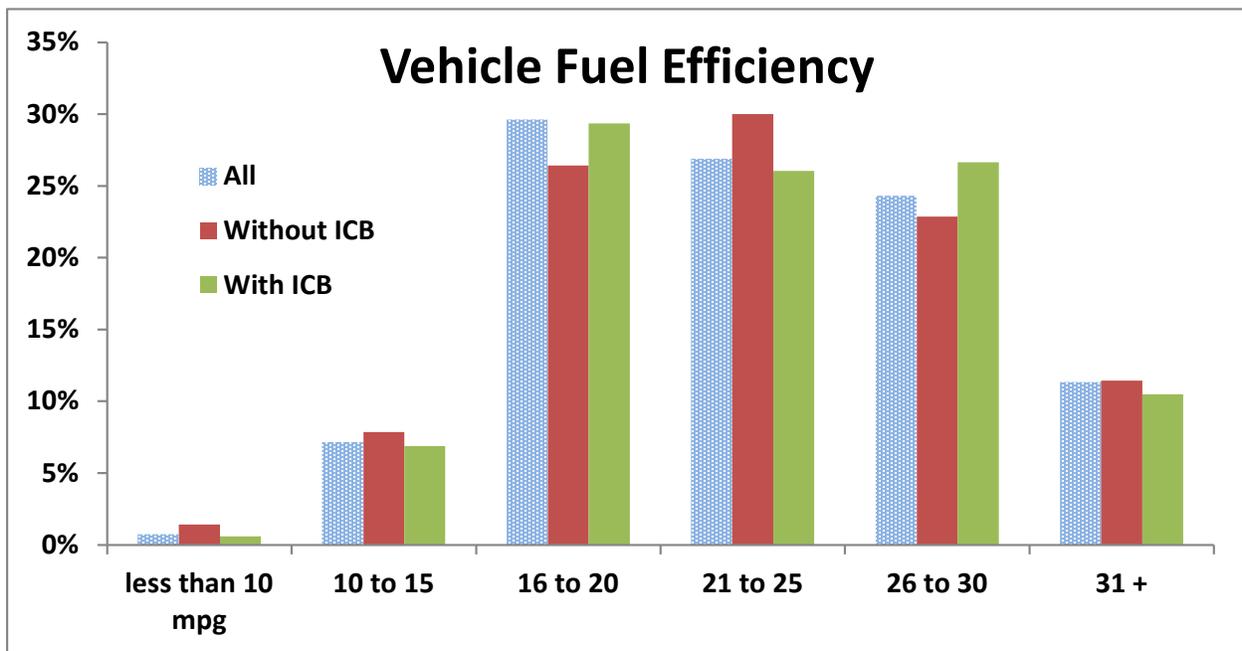


Figure 4.17: Fuel Efficiency of Respondents Vehicles

Respondents were asked whether they would use ICB services if fuel prices increased to a certain level. The most common fuel cost increase that would lead to use of ICB for those with ICB access was 50 percent. Those respondents without ICB service indicated a 25% fuel cost increase was the most common tipping point. Figure 4.18 shows the fuel cost increase that would lead to ICB use for all respondents.

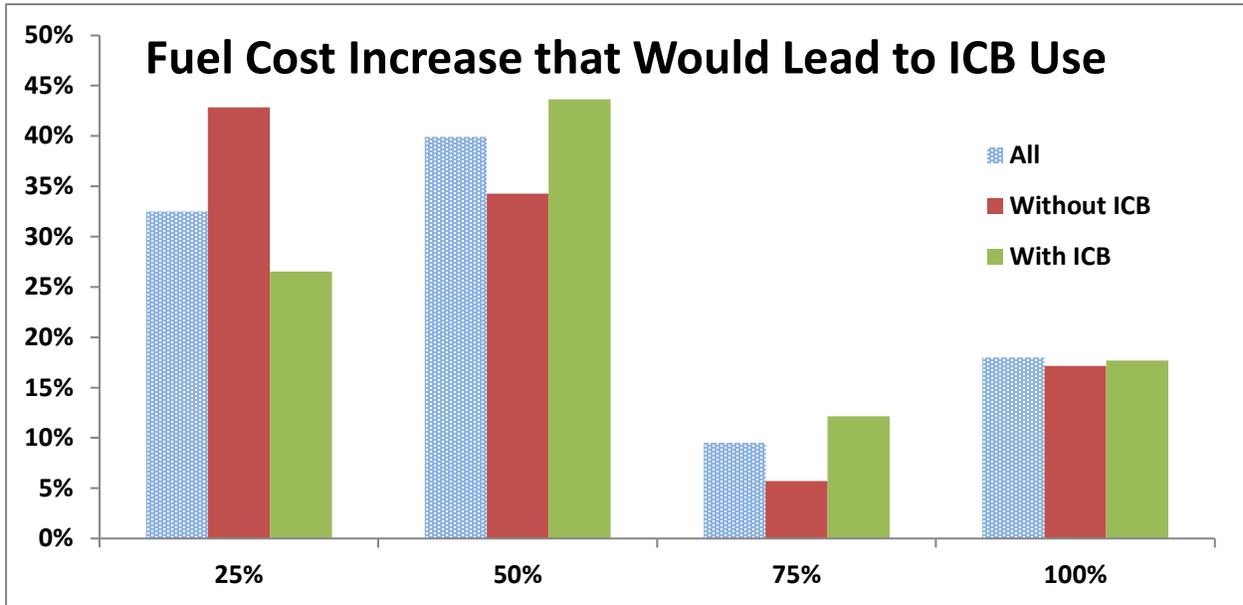


Figure 4.18: Fuel Cost Increase that Would Lead to ICB Use

Similarly, respondents were asked what frequency of service would result in their use of ICB services. The most common response among those with access to ICB was a bus departing every two hours. Among those without ICB service, the most common response was a bus leaving every four hours. A large number of those without ICB service indicated a bus departure every 24 hours would be enough to result in their use of the service. All responses are shown in Figure 4.19.

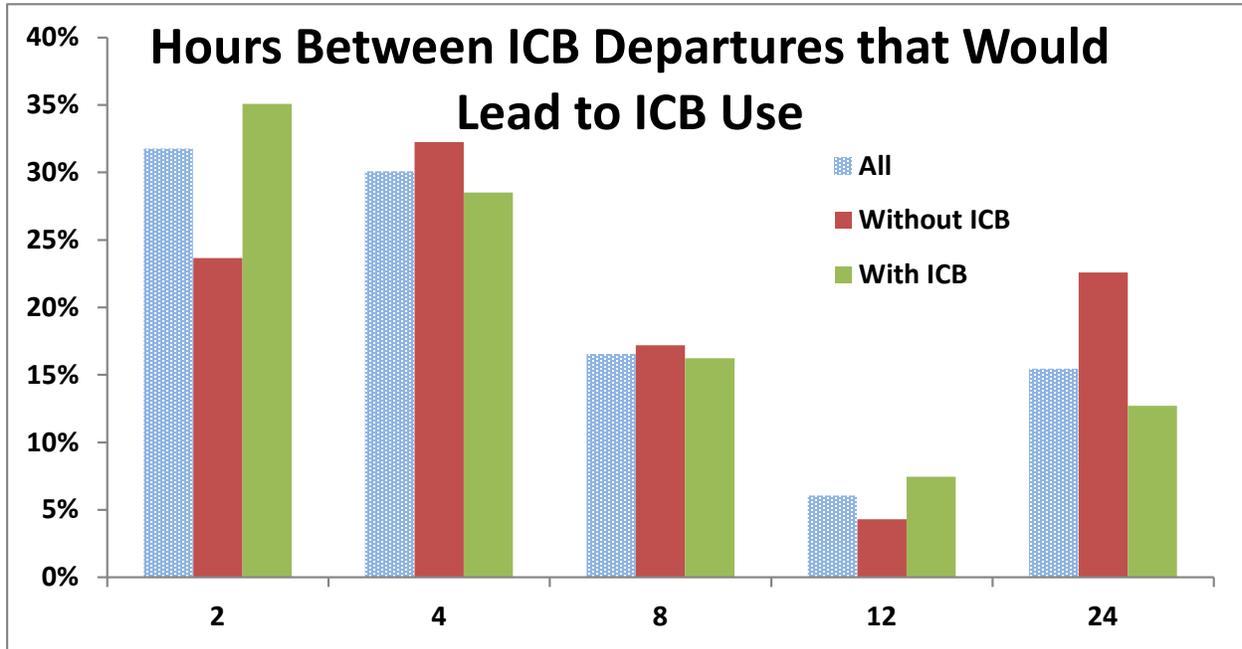


Figure 4.19: Hours Between ICB Departures that Would Lead to ICB Use

Respondents were asked questions about their likelihood of using ICB for trips of different durations. As indicated by the responses in Figure 4.20, more than half of the respondents were “unlikely” or “highly unlikely” to use ICB for a trip of any duration. Thirty-seven percent of respondents were “likely” or “highly likely” to use ICB for a trip of one hour or less, which was the trip duration with the highest likelihood of use.

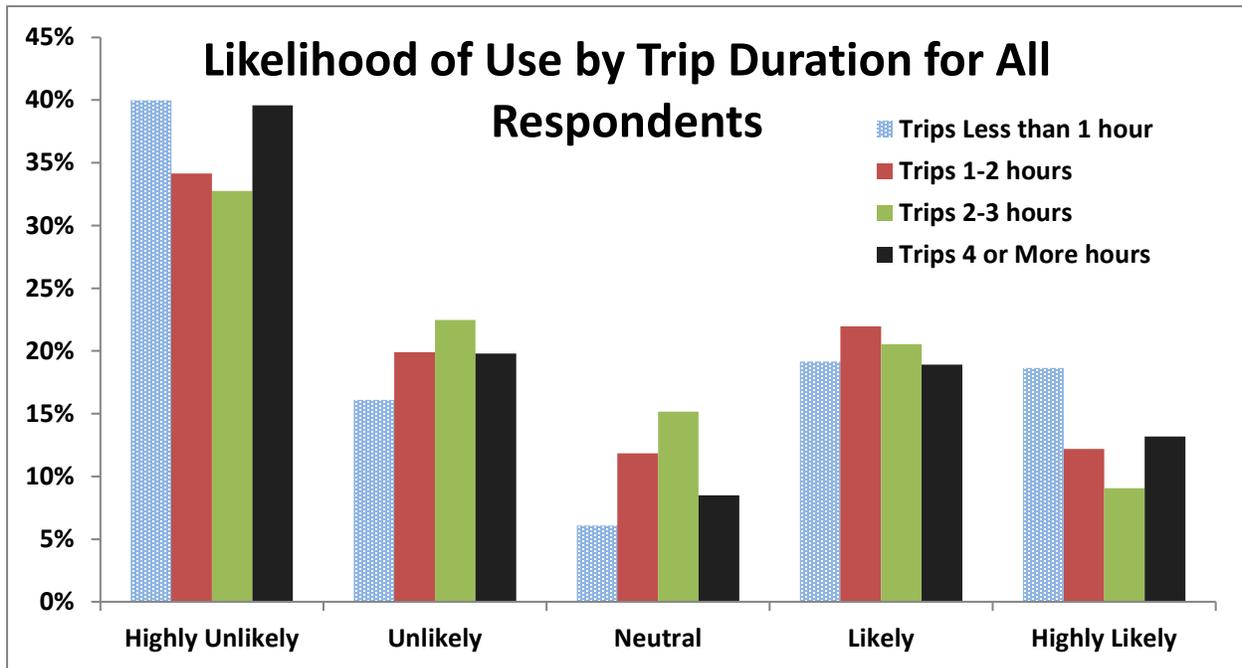


Figure 4.20: Likelihood of Use by Trip Duration for All Respondents

The respondents were asked about their likelihood of using ICB alone versus with others. It was indicated that people are more likely to use ICB services alone than with friends or relatives. Figure 4.21 shows all responses.

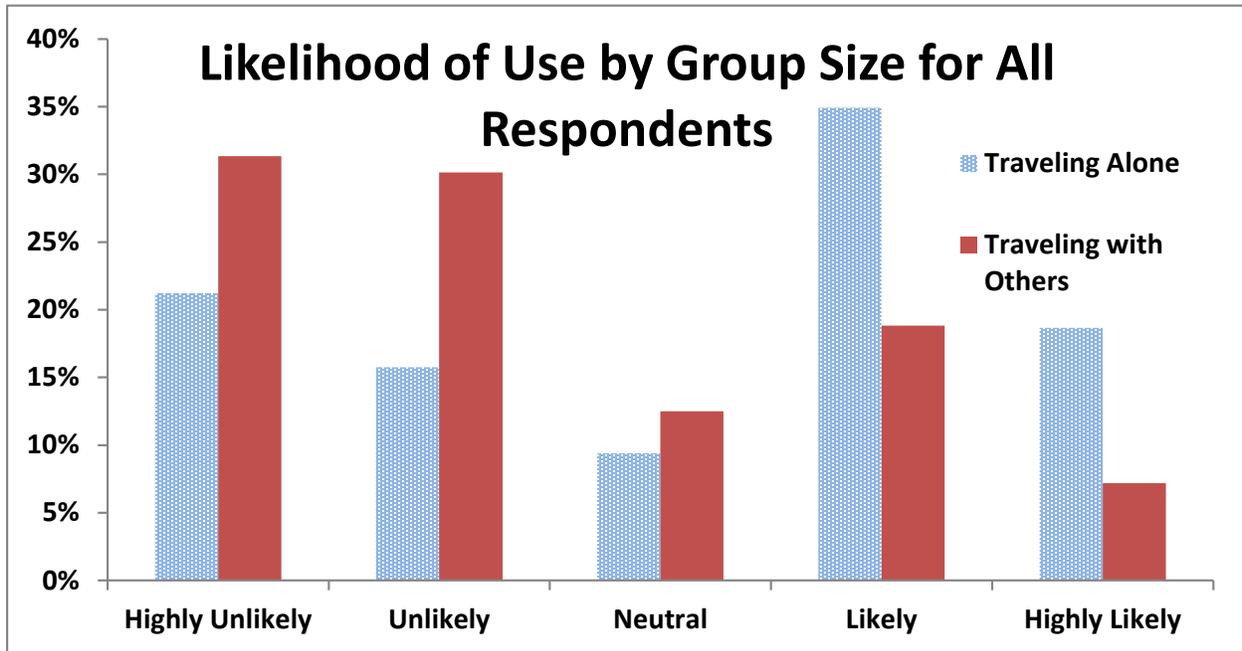


Figure 4.21: Likelihood of Use by Group Size for All Respondents

The respondents were asked if they were likely to use ICB if they lost access to their vehicle or if they lost their ability or privilege to drive. Most people were likely or highly likely to use ICB under these circumstances. Figure 4.22 shows all responses.

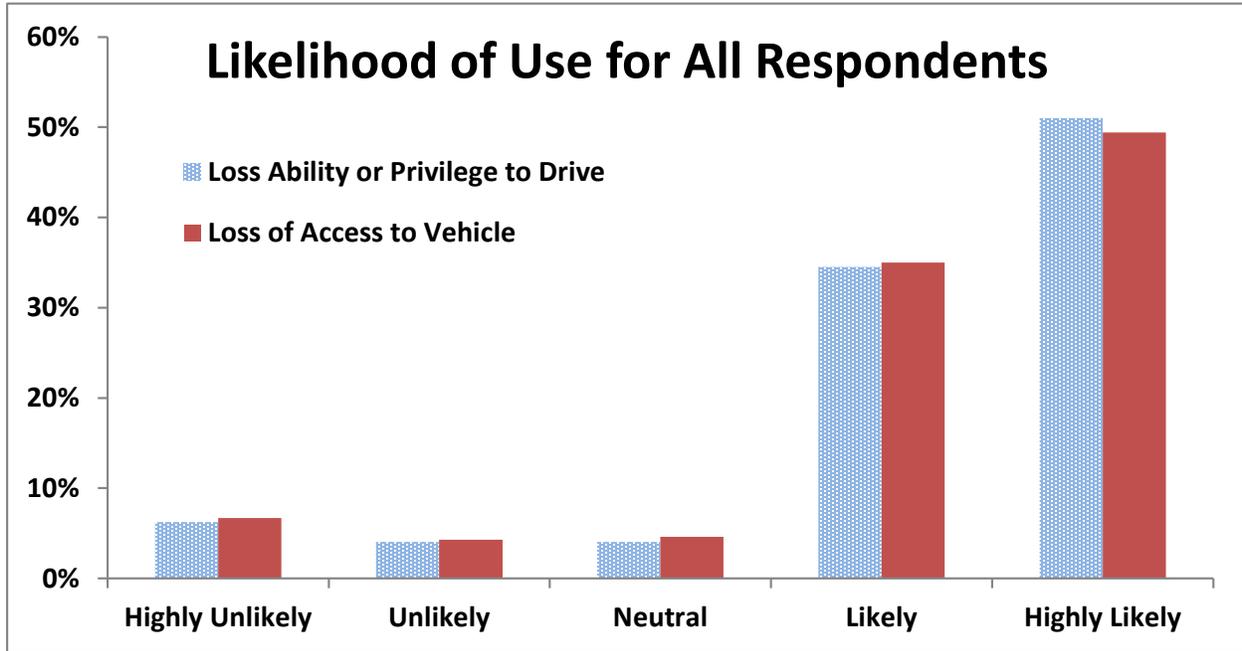


Figure 4.22: Likelihood of Use for All Respondents

Respondents were asked if cleaner stations, safer service, more conveniently located stations, and more information available about ICB would lead to more likely use of the service. Sixty-six percent of all respondents said that more conveniently located stations would make them “likely” or “highly likely” to ride. Better information was rated next highest (63%) followed by cleaner ICB services (51%) and safer service (45%). Responses are shown in Figure 4.23.

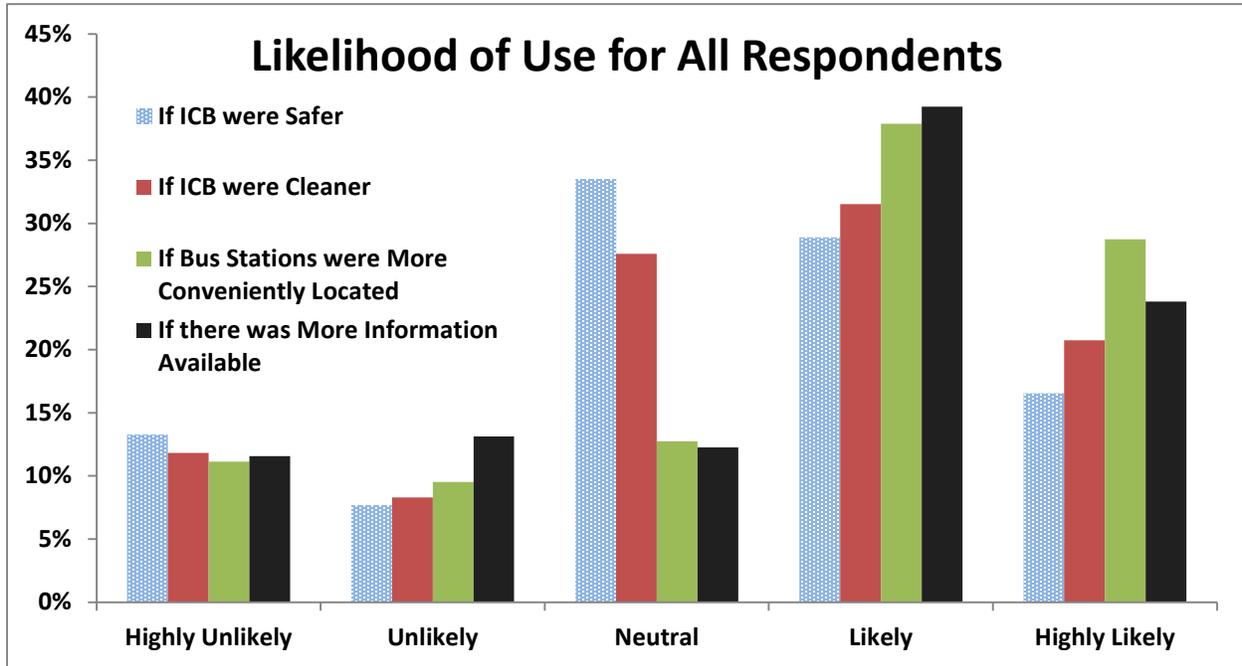
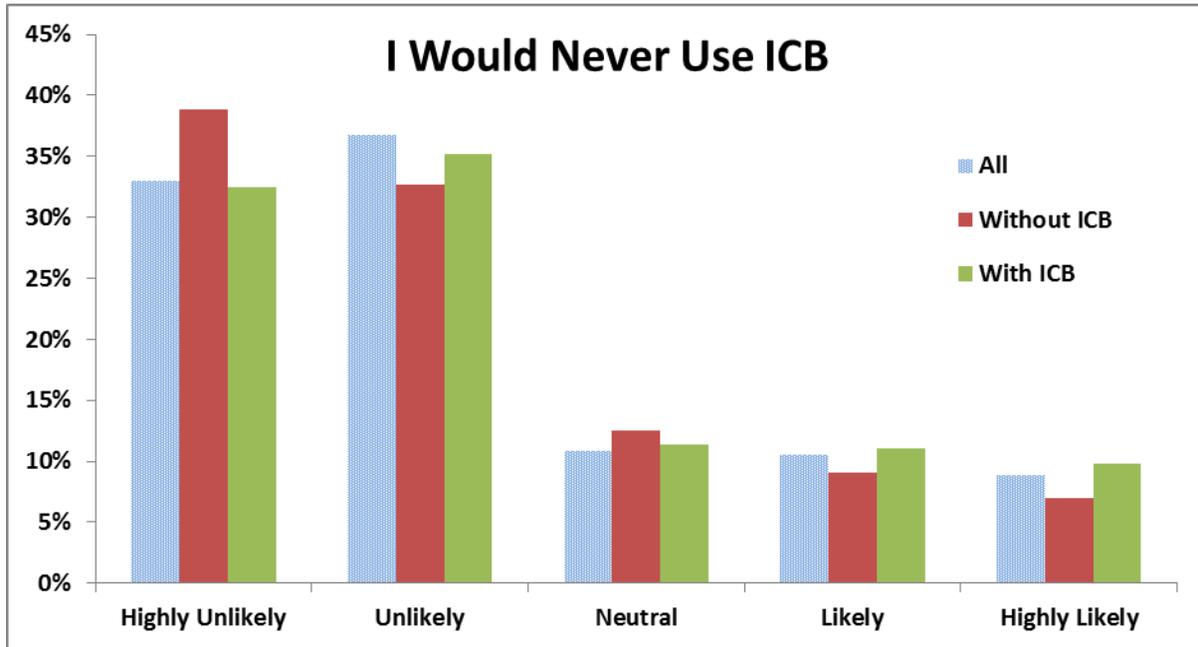


Figure 4.23: Likelihood of Use for All Respondents

Respondents were asked how much they agree with the statement “I would never ride an ICB.” Most respondents were unlikely and highly unlikely to agree with that statement. All responses are shown in Figure 4.24.



**Figure 4.24: Likelihood of Never Riding ICB**

This question should have been asked in a different format, as the response provides a “double negative” answer. That is to say, if a respondent is “unlikely” to never use ICB service, it is likely that they would use the service. Therefore, the results are that 70 percent of respondents are likely or highly likely to use ICB services. However, as previously noted herein, very few respondents to the phone survey had used ICB services in the previous year. Further, the results of the survey highlight the specific conditions/events that would lead to new and/or increased ICB use.

The respondents were asked if they felt ICB needs were being met in the state of Montana. The majority (70%) of all respondents felt that the needs were not being met. All responses are shown in Figure 4.25.

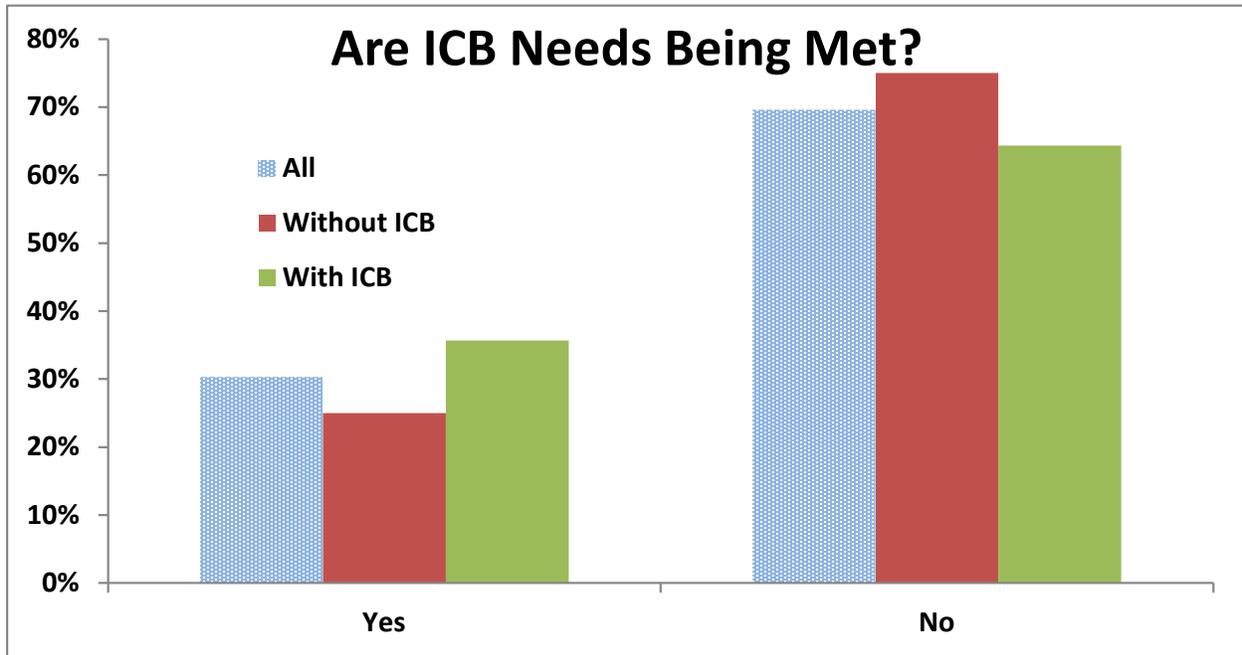
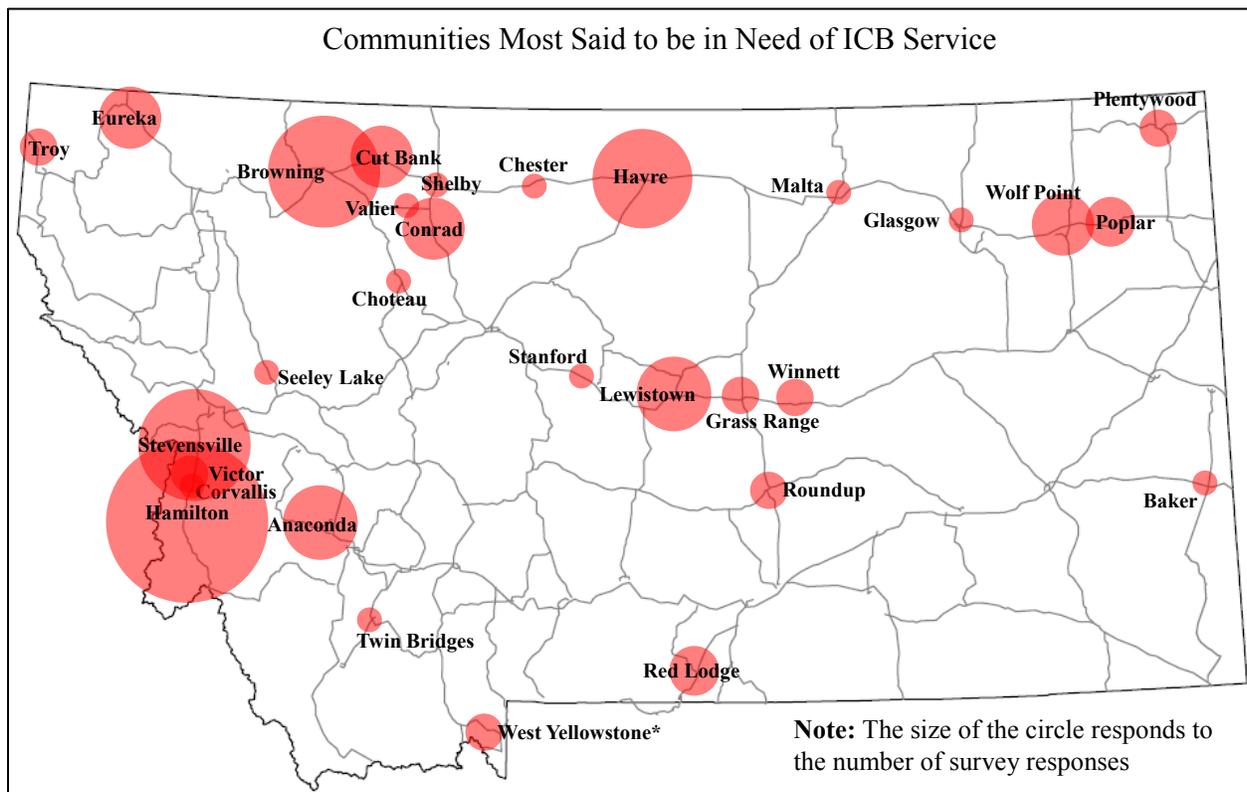


Figure 4.25: Are ICB Needs Being Met

The respondents were also asked to identify any communities that they felt needed ICB services. Eighty-six respondents replied to this question. The most common communities named were Hamilton (7%), Browning (5%), Stevensville (5%), and Havre (4%). Communities that had three percent of the responses included Anaconda, Conrad, Cut Bank, Eureka, Florence, Lewistown, Lolo and Wolf Point. Twelve communities had two percent (each) of the responses, and sixteen communities had one percent (each) of responses, including communities such as Belt, Huntley and Stanford. All responses are shown in Figure 4.26 with the larger circle size corresponding to towns more frequently identified by respondents.



**Figure 4.26: Communities Most Said to be in Need of ICB Service**

The phone survey was used to obtain opinions of individuals living in or near communities that either had ICB service from a “major carrier”, or did not have service. As indicated by Figure 4.25, the majority of respondents (70% of all respondents), indicated ICB needs were not being met. Sixty-five percent of those living in or near a community with ICB service indicated needs not being met, while that percentage increased to 75 percent of those living in communities without ICB services. While 70 percent of respondents indicated that they would be likely or highly likely to use ICB service (Figure 4.24), the use of ICB service may be

dependent upon improvements, such as more conveniently located bus stations, and more information about ICB services (Figure 4.23).

### 4.3. Summary

This chapter summarized the results of a rider survey, along with a telephone survey of the general public. Both surveys asked questions to determine how, when and where riders use ICB service, as well as the perceptions and needs of both riders and non-riders.

The rider survey documented some important demographics regarding who uses ICB services, including ages, destinations, and reasons for travel. The survey established that more than 50% of the riders are from households with annual income of \$15,000 or less, and 25% of riders would not be able to make the trip without access to ICB. This suggests the importance of ICB service to Montana residents with limited resources or without a vehicle.

When the results of the two surveys are combined, they show disconnection between riders (or those who are using the service), and those who haven't used ICB services recently (the majority of those taking the phone survey). Seventy percent of riders who are Montana residents were somewhat satisfied or satisfied with ICB frequency and routes. Conversely, 70 percent of respondents to the phone survey said that their ICB needs were not being met. This may be a case of a respondent justifying their position, e.g., "I don't ride ICB services because they don't meet my needs."

The data herein does suggest, however, that there are areas of the state that could use new or additional services (Figure 4.26). ICB services to these communities may meet the needs of those who indicated their needs are not being met, along with more information about ICB services and perhaps better locations for bus terminals (Figure 4.23). The data also documented several circumstances that could significantly increase the demand for ICB service, such as rising fuel prices or loss of access to a vehicle/ability to drive (which could be a factor as the Montana population ages).

## 5. CONNECTIVITY ANALYSIS

This chapter includes an examination of the connectivity of current intercity bus (ICB) services with local public transportation providers in Montana (FTA Section 5307, 5310 and 5311 providers), as well as with other transportation modes (i.e., Amtrak and Essential Air Service).

The network connectivity analysis includes a review of current ICB routes and schedules within Montana. The research team collected initial data through a review of ICB websites and other documentation of service providers (intercity, 5307 – urban transit providers, 5311 – rural public transit providers), Amtrak and Great Lakes Airlines. In addition, researchers developed an electronic survey and sent it to Section 5307 and 5311 providers.

The team developed a working definition of “meaningful connections” for ICB in Montana, based on the results of the data from the provider surveys, discussions with MDT and other stakeholders, and a review of standard practice,.

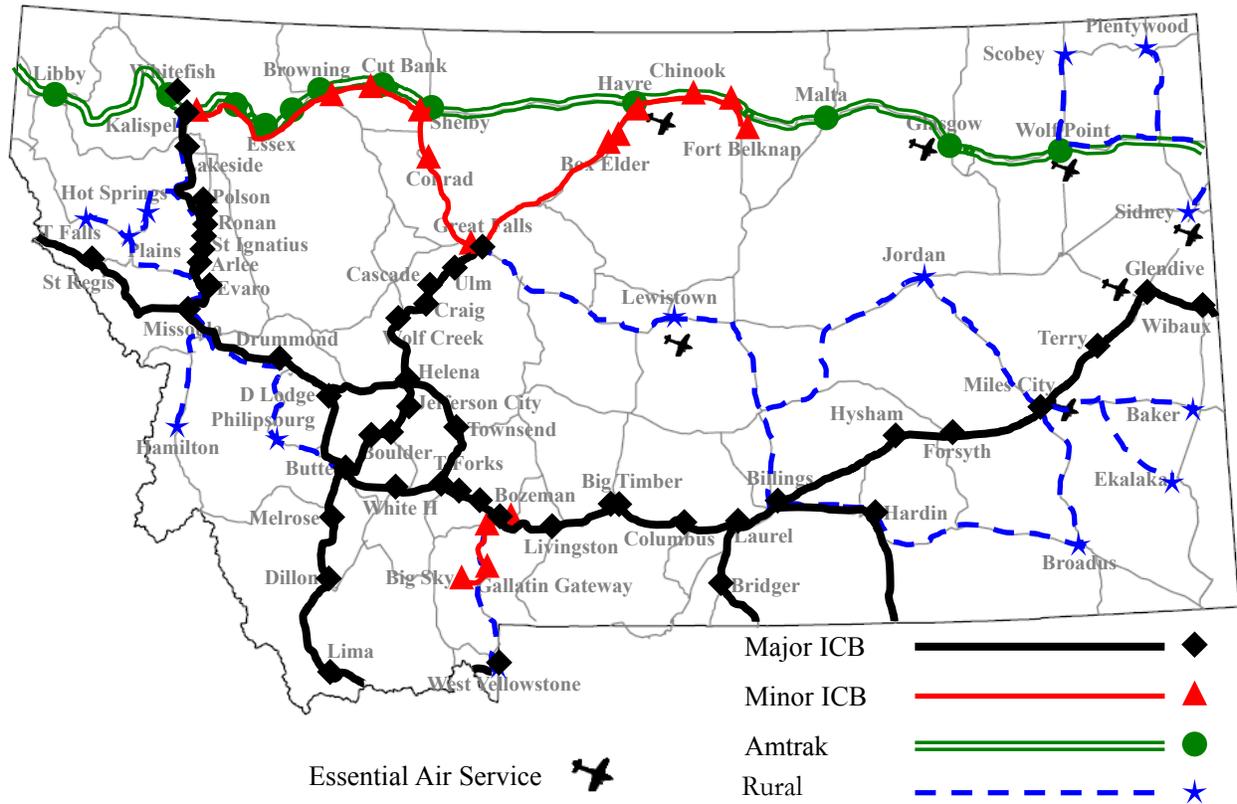
### 5.1. ICB Network Connectivity Analysis

Researchers conducted the network connectivity analysis by performing a, spatial network analysis and schedule analysis. The existing bus services in the state of Montana were separated into three categories for the purposes of the connectivity analysis: (1) major ICB service, (2) minor ICB service and (3) rural (or demand response/limited connectivity services). The categories also tend to describe the different levels of bus services. Details of these categories are discussed in the next section.

#### 5.1.1. Spatial Network Analysis

Major ICB services include those bus routes that connect to the larger national bus network and operate daily throughout the state of Montana. The major ICB carriers in Montana include Greyhound, Rimrock Trailways, Black Hills Stage Lines, and Salt Lake City Express. In addition, Amtrak, an interstate train service, and Great Lakes Airlines (the Essential Air Service or “EAS”) also serve several locations. Amtrak is operated along the Hi-line area (generally considered the northern part of Montana along US Highway 2), and EAS is operated mostly to rural areas in Eastern Montana. Minor ICB services include bus routes that are scheduled for multiple trips during a week between communities not served by the major ICB network. The

minor ICB carriers include Skyline, Northern Transit Interlocal, and North Central Montana Transit. The “rural” routes are rural transit systems that provide access to larger cities one or more times a month, but typically less than once-a-week (although some offer service twice-a-week). The ICB networks, Amtrak, and EAS service locations are shown in Figure 5.1.



**Figure 5.1: ICB Network, EAS and Amtrak Locations**

Major ICB services run one or more times daily, seven days a week. Minor ICB services are scheduled for certain days of the week. Table 5.1 shows the days of operation for minor ICB services.

**Table 5.1: Minor ICB Days of Operation**

<b>Provider</b>	<b>Route</b>	<b>Days Operated</b>
Skyline	Bozeman - Big Sky	M T W R F
Northern Transit Interlocal	Shelby - Great Falls	M R
Northern Transit Interlocal	Shelby – Kalispell	T
North Central MT Transit	Great Falls - Fort Belknap	T R
North Central MT Transit	Havre - Fort Belknap	M T W R F
North Central MT Transit	Havre - Box Elder	M T W R F

Note: M-Monday, T-Tuesday, W-Wednesday, R-Thursday, F-Friday

The rural services are offered by rural transit systems and make trips to larger cities when a trip is requested by a person (or people) in that community. Often rural transit providers make a certain number of trips to larger cities each month. The average frequency of these trips is shown in Table 5.2.

Essential Air Service (EAS) refers to airlines subsidized by the Federal Aviation Administration (FAA) with the aim of maintaining commercial air services at a minimal level for small and rural communities. There are seven EAS airports in Montana, and they are served daily by Great Lakes airlines. The EAS links most of the seven airports (Havre, Wolf Point, Glasgow, Sidney, and Glendive) to the airport in Billings, which is the major commercial airport in Montana. All of the EAS airports (except Havre) are connected by local transit providers. The transit services to the airports are on a demand response basis. The North Central Montana Transit system (Havre) does provide service to the Great Falls airport on the two days per week (Tuesdays and Thursdays) that it travels to Great Falls. It is noted, however, that transit systems do not provide service to some of the larger airports in Montana, including Billings, Bozeman, Great Falls and Kalispell. The Great Falls Transit District did provide service to the Great Falls Airport several years ago, but dropped the service due to a lack of ridership (demand).

**Table 5.2: Rural Service Frequency**

Agency	Origin	Destination	Trips (per month)
Fallon County Transportation System	Baker	Miles City	1
Powder River County Public Transportation	Broadus	Miles City	8
	Broadus	Billings	3
Carter County	Ekalaka	Miles City	2
BitterRoot Bus	Hamilton	Missoula	4
Sanders County Transportation	Hot Springs	Polson	2
	Hot Springs	Kalispell	2
	Hot Springs	Missoula	6
	Plains	Missoula	6
	Thompson Falls	Missoula	2
Big Dry Transit	Jordan	Miles City	2
	Jordan	Billings	1
Central Montana Shuttle	Lewistown	Great Falls	3
	Lewistown	Billings	3
Granite County Transportation	Philipsburg	Missoula	6
	Philipsburg	Butte	6
Quality Transit	Plentywood	Williston, ND	10
Daniels County Transportation	Scobey	Williston, ND	4
Richland County Transportation Service	Sidney	Williston, ND	4
West Yellowstone Foundation	West Yellowstone	Bozeman	8

### 5.1.2. Schedule Analysis

To determine the connectivity of intercity transportation services, layover times were determined from the schedules of the providers. For daily intercity transportation, major ICB and Amtrak, some long layover times (e.g., longer than 2 hours) exist that may be an inconvenience to riders. A layover time of more than two hours is considered herein as a “long layover” based on how other states have defined a “meaningful connection.” A further discussion of this topic is presented in Section 5.3. Table 5.3 shows the longer layover times for daily intercity transportation.

**Table 5.3: Layover Times for Daily Services**

City	Carriers	Layover Time
Whitefish	Rimrock Trailways NB to Amtrak WB	9 hr 36 min
Whitefish	Rimrock Trailways NB to Amtrak EB	20 hr 6 min
Billings	Rimrock Trailways EB to Black Hills Stage Lines SB	11 hr 45 min
Billings	Rimrock Trailways WB to Black Hills Stage Lines SEB	7 hr 0 min
Billings	Rimrock Trailways WB to Black Hills Stage Lines SB	6 hr 50 min
Whitefish	Amtrak WB to Rimrock Trailways SB	14 hr 39 min
Whitefish	Amtrak EB to Rimrock Trailways SB	4 hr 9 min

Note: NB=northbound, SB=southbound, etc.

Layover times were determined for daily minor ICB to major ICB connections. Some long layover times were found from provider's schedules. Table 5.4 shows the long layover times between minor ICB and major ICB routes.

**Table 5.4: Layover Times for Minor to Major ICB Routes**

City	Carriers	Layover Time
Bozeman	Skyline to Rimrock Trailways WB	5 hr 50 min
Bozeman	Skyline to Rimrock Trailways EB	2 hr 5 min
Great Falls	North Central MT Transit to Rimrock Trailways SB	4 hr 40 min
Havre	North Central MT Transit WB to Amtrak WB	5 hr 39 min
Havre	North Central MT Transit WB to Amtrak EB	3 hr 47 min
Havre	North Central MT Transit EB to Amtrak WB	6 hr 43 min
Havre	North Central MT Transit EB to Amtrak EB	4 hr 52 min
Kalispell	Northern Transit Interlocal to Rimrock Trailways SB	2 hr 35 min

Local transit agencies typically operate their services from 8:00 am to 5:00 pm. Many of these transit services coordinate with other modes of transportation. However, ICB riders on routes operated outside of normal operating hours are not able to take advantage of local bus services to complete their last land mile journey. Forty-four percent of transit ICB routes (14 out of 32) are operated outside of a 7:30 am to 5:30 pm timeframe. The scheduling issue is most prevalent in Billings and Butte (Table 5.5).

**Table 5.5: Routes and Operating Hours**

City	Number of Routes 7:30 am to 5:30 pm	Number of Routes 5:31 pm to 7:29 am
Billings	2	5
Bozeman	3	2
Butte	1	5
Great Falls	2	0
Helena	4	1
Kalispell	2	0
Missoula	4	1
Total Routes	18	14

This section provided an overview of existing ICB services, and other transportation services for the public in Montana. It highlighted the fact that there is some connectivity between transit and some of the other modes, but that nearly half of the “major ICB” services operate outside a 7:30 am to 5:30 pm transit timeframe.

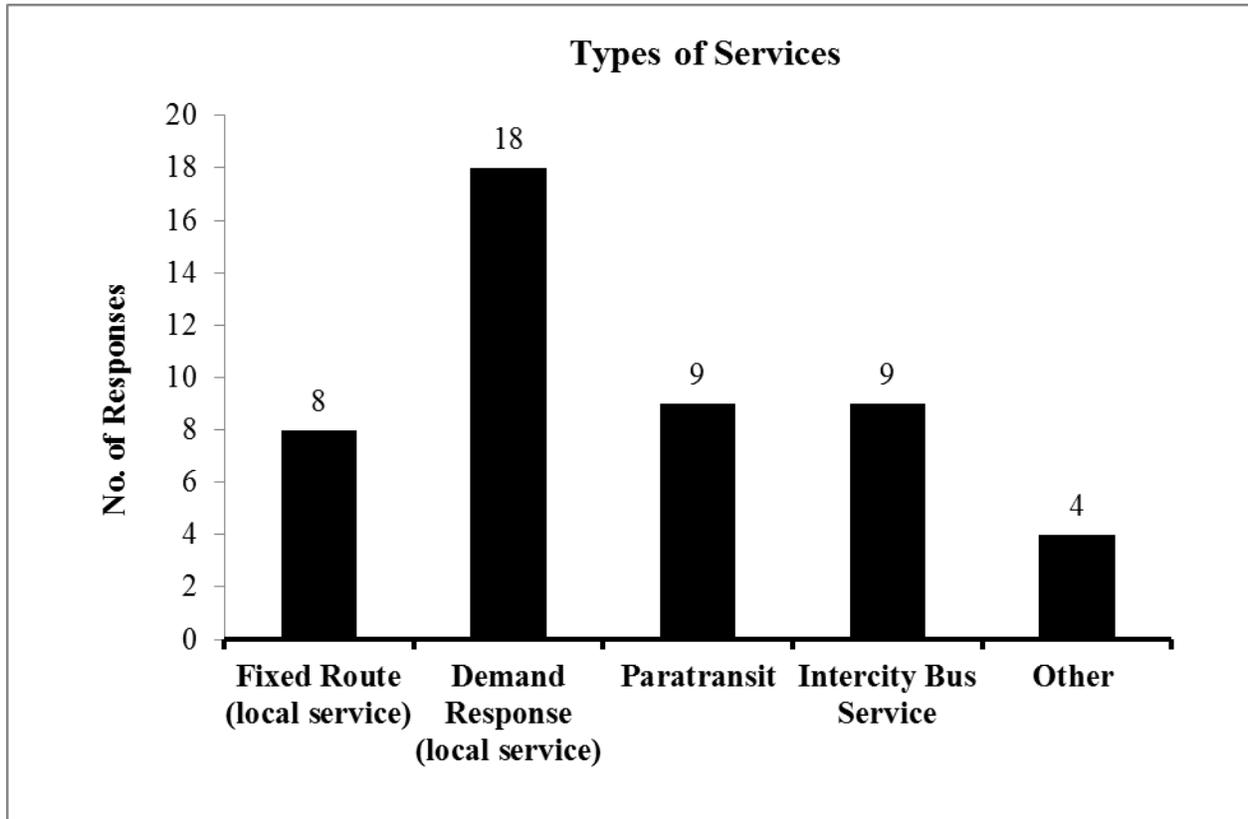
## 5.2. Transit Managers’ Survey

To obtain the opinions of local transit agencies regarding ICB services in Montana, researchers conducted an online survey consisting of twelve quantitative and qualitative questions (Appendix D). The survey covered topics such as services offered by the transit agency; population groups served; local transit agencies' connections to ICB, airports, and commuter services; fares charged for any services other than local services; needs (met or unmet) of ICB systems; and any other improvements needed for ICB in Montana. The online survey tool QuestionPro was utilized. Surveys were e-mailed and/or faxed to 40 transit managers and/or administrators at the public transportation agencies listed on Montana Transit Association’s website (MTA 2011). The Northern Cheyenne agency was added, as it was not noted on the website. A total of 21 surveys were returned for a 54 percent response rate. Analysis of the survey results is presented in the remainder of this section.

### 5.2.1. Transit Services

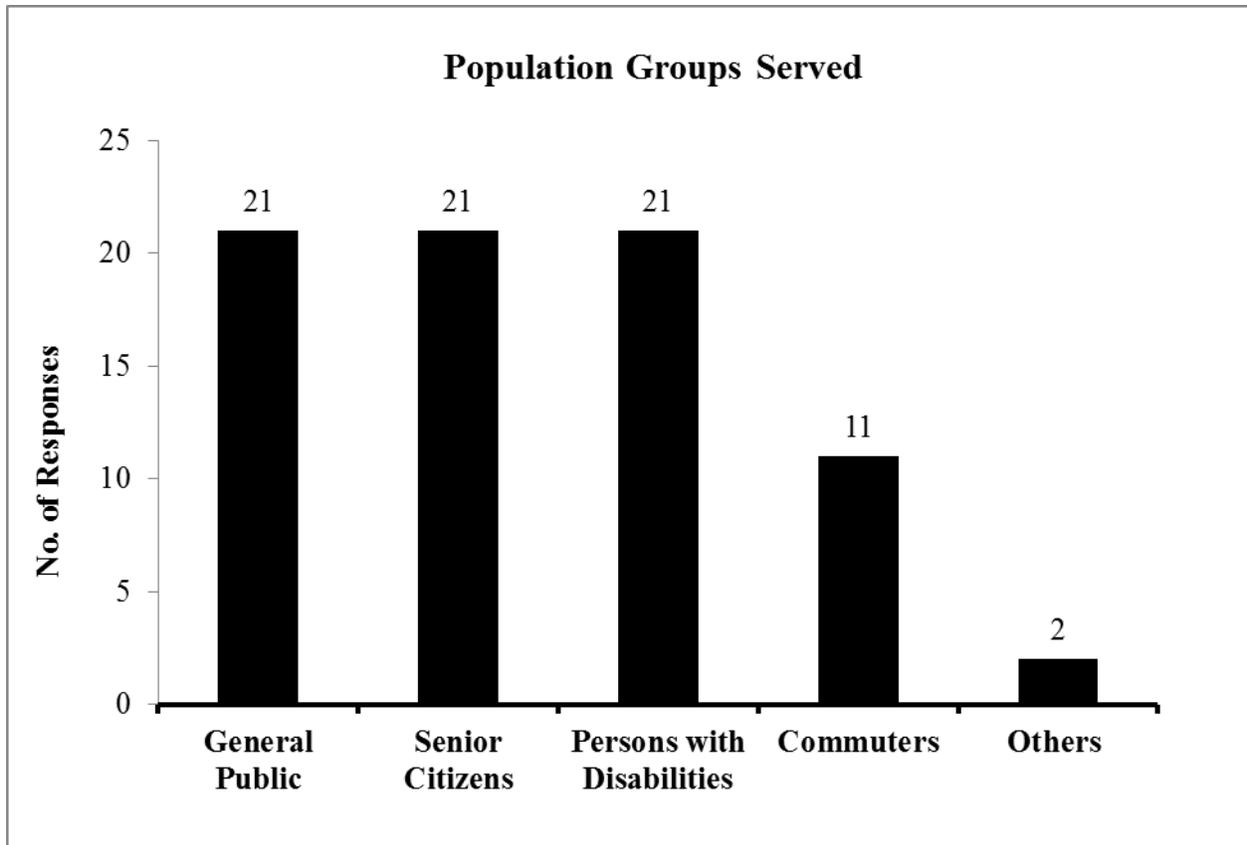
The second question of the survey asked what types of services were being offered by the transit agencies. A wide variety and combination of services were reported (Figure 5.2). Responses included fixed route (8 responses), demand response service (18 responses), paratransit (9 responses), ICB (9 responses), and other services (4 responses). The 'Other'

responses included two noting “fixed with deviation”, one stating “Our routes are fixed only until we get from rural starting point to urban destination, then we go wherever”, and one noting “Two out-of-town trips per month.”



**Figure 5.2: Transit Services Offered in Montana**

The next question asked respondents to note all of the population groups they serve. As indicated by Figure 5.3, all respondents indicated they serve the general public, senior citizens, and persons with disabilities. Eleven respondents indicated they serve commuters as well. One agency indicated they served students and a youth program, and one agency noted it served its county residents.



**Figure 5.3: Populations Served by Transit Services**

**5.2.2. Transit Connections**

Transit agencies were asked whether they provide connections to an ICB stop, airport, and/or train station (Amtrak). If so, they were asked to provide the location of the connection, the number of passenger trips to the location, and the cost of a one-way fare to the location. Eleven transit agencies responded to this question. Of these, seven agencies provide a connection to an ICB stop, six agencies connect to airports, and five agencies provide services to train stations (Amtrak). To provide services to these locations, transit agencies charge various fares. While some agencies asked for a “donation” for services, some one-way fares were reported in the range from \$10 to \$35. Table 5.6 shows the complete information on transit services, location, monthly trips, and one-way fare charged by transit providers.

**Table 5.6: Service Types, Location and Characteristics**

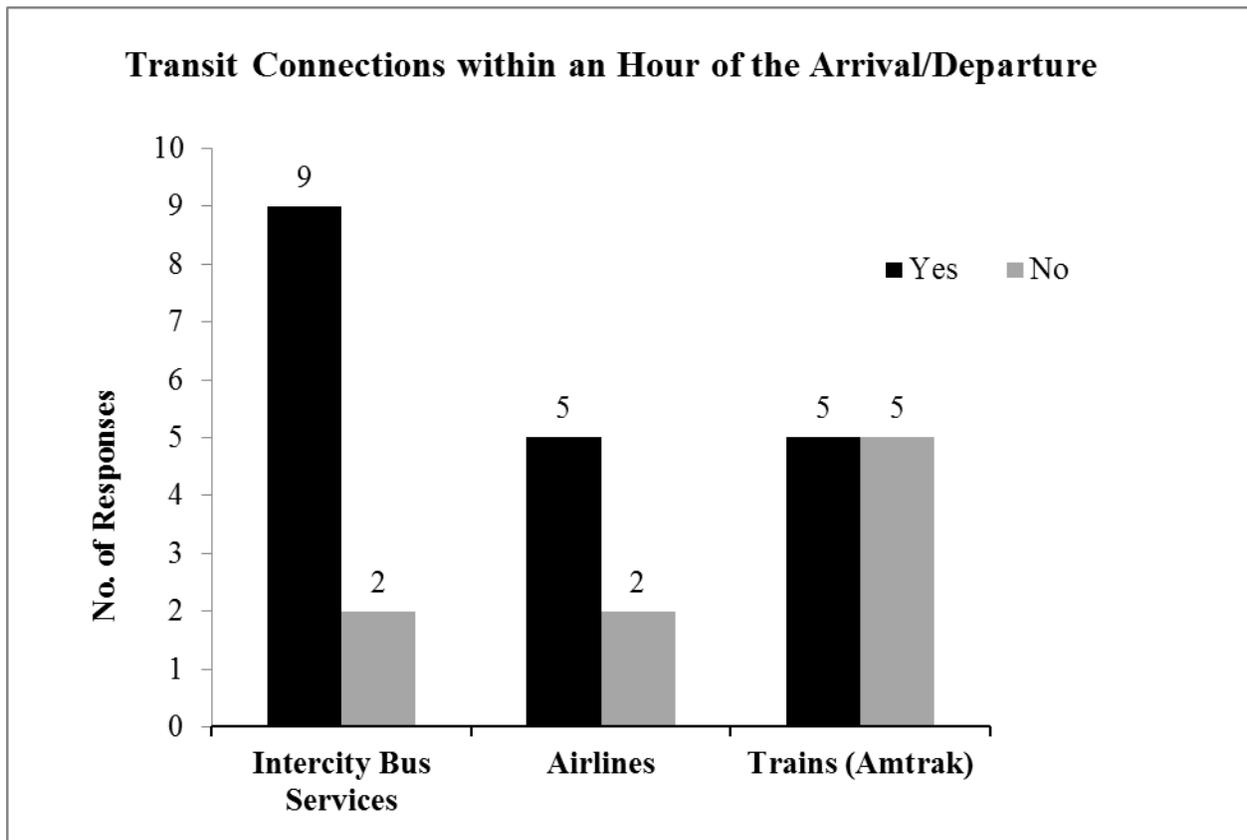
<b>Transit Agency</b>	<b>Types of Service</b>	<b>Location(s) (City or town)</b>	<b>Monthly Passenger Trips</b>	<b>One-way Fare (\$)</b>
Skyline	Intercity Bus Stop	Bozeman, MT	20	\$1
Fort Peck Transit (Dial-A-Ride)	Intercity Bus Stop	From outlying communities on the reservation to the towns of Poplar & Wolf Point	40	Fort Kipp to Poplar \$1.25 Brockton to Poplar \$0.65 Frazer to Wolf Point \$1.10
	Airport	Wolf Point		
	Train (Amtrak) Station	Wolf Point		
Glacier County Transit	Train (Amtrak) Station	Shelby Amtrak	2 times per week - possibly several trips per day - based on ridership need	Donation
Toole County Transit	Train (Amtrak) Station	Shelby Amtrak	4 days per week: Mon.-Thur.	Donation
Central Montana Shuttle	Intercity Bus Stop	Billings, Great Falls	2 (approx)	\$30
	Airport	Billings, Great Falls	5 (approx)	\$30
North Central Montana	Intercity Bus Stop	Great Falls	8 (2x/week)	\$1.00 to \$10.00 per trip
Northern Transit Interlocal	Intercity Bus Stop	Rimrock Trailways - Great Falls	two times per week - twice per day for a total of 4 trips per week	Donation
	Airport	Great Falls International Airport, Glacier Park International	Great Falls: two times per week - twice per day for a total of 4 trips per week; Glacier Park - 1 day per week	Donation
	Train (Amtrak) Station	Shelby Amtrak Station	two times per week - twice per day for a total of 4 trips per week	Donation
Mineral County Pioneer Council-Transportation Service	Intercity Bus Stop	Missoula	1st & 3rd Thursdays	\$5 - \$12 round trip and half fare for one-way

**Table 5.6: Continued**

Transit Agency	Types of Service	Location(s) (City or town)	Monthly Passenger Trips	One-way Fare (\$)
Carter County Carter Charter	Airport	Rapid City Regional	On demand and must be a senior citizen	Donation
Lake County Council on Aging/Lake Community Transit	Intercity Bus Stop	Missoula, MT	1	\$13-\$28
	Airport	Missoula Kalispell	8 (approximate)	\$28
	Train (Amtrak) Station	Whitefish	1/2	\$35

Note: The “monthly passenger trip” column is the number of “trips” or “runs” the bus makes, not the number of passengers.

To understand how transit agencies are aligned with the other modes of services, agencies were asked specifically whether they provide a transit connection within an hour of arrival or departure time of ICB, Amtrak or airline services. Nine transit agencies reported they provided a connection to an ICB location within an hour, with five agencies providing a connection within an hour to airports and train station (Figure 5.4).



**Figure 5.4: Connections within an Hour to Various Modes**

As a follow up question, transit agencies were asked to provide the layover time for the various locations/services. Five agencies reported layover times ranging from half an hour to four hours (Table 5.7). Since modes such as ICB, airlines and Amtrak can have varying arrival times based on factors such as weather or delays of connections to their services, a high fluctuation in layover times may have been reported.

**Table 5.7: Layover Time for Passengers**

<b>Transit Agency</b>	<b>Type of Service</b>	<b>Layover Time</b>
Lake County Council on Aging/Lake Community Transit	Intercity Bus Service Stop	1/2 to 1 hr
	Airport	1 hr to 1 1/2 hr
	Train (Amtrak) Station	2 hrs
Great Falls Transit District	Intercity Bus Service Stop	10 min
Carter County Carter Charter	Airport	Passenger's preference
Fort Peck Transit Dial-A-Ride	Intercity Bus Service Stop	2 - 4 hrs
North Central Montana Transit	Intercity Bus Service Stop	Approx. 2 hrs
	Airport	Approx. 1hr
	Train (Amtrak) Station	Next day

Question 7 on the survey was directed at respondents who do not currently provide connections to ICB service, airports, or train stations. The question specifically asked whether this had always been the case or had service previously been offered but then discontinued. Nine transit agencies answered the question. As seen in Figure 5.5, six transit agencies reported they never provided transit connections to any other modes. One transit agency indicated it had provided service to an airport, but had discontinued that service due to insufficient demand. Four “Other” responses, included: 1) On-demand for senior citizens, 2) we operate within Toole County only, 3) Glacier County Transit provides local transportation in Cut Bank in addition to trips to Shelby two times per week to coordinate with Northern Transit Interlocal and Toole County Transit, and 4) We are located a considerable distance from all of the services listed.

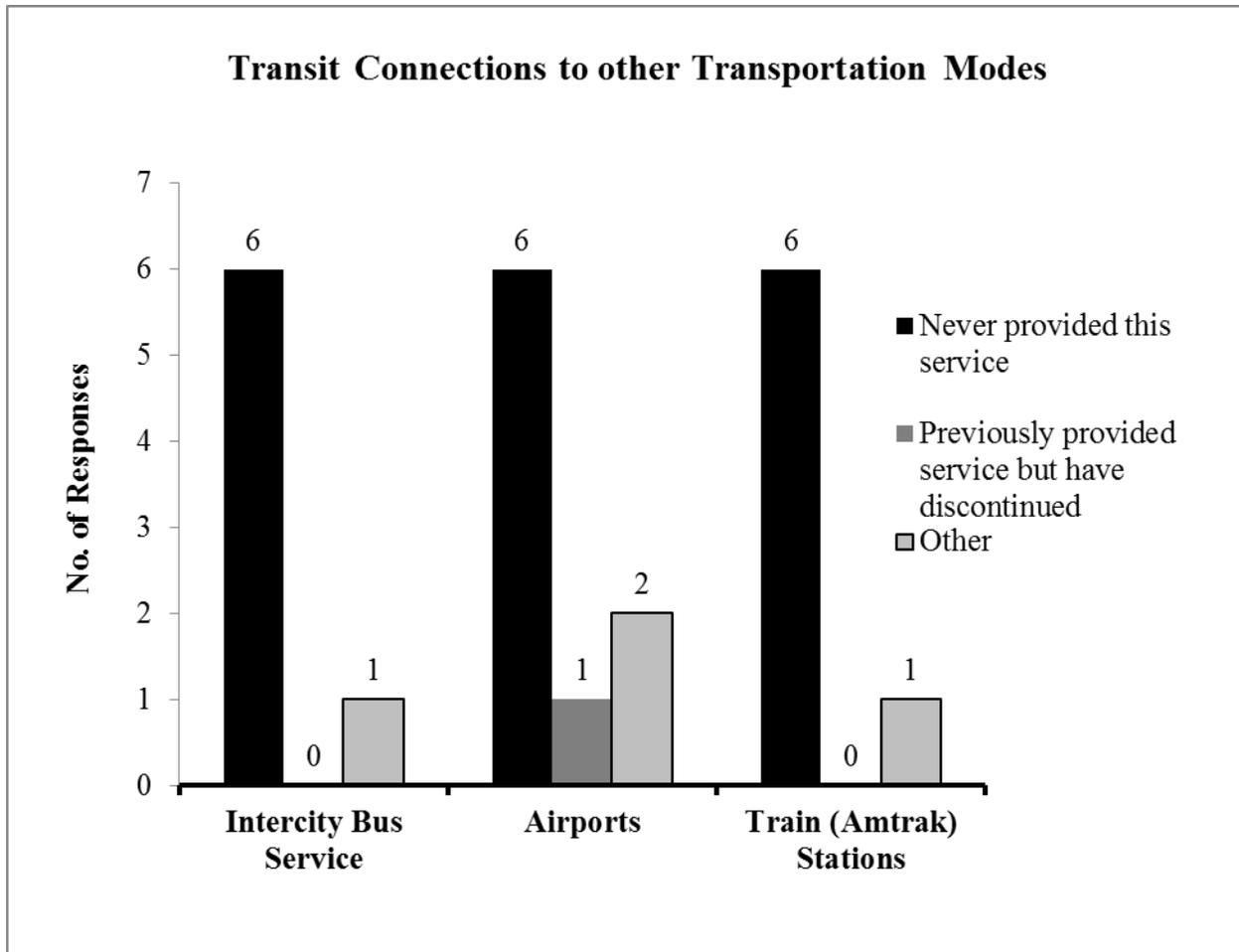


Figure 5.5: Reasons for Lack of Connections to Other Modes

5.2.3. Transit Service Needs

Transit agencies were asked to what extent local, commuter, and ICB service needs were being met in their communities. These terms were defined as follows:

- **Local Transit:** A service to provide basic mobility within a local area (a radius of 10 miles);
- **Commuter Service:** A service to provide mobility for employment, or to access health care, education and other services connecting one city/town with another city/town with the towns being 10 to 50 miles apart; and,
- **Intercity Bus Service:** A regularly scheduled bus service for the general public that operates with limited stops over fixed routes connecting two or more urbanized areas (cities with a population of at least 50,000), and has the capacity for transporting baggage carried by passengers. ICB can also connect rural areas to urbanized areas.

Responses are shown in Figure 5.6. The responses indicated most transit agencies believe local transportation needs are being met, but less so for commuter and ICB services. The results may indicate that intercity and commuter bus service networks need to be extended. Better coordination among local services may address some of these issues, however.

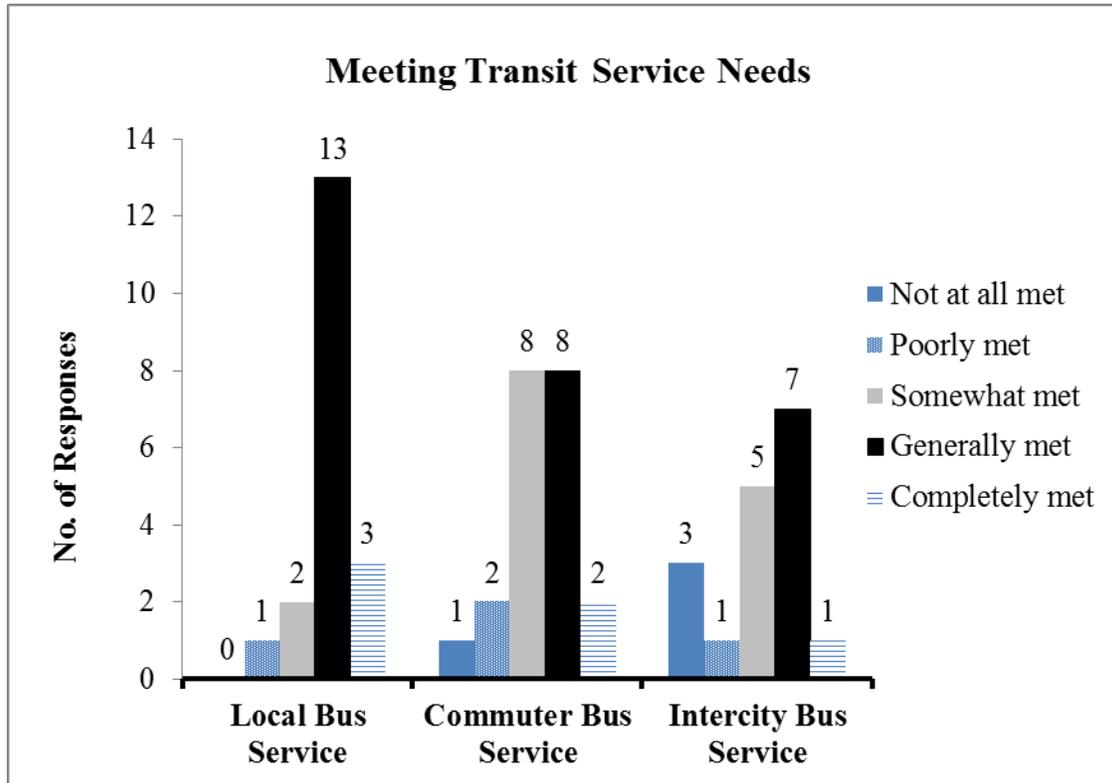


Figure 5.6: Meeting Transit Service Needs

As a follow up question, transit agencies were asked, “Do you believe that there are unmet ICB service needs in your area? If yes, please provide your comments.” Eight respondents indicated that there were unmet needs, while six respondents indicated there were no unmet needs.

Respondents made 11 comments about unmet ICB service needs. These comments focused on better coordination with other services, increased frequency of ICB service, improved scheduling of bus arrivals and departures, and the large distances between communities. Some of the specific comments are as follows:

1. There are many people in our area that need to be able to get to destinations like Billings or Bismarck. We currently do not have a way to offer this service. We have recently

coordinated with a North Dakota bus service to get people to Williston, ND but that only meets a portion of the public's needs.

2. More frequency would be nice.
3. There is one bus (Rimrock) per day, which will take you to Butte via Helena. Service from Havre twice a week and service from Shelby twice a week [exists].
4. Services to/from Billings [is needed].
5. The Central Montana Shuttle provides rides to Great Falls and Billings three times a month each, other than us there are no buses. You cannot get to Billings from Great Falls unless you travel through Butte.
6. There is a need (noted through surveys and phone/e-mail requests) for a late trip from Shelby to Great Falls for Amtrak passengers that arrive in Shelby at approximately 5:30 p.m. We do not have sufficient funding to provide that service. Currently, we offer transportation on a Monday/Thursday basis from Shelby to Great Falls. A Saturday/Sunday service has also been requested numerous times. Again, we do not have sufficient funding to provide more than a two-day per week service for Amtrak passengers.
7. Need service at better times. 4 am departure is too early.
8. We are a rural bus service and provide transportation on a limited basis to and from larger cities for our county residents. They can ask us to link them with ICB, airports or bus depots.
9. We live in a community of 1,800 people and the nearest larger city is 80 miles away.

To target where additional or new services may be required, transit agencies were asked to indicate the top five routes (origins and destinations) that would benefit from new or improved ICB. Table 5.8 shows the suggested ICB routes.

**Table 5.8: Potential Commuter/ICB Routes**

<b>Transit Agencies</b>	<b>From (City or Town)</b>	<b>To (City or Town)</b>
Great Falls Transit District	Great Falls	Helena
	Great Falls	Havre
	Great Falls	Shelby
	Great Falls	Missoula via Lincoln
	Great Falls	Billings via Lewistown
North Central Montana Transit	Havre Area	Billings
	Havre Area	Kalispell
	Havre Area	East Montana
Central Montana Shuttle	Lewistown	Malta
	Lewistown	Billings
	Lewistown	Great Falls
Big Sky Transportation District (Skyline)	Bozeman	West Yellowstone
	Bozeman	Helena
	Bozeman	Billings
	Bozeman	Missoula

Finally, an open-ended question asked transit agencies to provide any other comments they may have, “related to commuter or ICB services in your area (for example: additional funding, regional coordination, new vehicles, etc.)” The following comments were made by transit agencies:

1. Need for regional coordination between systems.
2. A regional coordination plan among providers to connect our programs together to get folks from one side of the state to the other would be a good idea
3. In regards to question 11, Fort Peck Transportation is so 'rural' that we are not close to other transit systems, except for Glasgow/Valley transit, but their buses are only for their clients.
4. The current routes/schedules are not conducive to intra-state travel. Most people would probably rather fly or take the train to Seattle and/or Minneapolis. We need to focus more on services that would move people around within Montana.

**5.3. Meaningful Connections**

Funding for ICB services comes from various sources, including the FA’s Section 5311(f) program. In clarifying information about ICB services, FTA notes that:

For the purpose of this provision, FTA defines intercity bus service as regularly scheduled bus service for the general public that operates with limited stops over fixed routes connecting two or more urban areas not in close proximity, that has the capacity for transporting baggage carried by passengers, and that makes **meaningful connections** with scheduled intercity bus service to more distant points, if such service is available. (Urban area is defined very broadly in 49 U.S.C. 5302(a)(16) as “an area that includes a municipality or other built-up place that ... is appropriate for a local public transportation system to serve individuals in the locality.”) Schedule information for intercity service is typically maintained in the Official Bus Guide (Russell’s Guide). Connection to the national network of intercity bus service is an important goal of Section 5311(f) and services funded must make **meaningful connections** wherever feasible.

(FTA Circular 9040.1F, 2007 Page VIII-4)

What the Circular does not do, however, is define a “meaningful connection.” The definition, it seems, is left to others to interpret. Further, the Circular does not define “feasible,” and it is important to note “services funded by Section 5311(f) must make “meaningful connections wherever feasible.”

The Merriam-Webster Online Dictionary defines “feasible” as: 1) capable of being done or carried out (a feasible plan); or, 2) capable of being used or dealt with successfully (Suitable, Reasonable, Likely). Based on this definition, services funded through the Section 5311(f) program must make meaningful connections when reasonable. The ability to make connections in a “reasonable manner” would likely include limitations based on time of day, distance, and budget.

Some states have defined a “meaningful connection” in their transportation plans or through transportation studies. The definitions, such as in Washington, typically include several factors, noting services should, “...provide for meaningful connections with the national intercity network through physical connections at common terminals, interline ticketing, provision of schedule information, and schedules that minimize connecting times (within 90 minutes before/after designated connecting services)” (KFH Group, 2007b). In Tennessee, the DOT defined a meaningful connection as, “to intercity transportation service (i.e. go directly to the stations served by intercity buses, airlines, or Amtrak service, within 2 hours, or less, of the arrival/departure of those services),” (TranSystems, 2007). In Utah, the definition noted that services funded by FTA Section 5311(f) should have certain characteristics, including, “Provide for meaningful connections with the national intercity bus network... and schedules that minimize connecting times (within 120 minutes before/after designated connecting services),”

(UDOT, 2010). From those states that have defined a “meaningful connection,” the time period noted is between 90 and 120 minutes.

In Montana, the distances between communities with and without “major intercity bus service” can be 100 miles or more. In those cases, local transit systems in the smaller towns are trying to get people to the larger towns for medical appointments, or other purposes, and are not scheduling their service based on when the ICB service is scheduled. This is a matter of practicality, as the arrival and departure times of the local transit service need to be more aligned with the needs of the majority of passengers, most of whom are not connecting to ICB services.

Based on population and distances, a hierarchy of criteria is used to establish a “meaningful connection” to ICB services in Montana. Table 5.9 shows the various criteria, with a discussion of each criterion noted herein.

**Table 5.9: Criteria for Meaningful Connections in Montana to the National Network**

<b>Population</b>	<b>Distance</b>	<b>Marketing</b>	<b>Connection - Location</b>	<b>Connection - Timeframe</b>	<b>Days of Service</b>
50,000 +	N/A	Yes	ICB Terminal	Within 90 minutes	5x/wk (M-F)
25,000-50,000	Less than 60 miles	Yes	ICB Terminal	Within 120 minutes	2x/wk
	60 miles +	Yes	Terminal/Bus Stop	Within 180 minutes	2x/wk
10,000-25,000	Less than 60 miles	Yes	Terminal/Bus Stop	N/A	1x/wk
	60 miles +	Yes	Terminal/Bus Stop	N/A	1x/wk
Under 10,000	N/A	Yes	N/A	N/A	2x/mo

As shown in Table 5.9, a higher standard for a connection to ICB services is noted for urbanized areas. Communities with populations between 25,000 and 50,000 people have a little more flexibility, especially given the distance to the larger urban community. If more than sixty miles, the local transit service can coordinate with the transit service in the larger community, and passengers can transfer to a second transit system, before connecting with the ICB services. While the goal would be to have service five days per week for this sized community, a minimum of two days per week is required (noted in the table as 2x/wk). If a community is within 60 miles of an ICB terminal, the connection should be within two hours (120 minutes) of ICB arrival/departure; with three hours (180 minutes) being acceptable if the smaller community is more than 60 miles from the ICB station.

For communities between 10,000 and 25,000 people, service should be at least once per week (1x/wk), with a goal of two times per week, or more. These smaller communities can transfer passengers to a secondary transit system to make the connection to the ICB service. There is no specific timeframe for when a connection to ICB services needs to be made. For the smallest communities in Montana, the goal is to have service at least twice per month to a larger community with ICB service, although the goal should be service at least once per week.

The connection times noted in Table 5.9 only relate to what may be considered “normal transit hours” which herein are defined as 7:30 am to 5:30 pm. Therefore, a connection does not need to be made to a major ICB terminal, if a major ICB carrier has an arrival or departure that falls outside of the 7:30 am to 5:30 pm timeframe. As noted in Table 5.5, 56 percent (18 of 32) scheduled departures of major ICB carriers are within the 7:30 am to 5:30 pm timeframe. Finally, the “meaningful connections” are on a Monday-Friday basis, with no connections necessary during weekend days (Saturdays and Sundays).

This hierarchy of criteria fits into the FTA regulations and the FTA’s definition of “feeder services” as clarified below:

The “coordination of rural connections between small transit operations and intercity bus carriers” may include the provision of service that acts as a feeder to intercity bus service, and which makes meaningful connections with scheduled intercity bus service to more distant points. The feeder service is not required to have the same characteristics as the intercity service with which it connects, as defined in paragraph 7, above<sup>4</sup>. For example, feeder service may be demand-responsive, while intercity service is by definition fixed route. Examples of eligible costs include marketing and extended hours of service in order to connect with scheduled intercity service. Where feasible, intercity bus feeder service may also provide access to intercity connections with rail or air service. (FTA Circular 9040.1F, 2007, Page VIII-6)

As noted in Table 5.9, all “local” transit systems should provide some marketing material to make riders aware of connections to not only ICB services, but to other modes, including Amtrak and airlines (airports).

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<sup>4</sup>The characteristics of ICB service include: regularly scheduled bus service; available to the general public; making limited stops; operating on fixed routes; connecting two or more urban areas not in close proximity; making meaningful connections (if available); predominantly passenger service (any package/goods service incidental); not a commuter service; and not air, water, or rail service (bus only).

#### **5.4. Summary**

In Montana, local transit agencies provide a wide variety of services including fixed route, demand response, paratransit, and ICB. The general public, senior citizens, and persons with disabilities are the primary beneficiaries of transit services. However, only a few services provide daily service to regional hubs, and connect with national or “major” ICB services. The ability to connect to major ICB services is a function of the size of the community (and by proxy, the size of its transit system), the distance from an ICB station, and the time of day that the ICB service has a departure.

The information herein shows that approximately 44 percent of scheduled ICB departures are outside of the 7:30 am to 5:30 pm timeframe. It is therefore, unreasonable (unfeasible) for local transit systems to make those connections. Furthermore, local transit systems may have significant travel times, based on significant distances, from a rural community to an ICB station/terminal. As noted, a definition of “meaningful connections” that recognizes the various sizes of communities, and distances between those communities in Montana, is a reasonable basis for evaluating and funding transit services in the state (Table 5.9). Finally, Figure 5.7 highlights suggested routes (or increased service) from the Transit Agency survey. It is included herein for summary purposes, and not as a recommendation.

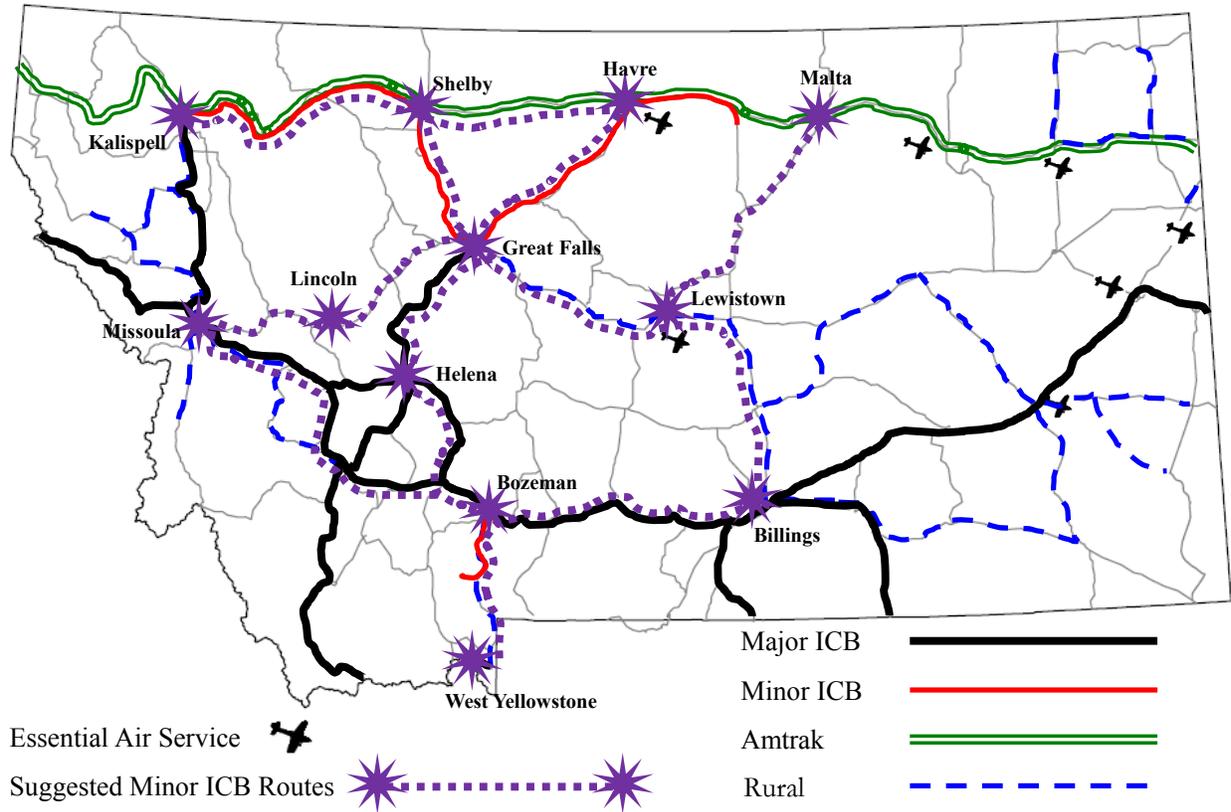


Figure 5.7: Suggested Minor ICB Routes

## 6. ASSESSMENT METHODOLOGY

This chapter provides a current assessment of Montana intercity bus (ICB) services and is focused on providing a methodology that can be used to determine if ICB service needs are being adequately met. If the methodology concludes ICB needs are not being met, the authors propose a process to be used to determine where new services may be implemented.

The FTA provides guidance on the procedures a state should use for certifying whether ICB needs are being met. That guidance is as follows:

The statutory provision for certification by the chief executive officer implies a statewide assessment of intercity bus service currently available and of any existing needs. The legislative history indicates that the assessment of intercity bus needs may be made “relative to other rural needs in the State.” A State certifying that its needs are adequately met must demonstrate that it has assessed statewide intercity mobility needs no more than four years before the date of the certification. The State must document in the State Management Plan (SMP) its consultation process and any process that it develops for periodically assessing statewide needs. FTA will evaluate evidence that the State has followed its process in State management reviews, approximately every three years. A State must certify that the intercity bus service needs of the State are being met adequately for each fiscal year that it does not intend to use 15 percent of its Section 5311 apportionment for intercity bus service. The State may include more than one year in a single signed certification. If the State determines that expenditure of some amount of funds less than the full 15 percent will result in needs being adequately met, it may submit a “partial” certification for the remainder of the 15 percent and spend only the portion needed to ensure that the intercity bus needs are adequately met (FTA, 2007).

While FTA provides guidance on many aspects of the ICB program and recommends “periodically assessing statewide needs” to ensure that “the ICB needs are adequately met”, it does not specifically define “need.” It is important to distinguish that not every need has to be met, but the “needs” (collectively) must be adequately met. “Adequately met” implies that the assessment uses a process whereby a “reasonable” judgment is made in regards to assessing the needs. This reasonable judgment can also be used to assess the cost of providing the various services.

### 6.1. Assessment Methodology

One of this project’s objectives was to provide a methodology that allows the Montana Department of Transportation (MDT) to periodically determine if ICB services needs are being adequately met and determine how much funding should be spent on ICB services. To achieve

this objective, a method that combines an annual process and a triennial consultation process was developed, as shown in Figure 6.1. The process includes five components (steps): the review of existing ICB services, support for existing services, determination of funding balance for ICB services, analysis of potential new services, and funding for new services. The first three steps are used as an annual process to support existing ICB services, and the triennial process is to determine funding for new services. Each step of the assessment methodology is presented in the following sections.

### *6.1.1. Review Existing ICB Services*

The first step in this methodology is to review and evaluate the performance (e.g., ridership, mileage) of existing ICB services in order to assess to what degree the ICB projects have achieved their goals and objectives. The Montana Department of Transportation reviews existing public transportation services within the state through the use of information obtained in quarterly reports submitted by providers. The current review analyzes factors including ridership, mileage, and the area covered by the transit systems.

### *6.1.2. Support Existing Services*

Based on review results, the next step is to make decisions regarding support for existing services. The decisions include two categories: 1) services to be cut or to receive reduced funding, and 2) services to receive level or increased funding. For instance, services that have decreasing ridership may receive reduced funding in the next fiscal year, or could be completely cut, depending upon ridership levels. Alternatively, services with increasing ridership may receive additional funding from MDT. It is recommended that MDT continues to use their current evaluation practices for these initial steps.

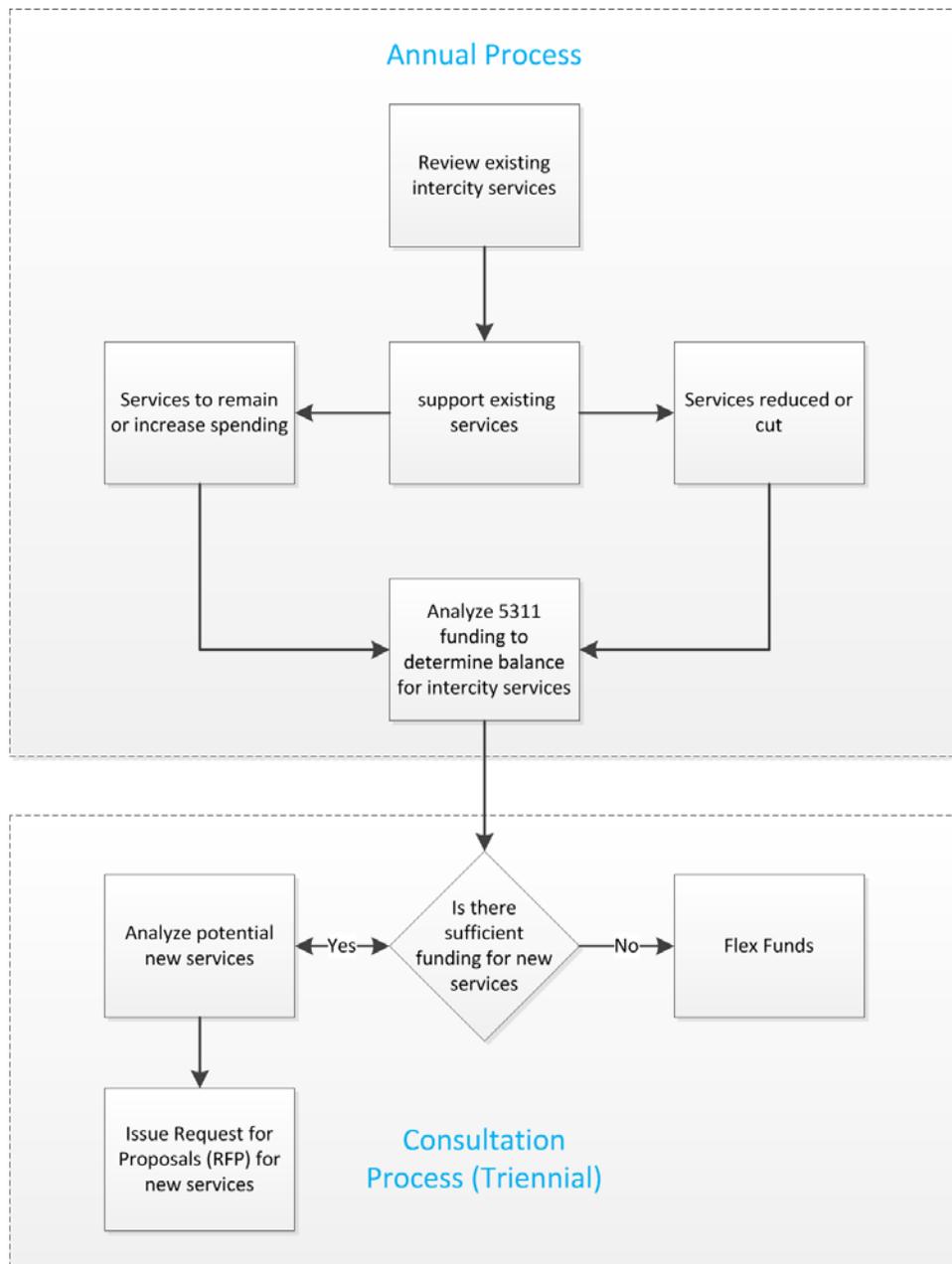


Figure 6.1: Assessment Methodology

### *6.1.3. Determine Balance for ICB Services*

The savings from those services that receive reduced funding, or where funding is cut altogether, will be returned to the State's 5311(f) program fund. This will be balanced by additional spending for those services that would receive increased funding for the next fiscal year. In addition, new ICB services may be proposed (new routes and/or frequency), which could be funded and as a result, increase the amount of 5311(f) program funds to be spent. After reviewing the request, the State will select and determine the funding to support existing ICB services. The balance for ICB services will then be determined based on the above savings and spending. It should be noted that while FTA guidance discusses a target amount for funding ICB services (15% of the Section 5311 funds), it does not preclude a state from spending more than 15% of its Section 5311 funding on ICB services.

### *6.1.4. Determine Funding for New Services*

If there is (sufficient) funding in the 5311(f) program, the State will go through a "consultation process" (which is part of the triennial process) to determine which new services (routes), if any, to support. This could include funding new routes, as well as restoring ICB services that were previously discontinued.

The first step in the process is to determine whether any cities in Montana with a population of 10,000 or more people do not have ICB service (either service from a national provider, or a connection to the national network). The larger communities would be the initial focus of an analysis. If all communities of this size have existing ICB service, an analysis of the next largest communities (with a population between 5,000 and 9,999 people) would be conducted, followed by an analysis of communities with a population between 2,000 and 4,999 people to ascertain whether ICB services or "feeder service" connections to ICB services are available. It is noted that based on the 2010 U.S. Census (CEIC, 2011), Montana has seven cities with a population of 10,000 or more people, nine cities with a population between 5,000 and 10,000 people, and fifteen cities with a population between 2,000 and 4,999 people. As discussed in Chapter 5, FTA allows funding of "feeder services" that connect small transit operations and ICB carriers. It is likely that any spending of FTA Section 5311(f) funding in cities/towns with a population of less than 10,000 people would be for feeder services, which are not subject to the same regulations as other intercity services. Once the initial review of Montana's largest cities is completed, a route analysis would be undertaken.

#### 6.1.4.1. Route Analysis

The purpose of the route analysis is to identify potential ridership on new (or previously cut) ICB routes. This task requires an assessment of current ICB service needs. As presented in previous chapters, surveys of the general public and local transit agencies provided information on cities and city pairs that may be in need of ICB services. The list of cities and/or routes from the surveys can be used as a basis to further identify potential routes most in need of ICB services. The State may use different evaluation criteria to assess potential new service routes such as population (density), transit-dependent population, household income, and automobile ownership. Use of a simple evaluation tool (“toolkit”) to estimate ICB demand based on the populations of locations served is recommended to analyze potential new services. The *Toolkit for Estimating Demand for Rural Intercity Bus Services* (TCRP, 2011) was developed through the Transit Cooperative Research Program (TCRP) program. As displayed in Figure 6.2, the inputs for demand forecasting include state, locations (cities), and route length (one-way length in miles). There are three check boxes to indicate if: 1) the service will be operated by “national intercity bus carrier”, 2) if the proposed route serves a town or city with a state or federal “correctional facility”, and 3) if the proposed service will be serving one or more “airports” with scheduled commercial air service. The population will automatically generate for each of the cities selected in the “Locations Served” column. However, the toolkit uses population information based on the 2000 census. With the 2010 census data available, the 2000 census data may not be accurate if there were significant demographic changes between 2000 and 2010 for the proposed route.

**INPUTS:**  
 To use this toolkit please follow these instructions:  
 1. Select your State in the drop-down menu.  
 2. If an airport or correctional facility will be served by the route, check the respective box.  
 3. If the service will be operated by a national intercity bus carrier, check the 'National Intercity Bus Carrier' box.  
 4. Fill in the estimated length (in miles) of the route in the Route Length box.  
 5. Select the locations from the drop-down menu that will be served along the route.  
 6. To generate results click the 'Output/Results' button.  
 7. To clear existing inputs click the 'Reset Fields' button.

[Click Here for Results](#)     [Click here to Reset Fields](#)

<b>STATE</b>	<b>National Intercity Bus Carrier</b> <input checked="" type="checkbox"/>	<b>Airport</b> <input type="checkbox"/>	<b>Correctional Facility</b> <input type="checkbox"/>	<b>Route Length</b> <input type="text" value="134"/> <small>(miles)</small>
Montana	<a href="#">(info)</a>	<a href="#">(info)</a>	<a href="#">(info)</a>	
<b>LOCATIONS SERVED</b> <a href="#">(info)</a>	<b>POPULATION</b> <a href="#">(info)</a>	<b>LOCATIONS SERVED</b>	<b>POPULATION</b>	
Malta, MT	2,120			
Lewistown, MT Urban Cluster	6,395			

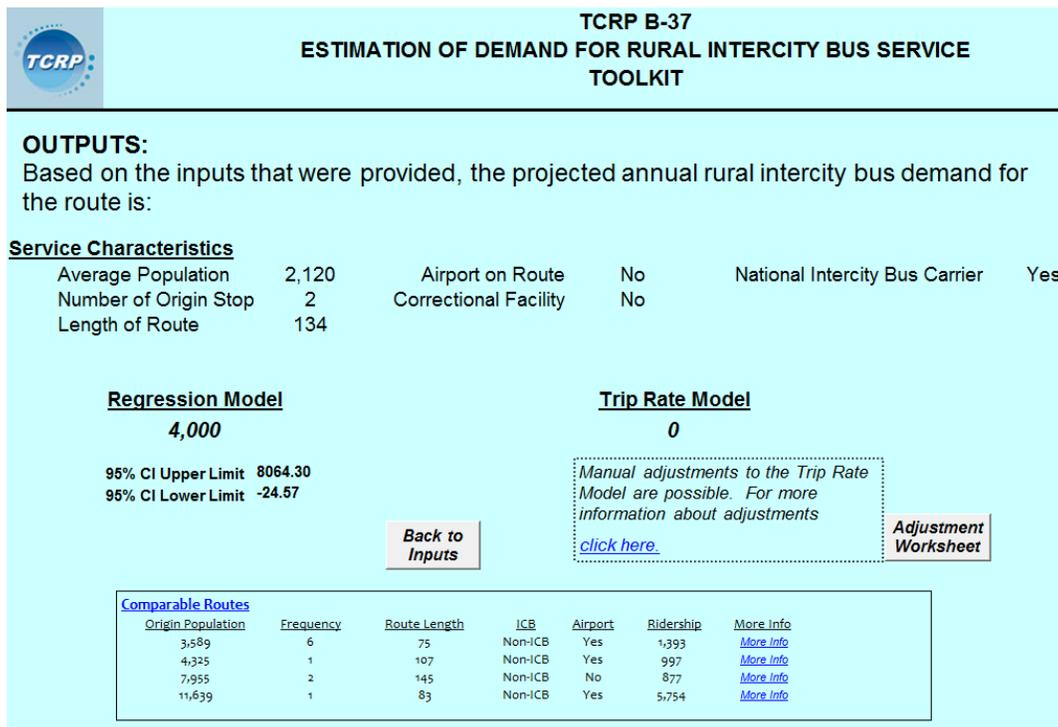
**Figure 6.2: TCRP Toolkit Input Interface**

The following instructions were provided as to the use of the toolkit (TCRP, 2011):

1. Select your State in the drop-down menu.
2. If an airport or correctional facility will be served by the route, check the respective box.
3. If the service will be operated by a national ICB carrier, check the “National Intercity Bus Carrier” box.
4. Fill in the estimated length (in miles) of the route in the Route Length box.
5. Select the locations from the drop-down menu that will be served along the route.
6. To generate results click the “Output/Result” button.
7. To clear existing inputs click the “Reset Fields” button.

Figure 6.3 shows an example of a rural ICB service route from Malta to Lewiston (Montana) assuming a route length of 134 miles and operations by a National ICB Carrier. The forecasted demand by the regression model is 4,000 rides (annual one-way passenger boardings). The regression model uses the average population of the stops served by the route (excluding the largest population stop), the length of the route, whether the route serves an airport, and whether a carrier that is part of the national ICB network would operate the route. The toolkit also

provides a trip rate model that was developed based on data collected from the National Household Travel Survey. In this example, no demand estimate was generated by the trip rate model, which may be due to lack of information. The two models are used to provide more information for users about potential demand estimates. However, as indicated in the report (TCRP, 2011), the regression model is more accurate than the trip rate model. The accuracy of regression model predictions within 50% of actual ridership is 59.6%, as compared to 45.6% for trip rate model predictions.



**Figure 6.3: TCRP Toolkit Output Interface**

Once the route analysis was conducted, MDT would consult with local and intercity transit providers to determine which routes would be the most likely to succeed (attract ridership).

6.1.4.2. Consultation Process

FTA provides specific guidance in terms of what should take place during the consultation process. When discussing the “Governor’s Certification Letter”, the FTA notes, “The letter should include sufficient information regarding the consultation process and needs

assessments for FTA to make an initial determination that the certification is supported by the results of the process” (FTA, 2007). FTA’s consultation process requirements are provided in full below:

#### 4. CONSULTATION PROCESS REQUIREMENTS.

- a. “Consultation” is defined in the joint Federal Highway Administration (FHWA)/FTA Planning Regulations, 23 C FR part 450 as “one party confers with another identified party in accordance with an established process and, before taking action(s), considers that party’s views and periodically informs that party about action(s) taken.” For the purposes of this provision, FTA has adopted this definition of consultation.
- b. The State’s intercity consultation process must include the following elements:
  - (1) Identification of intercity bus providers in the State;
  - (2) Activities the State will perform as part of consultation with identified providers and the intercity bus industry;
  - (3) An opportunity for intercity bus providers to submit proposals for funding as part of the State’s distribution of its annual apportionment; and
  - (4) A direct correlation between the results of the consultation process and a determination that the State’s intercity service needs are adequately being met.
- c. In developing the consultative process elements mentioned above, FTA suggests consideration of the following ideas, many of which are drawn from Transportation Cooperative Research Program (TCRP) Report 79, “Effective Approaches to Meeting Rural Intercity Bus Transportation Needs”:
  - (1) Identifying Private Intercity Carriers. Intercity carriers serving a State can be identified from several sources, including:
    - (a) Russell’s Official National Motor Coach Guide;
    - (b) Websites of private intercity bus operators;
    - (c) Bus Industry Directories;
    - (d) State regulatory agency listings; and
    - (e) Trade associations, such as the American Bus Association and the United Motorcoach Association.
  - (2) Activities of Consultation.
    - (a) Inform intercity bus carriers of the State’s rural planning process and encourage their participation in that process, and where a State is considering possible certification, provide an opportunity to submit comments and/or request a public meeting to identify unmet needs and discuss proposals for meeting those needs.
    - (b) Include intercity providers’ participation in scheduled meetings, such as State agency transit meetings and public transit conferences.
    - (c) Meet with individual intercity providers periodically.
    - (d) Notify providers either through direct mail or advertise in various locations around the State of availability of funds for the current year’s intercity bus program.
    - (e) Inform intercity bus providers about the development of the locally developed, coordinated public transit-human services transportation plans and encourage their participation.

- (f) Solicit comments through direct mail and advertise in newspapers in various locations around the State of the State's intent to certify unless needs are identified.
- (3) Available Resources for Assessment and Analysis of Intercity Bus Needs.
  - (a) It is appropriate and conducive for the State to work in partnership with the American Bus Association, and/or carriers individually, in periodic assessment of needs including meaningful connections to the national intercity bus network.
  - (b) Include an assessment of intercity bus needs in the development of Coordinated Public Transit-Human Services Transportation Plans.
  - (c) Include intercity bus transportation in statewide long range planning.
  - (d) Use Section 5311 State administration funds, statewide planning apportionments, or State Rural Transportation Assistance Program (RTAP) allocations for periodic statewide assessments of needs.

(FTA, 2007)

#### *6.1.5. Determine Whether ICB Needs Are Being Met*

As a result of the analysis and consultation process, the State may certify that ICB service needs are adequately being met, if no new services (routes) are identified that can provide service at a reasonable cost. It is recommended that MDT use a cost per ride and cost per mile analysis when determining whether or not to implement (and/or continue to support) ICB services, including feeder services. It is recommended that the threshold be set at the 85<sup>th</sup> percentile of costs for similar services. Therefore, if a new feeder service is being planned, it should not be implemented if the projected cost per ride is going to be more than the cost per ride at the 85<sup>th</sup> percentile of existing feeder services in Montana.

While there may be requests for new services or routes, as noted earlier, MDT could certify that the needs of the state are being met even if there are requests for new services (these services could be new routes or more frequency on existing routes). Due to the fact that Montana is a rural and frontier state, with only 31 of its 129 cities and towns having a population of 2,000 or more people, it is recommended that MDT focus first on ensuring service to cities with a population of 10,000 or more people, and then supporting service to cities with a population of at least 5,000 people. If there is funding available, support for service to cities with a population of at least 2,000 could be supported. At the time of this document, the only cities with a population between 2,000 and 4,999 people that do not have ICB service are Colstrip and Red Lodge. This means that 94 percent of Montana's largest (most populated) cities have either direct service from national or regional intercity carriers, or feeder services to those carriers. It is recommended

that a threshold of 85 percent of Montana’s largest cities (currently 26 of 31 cities) be used as a determination of whether the needs are being met. If the state determines that the ICB needs of the state are being met, and less than fifteen percent of the Section 5311 funds need to be expended, it can provide a partial certification.

#### 6.1.5.1. Partial Certification

As presented in the FTA’s Circular 9040.1F (FTA, 2007), if the amount of funds less than the 15 percent of 5311 program will result in needs being adequately met, the State “may submit a “partial” certification for the remainder of the 15 percent and spend only the portion needed to ensure that the intercity bus needs are adequately met”. As shown in Table 6.1, MDT has spent between 9 and 12.7% of its FTA Section 5311 funding on ICB services for each of the last four state fiscal years, and a partial certification is the most likely outcome in the future.

**Table 6.1: 5311(f) Budget and Funding in Montana**

<b>State Fiscal Year</b>	<b>5311(f) Funds Available</b>	<b>5311(f) Obligations</b>	<b>Number of Agencies Funded</b>
2008	\$990,406	\$880,955	14
2009	\$1,068,791	\$898,016	12
2010	\$1,127,602	\$802,510	8
2011	\$1,126,539	\$676,268	6
<b>Total</b>	<b>\$4,313,338</b>	<b>\$3,217,749</b>	

However, through the process (analysis) noted herein, there may be a desire to implement new services; in that instance, it is recommended that a Request for Bids (RFB) process be used.

#### 6.1.5.2. Issue Request for Bids (RFB) for New Services

After the potential new services are identified and analyzed, and the consultation process has occurred, the State would decide on which new route (or routes) would be supported with new funding. In order to get the most service for the least cost, it is recommended that MDT utilize a RFB process. Under this process, once MDT has determined which route or routes will be funded, it will issue an RFB and transit providers can bid to operate the new services. The RFB will need to include such parameters as the size of vehicles and frequency of service. Proposals submitted by ICB providers would include the level of funding (support) they would need to operate the service (route). MDT would select the best bid, and work with the provider to

implement the new service. It is recommended that new services be funded for a period of two years. However, if actual ridership is significantly below anticipated levels, funding for new services could be cut after one year (or perhaps even sooner).

As noted earlier, these services would be reviewed, and should be discontinued if the cost per ride (and/or cost per mile) to provide the service is above the 85<sup>th</sup> percentile for similar services. In addition, actual ridership could be compared to the projected ridership, based on the TCRP Toolkit noted herein.

## 6.2. Summary

The main purpose of this chapter was to present an assessment methodology for MDT that can be used periodically (triennially) to determine if ICB service needs are being adequately met, and determine how much funding should be spent on existing and new ICB services. The methodology includes an annual process to support existing ICB services and a triennial consultation process to determine if ICB needs are being met, or if new services should be funded.

As noted herein, MDT already has a process in place to review transit providers on an annual basis to determine funding levels for the subsequent fiscal year. This document provides a process that can occur on a triennial process to determine if ICB service needs are being met, and if not, a process to determine where service should be implemented (provided sufficient funding exists). The primary steps in the process include:

- *Review existing ICB services*
- *Determine level of support for existing services*
- *Determine balance for ICB services*
- *Determine funding for new services (using route analysis and consultation)*
- *Determine whether ICB services are being met (then apply for certification or issue RFB for new services)*

It is recommended that MDT use a threshold of 85 percent of the largest (most populated) cities in the state receiving some level of intercity service to determine whether the state's ICB service needs are being met. Based on the 2010 Census, this threshold would be 26 of 31 cities with a population of 2,000 or more people. The 2010 Census designates 129 cities and towns in

Montana, with 98 ( or 76 percent) each having a population of less than 2,000 people. For analysis in subsequent years, it is recommended that MDT use the latest population estimates from the U.S. Census Bureau, and/or the Montana Census and Economic Information Center.

Currently 29 of 31 of the largest cities in Montana have access to ICB service. If future analyses yield similar results, it is recommended that MDT utilize a partial certification, so that unspent Section 5311(f) funds can be used for other public transportation (transit) services.

## 7. CONCLUSIONS AND RECOMMENDATIONS

The goal of this project was to provide the Montana Department of Transportation a review of intercity bus service practices in similar states, a current assessment of Montana intercity bus (ICB) services, a definition of “meaningful connections” for Montana, and a methodology to be used to determine if ICB needs are being met within the state. In the previous chapters, the research team gathered information from current literature, summarized survey results from rural/frontier states and the general public in Montana, conducted an analysis of ICB network connectivity, defined “meaningful connection” of ICB in Montana, and provided an assessment methodology for MDT to use to determine if ICB needs are being adequately met. This chapter summarizes the findings and conclusions of this research study, and provides recommendations for implementation.

### 7.1. Findings and Conclusions

This project identified some trends in ICB services at the national level. First of all, there is overall growth in utilization of the S.5311(f) program among states, due to needs and opportunities identified through the consultation process and additional FTA funding. Secondly, the majority of states are in the process of needs analysis, consultation (to support certification), or program implementation. Thirdly, the number of states certifying as having no unmet rural ICB services appears to be declining. Under SAFETEA-LU, states planning to certify are required to undergo a consultation process. In many states, such a consultation process resulted in the identification of unmet rural intercity bus needs.

The literature review also found that two main methods have been used for allocating S.5311(f) funds. Some states such as Iowa, Colorado, Minnesota, and Pennsylvania used a grant application process. Some other states (e.g. Washington) used RFPs and contracts. California and Oregon used grants, RFPs, and a mixture of both approaches for intercity bus funding. The S.5311(f) funds were used widely by states in operating assistance, capital assistance, and marketing. States also used the funds for planning studies, administration, and other purposes. Many intercity bus service projects were funded for a combination of purposes, such as operating and capital assistance.

The rural/frontier state survey revealed that six of the nine states (New Mexico, North Dakota, Texas, Utah, Washington, and Oregon) used 15% of their 5311 funds for ICB services.

Two other states (South Dakota and Colorado) used less than 15% of the 5311 funds. These two states used a grantor/grantee system to award funds.

The prioritization and determination of funds for ICB projects/services include two approaches. First, states may have identified areas (or routes) for ICB service. This was usually done through regional and/or statewide ICB studies. States conducting ICB studies to identify routes (areas) were found to use a RFP/bid system to award funds. Second, for those states using a grantor/grantee system to award funds, the general process of determining funds included three steps: 1) submitting proposals by ICB providers; 2) reviewing and/or scoring applications; and 3) determining funds for projects.

The rural/frontier states indicated funding was the most common challenges facing ICB services. Funding issues included: policy on the use of in-kind match, potential federal budget cuts that may be detrimental to local ICB services, and lack of DOT support for allocating funds to support private, for profit companies.

A survey of riders in Montana provided the following major findings:

- Riders of ICB were most often using the service to visit family or friends.
- Most riders stated they used an Internet search or word of mouth to get information about the route they were using at the time of the survey.
- The majority (65%) of all riders surveyed were at least somewhat satisfied with the level of information available about ICB service. Over 70% of Montana residents were at least somewhat satisfied with the frequency of ICB services. Similarly, 69% of Montana residents were satisfied or somewhat satisfied with the available routes of ICB service.
- The three leading factors that lead to ICB use were reported to be lack of access to a vehicle, cost of the service, and gas prices.
- Household income distribution showed that over 50% of all respondents were from a household income of less than \$15,000 per year.

The phone survey of Montanans had the following major findings:

- Over 80% of all respondents traveled over 50 miles to their most visited larger cities and 66% of respondents traveled over 100 miles. The most common travel distance was between 100-199 miles and this was more prevalent for those residing in communities without ICB service.

- Billings, Missoula, Bozeman, Great Falls, and Helena are the cities the respondents most often visited. Respondents more frequently identified Hamilton, Browning, Stevensville, and Havre as cities that needed ICB services.
- Respondents stated they were much more likely to use ICB when traveling alone than with friends or family.
- 70% of respondents from the phone survey indicated that they would be likely or highly likely to ride ICB services, while 70% of respondents felt that the need for ICB travel in Montana were not being met.
- Two factors identified as likely increasing the use of ICB were more conveniently located bus stations and more available information.

When the results of the two surveys (rider survey and phone survey) are combined, they show disconnect between riders (or those who are using the service), and those who haven't used ICB services recently (the majority of those taking the phone survey). Seventy percent of riders who are Montana residents were somewhat satisfied or satisfied with ICB frequency and routes. Conversely, 70 percent of respondents to the phone survey said that their ICB needs were not being met. This may be a case of a respondent justifying their position, e.g., "I don't ride ICB services because they don't meet my needs."

Finally, local transit agencies in Montana provide a wide variety of services including fixed route, demand response, paratransit, and ICB. The general public, senior citizens, and persons with disabilities are the primary beneficiaries of transit services. However, only a few services provide daily service to regional hubs and connections with national or "major" ICB services. The ability to connect to major ICB services is a function of the size of the community (and by proxy, the size of its transit system), the distance from an ICB station, and the time of day that the ICB service has a departure.

## **7.2. Implementation Recommendations**

1. Explore opportunities to enhance ICB services.
  - a) This research study found that there were areas of the state that could potentially use new or additional services (Figure 4.26). While intercity bus services to these communities may meet the needs of those who indicated their needs are not being

met, services to these communities would need to be evaluated for their potential ridership and economic feasibility.

- b) MDT should work with transportation providers to offer more information about ICB services, and perhaps develop better locations for bus terminals.
2. Determine if ICB needs are being met. It is recommended that MDT use a threshold of 85 percent of the largest (most populated) cities in the state receiving some level of intercity service as the determining factor in whether the state's intercity bus service needs are being met. Based on the 2010 Census, this threshold would be 26 of 31 cities with a population of 2,000 or more people. The 2010 Census designates 129 cities and towns in Montana, with 98 (or 76 percent) each having a population of less than 2,000 people. For the analyses that take place between the U.S. Censuses, it is recommended that MDT use the latest population estimates from the U.S. Census Bureau, and/or the Montana Census and Economic Information Center.
3. Implement definition of meaningful connections. The research team used a hierarchy of criteria to define "meaningful connections" based on the sizes of communities and distances between those communities in Montana (Table 5.9). Connection times in the definition of "meaningful connections" relate to "normal transit hours" which fall between 7:30 am and 5:30 pm, Monday through Friday. No connections are necessary during weekend days (Saturdays and Sundays). MDT can use these parameters as a basis for evaluating and funding new services in the state.
4. Adopt process to review intercity bus service needs on a regular basis. MDT already has a process in place to review transit providers on an annual basis to determine funding levels for the subsequent fiscal year. This research study provided a process that can occur on a triennial process to determine if intercity bus service needs are being met, and if not, a process to determine where service should be implemented (providing sufficient funding exists). Currently 29 of 31 of the largest cities in Montana have access to intercity bus service. If future analyses yield similar results, it is recommended that MDT utilize a partial certification, so that unspent Section 5311(f) funds can be used for other public transportation (transit) services.
5. Review and update definition of meaningful connections. Finally, the definition of "meaningful connections" and the assessment methodology provided in this

document were developed with the rural/frontier nature of Montana in mind. While it is recommended that MDT adopt the definition and methodology noted herein, these items may need to be updated in the future if there are changes to the Federal Transit Administration's programs, specifically FTA Section 5311 and 5311(f).

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**APPENDIX A: SURVEY QUESTIONS (RURAL/FRONTIER STATES)****Intercity Bus (ICB) Service Study****1. Introduction**

The Western Transportation Institute (WTI) at Montana State University is working on behalf of the Montana Department of Transportation on a project related to intercity bus (ICB) service.

As a part of this project, WTI is collecting information on the processes that states use to determine the amount of Federal Transit Administration (FTA) Section 5311 funds that are spent on ICB service. We are also investigating the processes states use to disburse funds to intercity bus providers.

While participation in this survey is completely voluntary, we hope that you will share your knowledge of intercity bus practices within your state with us. Within the survey, you will see that we ask for any documentation you may have on your state's intercity bus practices. Please e-mail that documentation to me at my e-mail address noted below. Please contact me if you have any questions about survey or the project. Thank you for your information and participation.

David Kack, Program Manager  
Mobility and Public Transportation  
Western Transportation Institute  
Montana State University  
PO Box 174250  
Bozeman, MT 59717-4250  
(406) 994-7526 Phone  
(406) 994-1697 Fax  
[dkack@coe.montana.edu](mailto:dkack@coe.montana.edu)

**2. Your Contact Information**

Your name, title and e-mail address will be kept confidential, and will not be included in any report generated from this survey.

**1. Your name:****2. Your Job Title****3. Your e-mail address:****4. The name of your organization (DOT):****3. Current Use of 5311 Funds**

### Intercity Bus (ICB) Service Study

#### 5. Does your state currently:

- Use 15% of its 5311 funds toward ICB service?
- Certify ICB service needs are currently met and waive the 15% (uses no 5311 money for ICB service)?
- Certify ICB service needs are currently met but still spend 5311 funds on ICB Service? (If so please enter % used in Box 1)
- Use a portion of the 5311 funds toward ICB service? (If so please enter % used in Box 1)
- Attempt to use all 15% but lack sufficient projects to do so? (If so please enter % used in Box 1)
- Use more than 15% of the 5311 funds toward ICB service
- Other (Use Box 1 to explain)

Box 1

### 4. Use Determination and Allocation

#### 6. What process does your state use to determine what percentage of 5311 funds to use on intercity bus services?

Please e-mail any associated documents to David Kack.

#### 7. If 5311 funds are used for ICB services, how are the funds prioritized for allocation? (e.g. what process, such as a formula or demographic information, is used).

Please e-mail any associated documents to David Kack.

### 5. Awards Practices and Projects

**Intercity Bus (ICB) Service Study**

**8. If 5311 funds are used for ICB service, are funds awarded:**

- Using a grantor/grantee system with potential services applied for similarly to a grant?
- Using a RFP/bid system with potential projects identified by DOT then issuing a RFP on which service providers then bid?
- Using another process (please explain)

**9. Would any of the methods used in determining 5311 fund usage or allocations be considered a best practice by your state?**

- No
- Yes (please describe best practices)

**10. Does your state (any agency including the DOT) actively promote ICB service?**

- No
- Yes (please describe actions taken)

**Intercity Bus (ICB) Service Study**

**11. Does your state have any unique or exceptional ICB projects completed or underway currently that you would like to share with us?**

- No
- Yes (please describe)

**6. Ridership and Service**

**12. In the past two years, have ICB routes/services in your state:**

- Increased
- Decreased
- Stayed the same
- Don't Know

**13. In the past two years, has ICB ridership in your state:**

- Increased (please provide % increase in Box 2)
- Decreased (please provide % decrease in Box 2)
- Stayed the same
- Don't Know

Box 2

**Intercity Bus (ICB) Service Study**

**14. Are there other significant changes in ICB services in your state?**

**15. What do you believe are the most important issues/barriers facing ICB service in your state? (i.e., funding, regulations, reduced service, etc.) Further, what are the opportunities/strategies to address the issues/barriers?**

**7. Thank You**

Thank you for participating in this survey! We appreciate your time and sharing your knowledge on intercity bus issues. We hope you won't mind if we follow up with you to clarify the information you have shared with us.

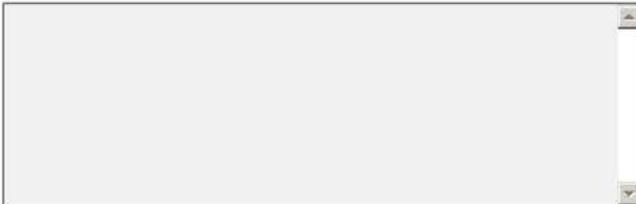
**Intercity Bus (ICB) Service Study**

**16. Please provide any other comments you may have about intercity bus services, either from a national perspective, or related to services in your state.**



**17. Please provide any other studies, information, or examples that will help us understand your efforts relating to intercity bus service in your state. Paste links below or send information to:**

**David Kack, Program Manager  
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## APPENDIX B: RIDER SURVEY

Date: \_\_\_\_\_ Time: \_\_\_\_\_ Location: \_\_\_\_\_

<b>Montana Intercity Bus Rider Survey</b>
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The Western Transportation Institute at Montana State University is administering this survey on behalf of the Montana Department of Transportation to users of this intercity bus services. We are interested in your opinion of intercity bus services in Montana in an effort to better understand the use of these services, as well as determine potential improvements. **Participation in the survey is strictly voluntary.**

As used within this survey, intercity bus service refers to long-distance trips (at least 50 miles) on carriers such as Greyhound, Rimrock Stages and Salt Lake Express. Local bus service refers to bus (transit) services within a community.

1. Where did you start your trip (City, State)? \_\_\_\_\_
2. How did you arrive at the bus station (terminal) where you boarded (or will board) this bus? (check only one)
 

<input type="checkbox"/> Drove myself	<input type="checkbox"/> Driven by someone else	<input type="checkbox"/> Walked	<input type="checkbox"/> Biked	<input type="checkbox"/> Local Bus Service
<input type="checkbox"/> Intercity Bus Service	<input type="checkbox"/> Train	<input type="checkbox"/> Taxi	<input type="checkbox"/> Other (please explain) _____	
3. What is your destination (City, State)? \_\_\_\_\_
4. How will you travel to your final destination, once you leave this bus? (check only one)
 

<input type="checkbox"/> Drive myself	<input type="checkbox"/> Picked up by someone else	<input type="checkbox"/> Walked	<input type="checkbox"/> Biked	<input type="checkbox"/> Local Bus Service
<input type="checkbox"/> Intercity Bus Service	<input type="checkbox"/> Train	<input type="checkbox"/> Taxi	<input type="checkbox"/> Other (please explain) _____	
5. What is your primary purpose for traveling on the bus today? (either going to, or coming from)...
 

<input type="checkbox"/> Work	<input type="checkbox"/> Recreation	<input type="checkbox"/> School	<input type="checkbox"/> Shopping	<input type="checkbox"/> Medical Reasons
<input type="checkbox"/> Visiting Family or Friends		<input type="checkbox"/> Other (please explain) _____		
6. How were you made aware that the route (service) you are traveling today was available? (check all that apply)
 

<input type="checkbox"/> Word of Mouth	<input type="checkbox"/> Print Advertisement	<input type="checkbox"/> Radio Advertisement	<input type="checkbox"/> Television Advertisement
<input type="checkbox"/> Internet Search	<input type="checkbox"/> Internet Advertisement	<input type="checkbox"/> Other (please explain) _____	
7. How satisfied are you with the information available about intercity bus services in Montana?
 

	Somewhat		Somewhat	
Satisfied	Satisfied	Neutral	Dissatisfied	Dissatisfied
<input type="checkbox"/>				
8. For the following question, your personal group is defined as anyone who you are taking this trip with, such as family, spouse, friends, etc. This does not include the larger group on the bus.  
 How many people, including yourself, are traveling on this bus as part of your personal group?  
 \_\_\_\_\_ Number of Adults                      \_\_\_\_\_ Number of Children (under 18)
9. What factors lead you to use the intercity bus service today for this particular trip?  
 (Rank the top three with 1 being the most important)
 

___ Gas Prices	___ Lack of ability to drive	___ Lack of access to a vehicle
___ Safety of service	___ Cost of service	___ Enjoyment of service
___ Frequency of service	___ Ease of use	___ Other (explain) _____
10. If this bus service were not available, how would you have otherwise made this trip? (check only one)
 

<input type="checkbox"/> I would not have made the trip	<input type="checkbox"/> Drive myself	<input type="checkbox"/> Ride with someone else
<input type="checkbox"/> Take an airplane	<input type="checkbox"/> Take a train	<input type="checkbox"/> Other (explain) _____

OVER

11. How satisfied are you with the frequency of intercity bus services in Montana? (check only one)

- |                          |                          |                          |                          |                          |
|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| Satisfied                | Somewhat Satisfied       | Neutral                  | Somewhat Dissatisfied    | Dissatisfied             |
| <input type="checkbox"/> |

12. How satisfied are you with the routes of intercity bus services in Montana? (check only one)

- |                          |                          |                          |                          |                          |
|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| Satisfied                | Somewhat Satisfied       | Neutral                  | Somewhat Dissatisfied    | Dissatisfied             |
| <input type="checkbox"/> |

13. Approximately how many one-way trips per year do you make on intercity bus services? (One round trip is two one-way trips) \_\_\_\_\_

14. Are you more likely to ride intercity bus services: (check only one)

- Within Montana       Between Montana and other states

15. How frequently do you ride public transportation/transit (i.e., a local or “city” bus) for work or commuting? (check only one)

- Never       Infrequently       Monthly       Weekly       Daily

16. What is your gender? \_\_\_ Male \_\_\_ Female

17. What is your age?

- |                                   |                                |                                |                                      |
|-----------------------------------|--------------------------------|--------------------------------|--------------------------------------|
| <input type="checkbox"/> Under 18 | <input type="checkbox"/> 18-24 | <input type="checkbox"/> 25-35 | <input type="checkbox"/> 36-45       |
| <input type="checkbox"/> 46-55    | <input type="checkbox"/> 56-65 | <input type="checkbox"/> 66-79 | <input type="checkbox"/> 80 or older |

18. What is your total annual household income?

- |   |   |   |   |
|---|---|---|---|
| <input type="checkbox"/> Less than \$15,000   | <input type="checkbox"/> \$15,000 to \$29,999 | <input type="checkbox"/> \$30,000 to \$39,999 | <input type="checkbox"/> \$40,000 to \$49,999 |
| <input type="checkbox"/> \$50,000 to \$59,999 | <input type="checkbox"/> \$60,000 to \$74,999 | <input type="checkbox"/> \$75,000 to \$99,999 | <input type="checkbox"/> \$100,000 or higher  |

19. What is the zip code of the residence/home where you received your mail last month: \_\_\_\_\_

If you have a second (or seasonal) residence, what is the zip code of that location: \_\_\_\_\_

Please provide any other comments you have about intercity bus services in Montana

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**Thank you for completing this survey!**

**APPENDIX C: PUBLIC PHONE SURVEY**

Hello my name is \_\_\_\_\_ and I'm calling from Montana State University Billings. We are conducting a survey on behalf of the Montana Department of Transportation interested in your ideas about intercity bus transportation. The survey will take about 10 minutes. Your telephone number was randomly selected by a computer and all answers to this poll will remain confidential. Are you age 18 or older, have lived in Montana for the past 12 months, and able to take the survey at this time?

Before I ask the first questions, let me explain that this survey deals only with intercity bus service. Intercity bus service is regularly scheduled bus service for the general public that operates with limited stops over fixed routes connecting two or more urbanized areas (cities with a population of at least 50,000), and has the capacity for transporting baggage carried by passengers. Intercity bus services can also connect rural areas to urbanized areas.

**1. Have you ridden on an intercity bus in Montana within the past 12 months?**

- A. Yes
- B. No
- C. DK/NR

**2. If Yes, how many trips have you made in this time period?**

- A. 1
- B. 2-3
- C. 3-5
- D. 6-10
- E. 11 or more
- F. DK/NR

**3. Please think about the automobile trips that you made in the past 12 months from your current home to destinations in larger Montana cities or cities located outside of Montana. To which city did you make the most trips? \_\_\_\_\_.****4. Measured in miles, what is the distance from your home to this city? \_\_\_\_\_.****5. Measured in hours or minutes, how long does it take on average to drive to this city? \_\_\_\_\_.****6. Does the vehicle you are most likely to use for these trips run on gasoline or diesel fuel?**

- A. Gasoline
- B. Diesel Fuel
- C. Other.
- D. Don't own an automobile capable of making the trip.
- E. DK/NR

**7. Which of the following describes the average fuel efficiency for this vehicle?**

- A. Less than 10 mpg
- B. 10-15 mpg
- C. 16-20 mpg
- D. 21-25 mpg
- E. 26-30 mpg
- F. 31 mpg or greater
- G. DK/NR

**8. At what point would you use an intercity bus for these trips...**

- A. If the price of gasoline/diesel fuel increased by 25%.
- B. If the price of gasoline/diesel fuel increased by 50%.
- C. If the price of gasoline/diesel fuel increased by 75%.
- D. If the price of gasoline/diesel fuel increased by 100%.
- E. DK/NR

**9. Again thinking about intercity travel to your most frequent destination, would you use an intercity bus for these trips...**

- A. If a local bus left for your destination every 2 hours?
- B. If a local bus left for your destination every 4 hours?
- C. If a local bus left for your destination every 8 hours?
- D. If a local bus left for your destination every 12 hours?
- E. If a local bus left for your destination every 24 hours?
- F. DK/NR

Concerning these same intercity trips, on a scale of one to five with one meaning highly unlikely, 2 representing unlikely, 3 meaning neither likely nor unlikely, 4 representing likely, and 5 representing highly likely, how much do you agree with each of the following statements.

**10. I would ride an intercity bus for trips of less than 1 hour..... 1 – 2 – 3 – 4 – 5 – DK/NR**

**11. I would ride an intercity bus for trips of between 1 and 2 hours.1 – 2 – 3 – 4 – 5 – DK/NR**

**12. I would ride an intercity bus for trips of between 2 and 3 hours1 – 2 – 3 – 4 – 5 – DK/NR**

**13. I would ride an intercity bus for trips of 4 hours or more. .... 1 – 2 – 3 – 4 – 5 – DK/NR**

**14. I would be more likely to ride an intercity bus if I were traveling alone. 1 – 2 – 3 – 4 – 5 – DK/NR**

**15. I would be more likely to ride an intercity bus if I were traveling with friends or relatives..... 1 – 2 – 3 – 4 – 5 – DK/NR**

16. I would ride an intercity bus if I lost my ability to privilege to drive. 1 – 2 – 3 – 4 – 5 – DK/NR

17. I would ride an intercity bus if I lost access to a car. .... 1 – 2 – 3 – 4 – 5 – DK/NR

18. I would ride an intercity bus if bus service were safer. .... 1 – 2 – 3 – 4 – 5 – DK/NR

19. I would ride an intercity bus if bus terminals were cleaner. ... 1 – 2 – 3 – 4 – 5 – DK/NR

20. I would ride an intercity bus if bus terminals were more conveniently located. .... 1 – 2 – 3 – 4 – 5 – DK/NR

21. I would ride an intercity bus if there were more information available about these services. .... 1 – 2 – 3 – 4 – 5 – DK/NR

22. I would never ride an intercity bus. .... 1 – 2 – 3 – 4 – 5 – DK/NR

23. Do you know any Montana communities that would benefit from the addition of intercity bus services from that location?

- A. Yes
- B. No
- C. DK/NR

Which communities are these? \_\_\_\_\_

24. Do you believe that the needs for intercity bus travel are currently being met in Montana?

- A. Yes
- B. No
- C. DK/NR

25. In which communities are these needs not being met? \_\_\_\_\_

26. Is there anything else on the topic of intercity bus travel that you would like to share with us? \_\_\_\_\_

27. What is your age?

- A. 18-24
- B. 25-34
- C. 35-44
- D. 45-54
- E. 55-64
- F. 65-74
- G. 75 and older
- H. Don't know/No response

**28. What city do you live in?**

If respondent does not live in a city ask:

What is the closest city to which you live?

If respondent does not want to name the city they live in ask:

What county do you live in?

**29. What is the highest level of education you have completed?**

- A. Less than high school
- B. High school diploma
- C. Some college
- D. Two year degree/certificate
- E. Four year degree
- F. Post Graduate
- G. Don't know/No response

**30. What is your marital status?**

- A. Single
- B. Married
- C. Divorced
- D. Widowed
- E. Don't know/No response

**31. Which of the following broad based categories best describes your household income before taxes in 2010? (Read responses)**

- A. Less than \$15,000
- B. \$15,000-\$30,000
- C. \$30,001-\$45,000
- D. \$45,001-\$60,000
- E. \$60,001-\$75,000
- F. \$75,001-\$100,000
- G. Over \$100,000
- H. Don't know/No response

**32. What is your gender? (Do not read)**

- A. Male
- B. Female

**APPENDIX D: CONNECTIVIY ANALYSIS SURVEY**

Dear Transit Manager,

You are invited to participate in a survey by the Western Transportation Institute (WTI) at Montana State University. WTI is working on behalf of the Montana Department of Transportation on a project related to intercity bus (ICB) service. As a part of this project, WTI is collecting information to analyze the connectivity of ICB with your transit services. This will help to determine the meaningful connections of ICB to cater the states citizens. Your participation in this study is completely voluntary. It will take approximately ten minutes to complete the questionnaire. Please contact me if you have any questions about survey or the project.

Thank you for your information and participation.

David Kack, Program Manager: Mobility and Public Transportation  
 Western Transportation Institute-Montana State University  
 PO Box 174250 Bozeman, MT 59717-4250  
 (406) 994-7526 Phone  
 (406) 994-1697 Fax  
 dkack@coe.montana.edu

1. Transit Agency Name:

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2. Which of the following services are currently being offered by your agency? (check all that apply)

- 1. Fixed Route (local service)
- 2. Demand Response (local service)
- 3. Paratransit
- 4. Intercity Bus Service
- 5. Other (please specify) \_\_\_\_\_

3. Please list the population group(s) your agency serves. (check all that apply)

- 1. General Public
- 2. Senior Citizens
- 3. Persons with Disabilities
- 4. Commuters
- 5. Others (please specify) \_\_\_\_\_

4. If your agency provides connections to an intercity bus stop, airport, and/or train station (Amtrak), please provide the following information.

	Location(s) (City or town)	# of Monthly Passenger Trips	One-way Fare (\$)
Intercity Bus Stop			
Airport			
Train (Amtrak) Station			

5. Are your transit connections within an hour of the arrival or departure times with the following modes' service schedule?

	Yes	No
Intercity Bus Services	<input type="checkbox"/>	<input type="checkbox"/>
Airlines	<input type="checkbox"/>	<input type="checkbox"/>
Trains (Amtrak)	<input type="checkbox"/>	<input type="checkbox"/>

6. Please provide the layover time for passengers at the applicable locations/services.

	Layover Time
Intercity Bus Service Stop	
Airport	
Train (Amtrak) Station	

7. If your agency does not provide connections to any of the following services, please indicate which of the following statements is most accurate.

	Never provided this service	Previously provided service but have discontinued	Other
Intercity Bus Service	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Airports	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Train (Amtrak) Stations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Other (specify) \_\_\_\_\_

8. Reason for discontinuing the service(s).

- Lack of Funding
- Insufficient Demand
- Other (specify) \_\_\_\_\_

9. To what extent do you feel that local, commuter, and intercity bus service needs are being met in your community?

Note: For completing this question, *local transit* is defined as service to provide basic mobility within a local area (a radius of 10 miles); *commuter service* provides mobility for employment, or accessing health care, education and other services connecting one city/town with another city/town with the towns being 10 to 50 miles apart; and *intercity bus service* is regularly scheduled bus service for the general public that operates with limited stops over fixed routes connecting two or more urbanized areas (cities with a population of at least 50,000), and has the capacity for transporting baggage carried by passengers. Intercity bus services can also connect rural areas to urbanized areas.

	Not at all met	Poorly met	Somewhat met	Generally met	Completely met
Local Bus Service	<input type="checkbox"/>				
Commuter Bus Service	<input type="checkbox"/>				
Intercity Bus Service	<input type="checkbox"/>				

10. Do you believe that there are unmet intercity bus service needs in your area? If yes, please provide your comments.

- Yes
- No

Comments: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

11. Please indicate the top five routes (origins and destinations) that you believe would benefit from new or improved intercity bus services.

Ranking	From (City or Town)	To (City or Town)
1.		
2.		
3.		
4.		
5.		

12. Please provide any other comments you may have related to commuter or intercity bus services in your area (for example: additional funding, regional coordination, new vehicles, etc).

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**Thank you very much for completing the survey!**

Please fax your completed survey to 406-994-1697 Attention: David Kack

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